













CALCUTTA GAZZ  
JULY-DEC

1893

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# THE CALCUTTA GAZETTE

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# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, JULY 5, 1893.

## OFFICIAL PAPERS.

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## RETURNS OF JOINT-STOCK COMPANIES FOR THE YEAR 1892-93.

### No. I.

#### Abstract of Joint-stock Companies.

	COMPANIES DIVIDED INTO SHARES.			COMPANIES LIMITED BY GUARANTEE, &c., POSSESSING NO CAPITAL PAID UP.	
	Number of companies.	Nominal capital.	Paid-up capital.	Number of companies.	Number of members.
		Rs.	Rs.		
Working at close of 1891-92 ..	324	15,56,08,475	11,64,81,728		
Registered during 1892-93 ..	20	39,33,000	.....		
Capital increased during 1892-93 ..	7	6,00,000	.. ..		
Capital decreased during 1892-93 ..	...	.....	.....		
Ceased to work during 1892-93 ..	19	1,12,45,000	36,27,905		
Working at close of 1892-93 ..	325	14,88,96,475	11,91,06,518		

## No. II.

## Joint-stock Companies registered during the year 1892-93.

Number on the register.	Date of registration.	Classification and name of company.	Objects of company.	Nominal capital.	Paid-up capital.	Situation of registered office.
		<b>I.—BANKING, LOAN, AND INSURANCE COMPANIES.</b>		Rs.	Rs.	
		<i>(a) Banking and Loan Companies.</i>				
728	22nd August 1892	Bagirhat Loan Co., Ltd.	Lending money ...	10,000		Chandra Kanta Dass' Place, Bagirhat.
743	23rd Feb. 1893	Madaripur Loan Office, Ltd.	Banking business ...	20,000		
			Total of Banking and Loan Cos.	30,000		
		<i>(b) Insurance Companies.</i>				
		<b>II.—TRADING COMPANIES.</b>				
		<i>(a) Merchants and Traders.</i>				
729	1st Sept. 1892	Himalayan Trading Co., Ltd.	General trade ...	50,000		No. 47, Ezra Street, Calcutta
732	22nd " "	Bengal Fisheries, Ltd.	Fishing in the Bay of Bengal and fish merchants.	2,50,000		
				3,00,000		
		<i>(b) Navigation.</i>				
		<i>(c) Railways and Tramways.</i>				
		<i>(d) Co-operative Associations.</i>				
		<i>(e) Shipping, Landing, and Warehousing.</i>				
			Total of Trading Cos. ...	3,00,000		
		<b>III.—MILLS AND PRESSES.</b>				
		<i>(a) Cotton Mills.</i>				
		<i>(b) Jute Mills.</i>				
725	1st August 1892	Soorah Jute Mills Co., Ltd.	Spinning and weaving jute, &c.	7,00,000		No. 12, Malik Street, Burrabazar, Calcutta (since removed to 14-2, Clive Row).
				7,00,000		
		<i>(c) Mills for Cotton, Jute, Wool, Silk, Hemp, &amp;c.</i>				
741	25th Jan. 1893	Oriental Hosiery Manufacturing Co., Ltd.	Manufacturing thread from cotton, wool, or silk and other knitted articles.	2,00,000		
				2,00,000		
		<i>(d) Cotton and Jute Screws and Presses.</i>				
		<i>(e) Other Mills and Presses.</i>				
727	5th August 1892	Berhampore Shambhu Mill Co., Ltd.	Manufacturing oil, soorkee and flour.	25,000		Deyanagore, Berhampore, Murshidabad.
733	22nd Oct. "	Cachar Saw Mill and Trading Co., Ltd.	Saw and other mills for manufacturing bones, oil, and flour.	50,000		
74	10th March 1893	Calcutta Roller Flour Mills Co., Ltd.	Manufacturing flour, oil, &c.	1,50,000		
				2,25,000		
			Total of Mills and Presses	11,25,000		

Date of registration.	Classification and name of company.	Objects of company.	Nominal capital.	Paid-up capital.	Situation of registered office.
	IV.—TEA AND OTHER PLANTING COMPANIES.		Rs.	Rs.	
	(a) Tea.				
789 29th Dec. 1892	Central Doorga Tea Co., Ltd. ...	Cultivate tea, &c. ..	4,00,000		No. 31, Dalhousie Square, Calcutta. No. 1A, Lal Bazar Street, Calcutta.
742 1th Feb. 1893	Tilakah Tea Co., Ltd. ...	Cultivate tea ...	40,000		
			4,40,000		
		Total of Planting Cos.	4,40,000		
	(b) Coffee and Cinchona.				
	(c) Others.				
	V.—MINING AND QUARRYING.				
	(Coal).				
730 2nd Sept. 1892	South Burrakur Coal Co., Ltd.	Mining coal ...	5,00,000		No. 5 Fairlie Place, Calcutta. No. 18, Swallow Lane, Calcutta. No. 12, Mission Row Calcutta.
731 17th " "	Baraboni Coal Co., Ltd. ...	Ditto ...	2,00,000		
735 6th Dec. "	Burma Coal Co., Ltd. ...	Ditto ...	7,50,000		
			14,50,000		
		Total of Mining and Quarrying Cos.	14,50,000		
	VI.—ICE MANUFACTURING.				
721 6th April 1892	Dacca Ice Co., Ltd. ...	Manufacturing ice ...	3,000		
			3,000		
		Total of Ice Manufacturing Cos.	3,000		
	VII.—SUGAR MANUFACTURING.				
	VIII.—BREWERIES.				
	IX.—OTHERS.				
722 18th April 1892	Indian Match Factory, Ltd. ...	Manufacturing matches.	70,000		No. 66, College Street Calcutta. No. 6, Church Lane, Calcutta.
726 2nd August "	Driscoll's Patent Life and Property Saving Apparatus Manufacturing Co., Ltd.	Ditto and selling life-buoys, &c.	2,00,000		
734 2nd Nov. "	Indian Aerating Gas Factories, Ltd.	Manufacturing carbonic acid gas. ....	2,00,000		
738 28th Dec. "	"Ruby" Patent Mica Non-Conducting Boiler Composition Syndicate, Ltd.		1,10,000		
740 7th Jan. 1893	National Union Fund Co., Ltd.	Provide for payment of a lump sum of money to the heirs of a deceased shareholder.	5,000		No. 4, Nobokumar Raha's Lane, Calcutta.
		Total of other Cos. ...	5,85,000		

## No. III.

Companies limited by guarantee registered during the year 1892-93.

Number on the register.	Date of registration.	Classification and name of company.	Objects of company.	Number of members.	Situation of registered office.
		Nil.			

## No. IV.

*Joint-stock Companies that have increased their capital during the year 1892-93.*

Number on the register.	Date of registration.	Classification and name of company.	Date of increase.	PREVIOUS CAPITAL.		PRESENT CAPITAL.		DIFFERENCE.	
				Nominal.	Paid up.	Nominal.	Paid up.	Nominal.	Paid up.
		I.—BANKING LOAN AND INSURANCE COMPANIES. (a) <i>Banking and Loan Companies.</i> (b) <i>Insurance Companies.</i> II.—TRADING COMPANIES. (a) <i>Merchants and Traders.</i>		Rs.	Rs.	Rs.	Rs.	Rs.	
600	16th May 1890	Tangra Tannery and Manure Co., Ltd. (b) <i>Navigation.</i> (c) <i>Railways and Tramways.</i> (d) <i>Co-operative Associations.</i> (e) <i>Shipping, Landing and Warehousing.</i> III.—MILLS AND PRESSES. (a) <i>Cotton Mills.</i> (b) <i>Jute Mills.</i> (c) <i>Mills for Cotton, Jute, Wool, Silk, Hemp, &amp;c.</i> (d) <i>Cotton and Jute Screws and Presses.</i> (e) <i>Other Mills and Presses.</i>	25th June 1892	50,000	50,000	1,00,000	50,000	50,000	
590	28th Jan. 1890	Bengal Paper Mills Co., Ltd.	5th May 1892	7,00,000	6,96,250	8,00,000	6,96,250	1,00,000	
727	5th Aug. 1892	Berhampore Shambhu Mill Co., Ltd.	30th Jan. 1893	25,000	...	50,000	...	25,000	
		IV.—TEA AND OTHER PLANTING COMPANIES. (a) <i>Tea.</i>							
601	14th May 1890	Gairkhata Tea Co., Ltd....	27th Apr. 1892	2,00,000	1,60,000	2,50,000	1,60,000	50,000	
580	15th Aug. 1889	Anjuman Tea Co., Ltd. ...	4th Jan. 1893	1,50,000	90,000	2,25,000	90,000	75,000	
		(b) <i>Coffee and Cinchona.</i> (c) <i>Others.</i> V.—MINING AND QUARRYING.							
631	30th Sept. 1890	Patkoom Prospecting Syndicate, Ltd.	7th May 1892	1,00,000	86,675	1,50,000	86,675	50,000	
657	29th Nov. 1890	Palganj Gold Prospecting Syndicate, Ltd.	2nd and 10th Sept. 1892.	50,000	50,000	3,00,000	50,000	2,50,000	
		VI.—ICE MANUFACTURING. VII.—SUGAR MANUFACTURING. VIII.—BREWERIES. IX.—OTHERS.							
								6,00,000	

## No. V.

*Joint-stock Companies that have reduced their capital during the year 1892-93.*

Number on the register.	Date of registration.	Classification and name of company.	Date of reduction.	PREVIOUS CAPITAL.		PRESENT CAPITAL.		DIFFERENCE.	
				Nominal.	Paid up.	Nominal.	Paid up.	Nominal.	Paid up.
			<i>Nil.</i>						

No. VI.

*Joint-stock Companies that, having ceased to work, have gone into liquidation or have been finally dissolved (or otherwise become defunct) during the year 1892-93.*

Number on the register.	Date of registration.	Classification and name of company.	Nominal capital.	Paid-up capital.	Date of going into liquidation.	Date of final dissolution.
		I.—BANKING, LOAN, AND INSURANCE COMPANIES.	Rs.	Rs.		
		(a) <i>Banking and Loan Companies.</i>				
684	11th April 1891	Chota Nagpur Bank, Ltd. ...	2,00,000	...	.....	Defunct.
		(b) <i>Insurance Companies.</i>				
547	9th Nov. 1887	Reliance Marine Insurance Office, Ltd.	20,00,000	52,500	21st July 1892	
577	3rd July 1889	Indian Imperial Marine Insurance Co., Ltd.	30,00,000	3,75,000	15th Dec. 1892	
		II.—TRADING COMPANIES.				
		(a) <i>Merchants and Traders.</i>				
		(b) <i>Navigation.</i>				
203	12th July 1886	Burmah Steam Tug Co., Ltd. ...	3,00,000	1,89,000	25th June 1889	24th Aug. 1892.
446	24th Aug. 1882	Orissa Coasting Steam Navigation Co., Ltd.	4,00,000	2,84,075	.....	Defunct.
		(c) <i>Railways and Tramways.</i>				
581	23th Aug. 1889	Patna Tramway Co., Ltd. ...	2,00,000	...	.....	Do.
		(d) <i>Co-operative Associations.</i>				
		(e) <i>Shipping, Landing and Warehousing.</i>				
515	1st July 1885	Guyana Boat Co., Ltd. ...	20,000	...	.....	Do.
		III.—MILLS AND PRESSES.				
		(a) <i>Cotton Mills.</i>				
		(b) <i>Jute Mills.</i>				
		(c) <i>Mills for Cotton, Jute, Wool, Silk, Hemp, &amp;c.</i>				
		(d) <i>Cotton and Jute Screens and Presses.</i>				
		(e) <i>Other Mills and Presses.</i>				
		IV.—TEA AND OTHER PLANTING COMPANIES.				
		(a) <i>Tea.</i>				
532	12th July 1886	Chapaguri Tea Co., Ltd. ...	1,50,000	1,50,000	6th Feb. 1892	10th June 1892.
385	10th April 1879	Munjha Tea Co., Ltd. ...	1,50,000	1,50,000	28th Dec. 1891	27th June "
304	27th Nov. 1874	Chota Nagpur Tea Co., Ltd. ...	2,50,000	2,50,000	2nd July 1892	
291	28th July	Tendareen Co., Ltd. ...	1,35,000	1,35,000	14th July "	9th Sept. "
417	27th July 1881	Chengra Tea Co., Ltd. ...	1,50,000	1,50,000	14th Dec. 1890	24th Sept. "
442	5th July 1882	Mesni Tea Co., Ltd. ...	2,50,000	2,50,000	28th Jan. 1892	7th Oct. "
352	23rd March 1877	Dhunsiri Tea Co., Ltd. ...	1,60,000	1,60,000	4th Nov. "	
158	20th July 1864	Moran Tea Co., Ltd. ...	6,00,000	4,80,000	2nd Dec. "	
		(b) <i>Coffee and Cinchona.</i>				
		(c) <i>Others.</i>				
		V.—MINING AND QUARRYING.				
697	4th Aug. 1891	Nowdeah Prospecting Syndicate, Ltd.	1,00,000	...	22nd April 1892	
652	7th Nov. 1890	Mining and Prospecting Co., Ltd.	4,50,000	1,48,450	22nd July "	
632	30th Sept. "	Dhodka Mining Co., Ltd. ...	10,00,000	10,00,000	8th Aug. "	
691	25th May 1891	Indian Patent Stone Co., Ltd. ...	1,00,000	...	11th Jan. 1893	21st Feb. 1892.
622	4th Sept. 1890	Pat-Pat (old Mining Co., Ltd. ...	10,30,000	7,41,840	24th Feb. "	
666	23rd Jan. 1891	Padros Hill Mining Co., Ltd. ...	6,00,000	...	4th March "	
642	11th Oct. 1890	Sonakhon Gold and Mining Co., Ltd.	8,00,000	...	9th March "	
644	17th Oct. "	Baghmundi Gold Prospecting Syndicate, Ltd.	4,00,000	...	25th Aug. 1891	29th March "
638	3rd Jan. 1891	Cosaye River Prospecting Syndicate, Ltd.	50,000	...	.....	Defunct.

Number on the register.	Date of registration.	Classification and name of company.	Nominal capital.	Paid-up capital.	Date of going into liquidation.	Date of final dissolution.
		VI.—ICE MANUFACTURING. VII.—SUGAR MANUFACTURING. VIII.—BREWERIES. IX.—OTHERS.	Rs.	Rs.		
543 391	5th Aug. 1887 6th June 1879	Bengal Science and Art Union, Ld. Kanknarrah Lime Factory Co., Ld.	1,50,000 10,000	8,140 9,320	19th Sept. 1890	Defunct. 28th March 1893.
		Total ..	1,12,45,000	36,28,905		

## No. VII.

*Companies limited by guarantee that, having ceased to work, have gone into liquidation or have been finally dissolved (or otherwise become defunct) during the year 1892-93.*

Number on the register.	Date of registration.	Classification and name of company.	Number of members.	Date of going into liquidation.	Date of final dissolution.
		<i>Nil.</i>			

## No. VIII.

*List of Joint-stock Companies at work on 31st March 1893.*

Number on the register.	Date of registration.	Classification and name of company.	Objects of company.	Nominal capital.	Paid-up capital.	Situation of registered office.
		I.—BANKING, LOAN, AND INSURANCE. (a) <i>Banking or Loan Companies.</i>		Rs.	Rs.	
221	7th April 1869	Hongkong and Shanghai Banking Corporation.	Banking business ..	2,25,00,000	2,25,00,000	No. 31, Dalhousie Square, South, Calcutta.
225	13th June 1870	Faridpur Loan Office, Ld. ...	" " ...	20,000	19,820	Faridpur town.
226	25th Mar. 1871	Tippera Loan Office, Ld. ...	" " ...	1,00,000	95,990	Gangagunge, Comilla, Tippera.
268	23rd Sept. 1873	Mymensingh Loan Office, Ld.	" " ...	1,00,000	80,400	Mymensingh town.
270	17th Nov. ...	Barisal Loan Office, Ld. ...	" " ...	20,000	18,000	Barisal town.
301	5th Nov. 1874	Bogra Loan Office, Ld. ...	" " ...	20,000	12,500	Bogra town.
326	26th Sept. 1875	Nasirabad Loan Office, Ld. ...	" " ...	50,000	28,050	Nasirabad town. Mymensingh.
333	12th April 1876	Jessore Loan Co., Ld. ...	Lending money ...	1,20,000	1,00,000	Jessore town.
336	26th June "	Sahar-Serpur Loan Office, Ld.	" " ...	20,000	10,170	Serpur town. Mymensingh.
342	29th July "	Munshiganj Loan Office, Ld.	" " ...	20,000	12,010	Munshiganj, Dacca.
399	26th Feb. 1880	Hindu Union Bank, Ld. ...	Banking business ...	20,000	1,530	Jamalpur, Monghyr.
401	29th Mar. "	Dacca Loan Office, Ld. ...	Lending money ...	2,00,000	1,39,060	No. 25, Islampur, Dacca.
418	13th Aug. 1881	Sylhet Loan Co., Ld. ...	" " ...	20,000	6,690	Sylhet town.
467	21st Feb. 1883	Chota Nagpur Banking Association, Ld.	Banking business ...	20,000	20,000	Hazaribagh.
478	8th Aug. "	Pabna Bank, Ld. ...	Lending money ...	20,000	15,000	Raghabpore, Pabna.
484	19th Sept. "	Kishoreganj Loan Office, Ld.	" " ...	50,000	32,370	Kishoreganj, Mymensingh.
566	2nd Mar. 1885	Noakhali Loan Office, Ld. ...	" " ...	20,000	9,750	Noakhali, Salar.
537	12th Feb. 1887	Tangail Loan Office, Ld. ...	" " ...	50,000	20,270	Tangail, Mymensingh.

Number on register.	Date of registration.	Classification and name of company.	Objects of company.	Nominal capital.	Paid-up capital.	Situation of registered office.
		<b>I. - BANKING, LOAN, AND INSURANCE—concl.</b> (a) <i>Banking or Loan Companies—concl.</i>		Rs.	Rs.	
540	27th July 1887	Ghatail Sammiloni Dhan Bhandar Co., Ltd.	Lending money ...	20,000	18,050	Ghatail station, Gopalporo, Mymensingh.
542	4th Aug. "	Kurigram Loan Office, Ltd. ...	" " ...	20,000	20,000	Madhyapara, Kurigram.
546	15th Sept. "	Khulna Loan Co., Ltd. ...	" " ...	15,000	15,000	Khulna town.
553	2nd May 1888	Digh Pait Milit Dhan Bhandar Co., Ltd.	" " ...	1,00,000	18,380	Digh Pait, Jamalpur, Mymensingh.
574	23rd May 1889	Jalpaiguri Banking and Trading Corporation, Ltd.	Banking business ...	1,00,000	11,424	Jalpaiguri.
597	24th Mar. 1890	Bankipore Loan Office, Ltd.	Lending money ...	50,000	18,350	Bankipore, Patna.
663	13th Jan. 1891	Umballa Bank, Ltd. ...	Banking business ...	2,00,000	.....	No. 6, Strand Road, Calcutta.
728	22nd Aug. 1892	Bagirhat Loan Co., Ltd. ...	Lending money ...	10,000	.....	Chandra Kanta Dass' Place, Bagirhat.
743	23rd Feb. 1893	Madaripur Loan Office, Ltd.	Banking business ...	20,000		
				2,39,05,000	2,32,34,824	
		<b>(b) Insurance Company.</b>				
545	5th Sept. 1887	Triton Insurance Co., Ltd. ...	Insurance business	22,50,000	4,50,000	No. 4, Clive Row, Calcutta.
				22,50,000	4,50,000	
			Total of Banking, Loan and Insurance Companies.	2,61,55,000	2,36,84,824	
		<b>II.—TRADING COMPANIES.</b> (a) <i>Merchants and Traders.</i>				
90	1st April 1863	R. Scott Thomson and Co., Ltd.	Carrying on business of chemists and druggists.	5,00,000	4,67,000	No. 15, Government Place, Calcutta.
274	18th Dec. 1873	Agricultural Phosphates Co., Ltd.	Manufacturing Phosphates.	1,00,000	85,000	No. 7, Church Lane, Calcutta.
383	20th Mar. 1879	Narail Trading Co., Ltd. ...	General trade and lending money.	20,000	6,668	Narail, Jessore.
411	7th Feb. 1881	Pingna Trading Co., Ltd. ...	Ditto ditto ...	1,00,000	57,125	Pingna, Mymensingh.
440	31st May 1882	Co-operative Pharmacy Co., Ltd.	Business of chemists and druggists.	50,000	29,940	No. 54, Sobha Bazar Street, Calcutta.
523	4th Feb. 1886	Great Eastern Hotel Wine and General Purveying Co., Ltd.	Business of hotel-keeping and general dealers.	12,00,000	12,00,000	Nos. 1, 2, and 3, Old Court House Street, Calcutta.
549	8th Dec. 1887	Indian Tea Supply Co., Ltd.	Dealer in Indian teas.	3,00,000	3,00,000	No. 25, Mungoe Lane, Calcutta.
556	15th June 1888	M. Dear and Co., Ltd. ...	Mercantile business	6,00,000	6,00,000	No. 5/8, Clive Street, Calcutta.
561	29th Nov. "	Bihar Commercial Co., Ltd. ...	General trade ...	20,000	.....	
568	20th Feb. 1889	Chota Nagpur Carrying Co., Ltd.	Carrying passengers and goods from Ranchi.	20,000	7,904	Hazaribagh.
570	5th Mar. "	Kayastha Trading Co., Ltd. ...	General trade ...	20,000	8,800	Dumraon, Shahabad.
584	7th Nov. "	Jessop and Co., Ltd. ...	Brass and iron founders.	9,00,000	9,00,000	No. 93, Clive Street, Calcutta.
591	4th Feb. 1890	Rajshahi Dhanes Co., Ltd. ...	General trade ...	20,000	1,463	Lalore, Rajshahi.
594	24th "	Calcutta Skating and Amusement Club, Ltd.	Amusements ...	1,00,000	.....	No. 135, Canning Street, Calcutta.
606	16th May "	Tangra Tannery and Manure Co., Ltd.	Tanning hides and crushing bones.	1,00,000	50,000	No. 4, Clive Row, Calcutta.
671	11th Feb. 1891	O. Hanlon and Co., Ltd. ...	Manufacturing paint and other oleaginous substance.	10,000	10,000	No. 5, Lyon's Range, Calcutta.
674	21th "	Bengal Timber Trading Co., Ltd.	Trading in timber	1,00,000	55,000	No. 4, Clive Row, Calcutta.
692	29th May "	"Hitabadi" Printing and Publishing Co., Ltd.	Printing and publishing newspaper.	25,000	.....	No. 63, Bechu Chatterjee's Street, Calcutta.
694	24th June "	Panari Trading Corporation, Ltd.	Farming business ...	2,00,000	.....	
696	24th July "	Nagra Timber Co., Ltd. ...	To work in timber...	40,000	40,000	No. 4, Clive Row, Calcutta.
698	8th Aug. "	Elysium Dramatic Co., Ltd. ...	To establish a theatre in the heart of the town.	3,00,000	80,247	No. 14, Goa Bagan Street, Calcutta.
702	10th Sept. "	Tangail Trading Co., Ltd. ...	General trade ...	50,000	910	Tangail, Mymensingh.
703	14th "	Kinmond and Co., Ltd. ...	Engineers, contractors, and builders.	10,000	7,000	No. 14, Old Court House Lane, Calcutta.
708	5th Dec. "	Bihar Trading Co., Ltd. ...	General trade ...	20,000	4,350	Bankipore, Patna.
710	11th "	John King and Co., Ltd. ...	Engineers and contractors.	3,00,000	3,00,000	Victoria Engine Works, Howrah.

Number on the register.	Date of registration.	Classification and name of company.	Objects of company.	Nominal capital.	Paid-up capital.	Situation of registered office.
II.—TRADING COMPANIES— <i>concl'd.</i>				Rs.	Rs.	
(a) <i>Merchants and Traders—concl'd.</i>						
714	2nd Jan. 1892	Khulna Trading Co., Ltd. ..	General trade ..	50,000	1,072	Khulna, Sadar.
716	18th Jan. "	Kurigram Model Co., Ltd. ...	Stamp vendors and general traders.	20,000	.....	
720	25th Mar. "	Oriental Trading Co., Ltd. ...	Trade in timber ...	30,000	.....	No. 187, Darma-hatta Street, Calcutta.
729	1st Sept. "	Himalayan Trading Co., Ltd.	General trade ...	50,000	.....	
732	22nd " "	Bengal Fisheries, Ltd. ...	Fishing in the Bay of Bengal and fish merchants.	2,50,000	.....	No. 47, Ezra Street, Calcutta.
				55,05,000	42,12,479	
(b) <i>Navigation.</i>						
456	8th Nov. 1882	Calcutta Steam Navigation Co., Ltd.	Navigating in Bengal.	8,40,000	8,40,000	No. 38, Strand Road, Calcutta.
620	14th Aug 1890	India General Steam Navigation Co., Ltd.	Conveying goods and passengers.	80,00,000	70,74,400	No. 4, Fairlie Place, Calcutta.
705	3rd Oct. 1891	Eastern Steam Navigation Co., Ltd.	Navigating business	3,00,000	.....	
				91,40,000	79,14,400	
(c) <i>Railways and Tramways.</i>						
386	10th April 1879	Darjeeling-Himalayan Railway Co., Ltd.	Constructing and working steam tramway.	17,50,000	17,50,000	No. 5-8, Clive Street, Calcutta.
425	30th Jan. 1882	Deoghur Railway Co., Ltd. ...	Constructing railway from Baidyannath to Deoghur.	2,75,000	2,75,000	No. 7, Hastings Street, Calcutta.
492	18th Feb. 1884	Tarkessur Railway Co., Ltd.	Constructing railway from Seoraphuli to Tarkessur.	17,50,000	17,50,000	No. 38, Strand Road, Calcutta.
567	15th Feb. 1889	Rangoon Steam Tramway Co., Ltd.	Constructing tramway in Rangoon.	7,50,000	6,00,000	No. 5-8, Clive Street, Calcutta.
613	23rd June 1890	Bengal Provincial Railway Co., Ltd.	Constructing railway from Tarkessur to Mogra.	8,00,000	2,02,179	No. 300, Bow Bazar Street, Calcutta.
				53,25,000	45,77,179	
(d) <i>Co-operative Associations.</i>						
250	13th Feb. 1873	Asansol E. I. R. Co-operative Society, Ltd.	Providing wines and spirits for the railway employes.	10,000	10,000	Durand Road, E. R. R.
263	25th May "	Buxar Co-operative Society, Ltd.	Selling wines, beer, and oilman's stores.	4,000	4,000	No. 2, Buxar Road, Buxar.
439	30th May 1882	Northern Bengal Railway Co-operative Supply Association, Ltd.	Supplying stores for the railway employes.	11,400	11,400	Saidpur, N. B. R.
548	30th Nov. 1887	Asansol Railway Co-operative Ice and Aerated Water Supply, Ltd.	Supplying ice and aerated water for the railway employes.	16,000	16,000	Icehouse Tank Road, Asansol.
617	4th Aug. 1890	Jamalpur Co-operative Association, Ltd.	Trade in co-operative stores.	8,000	4,000	Jamalpur, E. I. R.
695	10th July 1891	South Sylhet Supply Society, Ltd.	Ditto ditto ...	12,000	.....	Matigunge, South Sylhet.
				61,400	45,400	
(e) <i>Shipping, Landing, and Warehousing.</i>						
114	7th Aug. 1863	Calcutta Landing and Shipping Co., Ltd.	Landing and shipping cargo.	5,00,000	4,20,000	No. 24, Strand Road, Calcutta.
120	15th Sept. "	Howrah Docking Co., Ltd. ...	Improvement of existing docks and building and working other.	8,00,000	8,00,000	No. 5, Bentinck Street, Calcutta.
661	23rd Dec. 1890	Cargo Boat Co., Ltd. ...	Landing and shipping.	50,000	10,000	No. 134, Canning Street, Calcutta.
				13,50,000	12,30,000	
Total of Trading Companies.				2,13,81,400	1,79,79,458	
III.—MILLS AND PRESSES.						
(a) <i>Cotton Mills.</i>						
123	9th Oct. 1863	Ghosory Cotton Mills Co., Ltd.	Manufacturing cotton twist and cloth, &c.	15,00,000	15,00,000	No. 104, Clive Street, Calcutta.



Number on the register.	Date of registration.	Classification and name of company.	Objects of company.	Nominal capital.	Paid-up capital.	Situation of registered office.
		<b>III.—MILLS AND PRESSES— concl.</b>		<b>Rs.</b>	<b>Rs.</b>	
		<b>(a) Cotton Mills—concl.</b>				
214	7th Aug. 1872	Bowman Cotton Mills Co., Ltd.*	Spinning and weaving cotton.	18,00,000	18,00,000	No. 5, Mission Row, Calcutta.
707	18th Dec. 1871	Dunbar Cotton Mill, Ltd. ...	Ditto ditto, &c.	14,00,000	11,09,500	No. 4, Fairlie Place, Calcutta.
354	19th April 1877	Empress of India Cotton Mills Co., Ltd.	Manufacturing cotton.	8,75,000	8,75,000	No. 55, Canning Street, Calcutta.
566	5th Jan. 1889	Calcutta Cotton Mills Co., Ltd.	Spinning cotton, &c.	5,00,000	4,91,500	No. 57, Cotton Street, Calcutta.
600	18th April 1890	Bengal Spinning and Weaving Co., Ltd.	Spinning and weaving cotton, &c.	10,00,000	62,490	No. 2, Amratala Street, Calcutta.
				70,75,000	58,38,490	
		<b>(b) Jute Mills.</b>				
259	21st April 1873	Budge-Budge Jute Mills Co., Ltd.	Manufacturing jute, hemp, &c.	18,00,000	14,40,000	No. 7, Clive Row, Calcutta.
331	12th „ 1876	Gauripur Co., Ltd. ...	Manufacturing gunny bags.	12,00,000	12,00,000	No. 5, Lyon's Range, Calcutta.
361	28th Sept. 1877	Kamarhatti Co., Ltd. ...	Manufacturing and weaving jute, &c.	8,00,000	4,00,000	No. 4, Clive Row, Calcutta.
405	5th Oct. 1890	Union Jute Co., Ltd. ...	Ditto ditto	12,00,000	9,00,000	No. 39, Strand Road, Calcutta.
461	30th Dec. 1882	Kanknarrah Co., Ltd. ...	Ditto ditto	14,00,000	8,20,000	No. 4, Clive Row, Calcutta.
585	28th Nov. 1889	Sibpur Jute Manufacturing Co., Ltd.	Spinning and weaving jute, &c.	10,00,000	10,00,000	No. 19, Radha Bazar, Street, Calcutta.
619	8th Aug. 1890	Central Jute Mills Co., Ltd. ...	Ditto ditto	7,00,000	6,99,250	No. 7, Clive Row, Calcutta.
625	18th Sept. „	Howrah Mills Co., Ltd. ...	Ditto ditto	26,25,000	26,25,000	Nos. 2 & 3, Clive Row, Calcutta.
627	24th „ „	Fort Gloster Jute Manufacturing Co., Ltd.	Ditto ditto	14,00,000	14,00,000	No. 5, Mission Row, Calcutta.
718	16th March 1892	Hooghly Mills Co., Ltd. ...	Ditto ditto	37,80,000	13,59,600	No. 5-8, Clive Street, Calcutta.
725	1st Aug. „	Soorah Jute Mills Co., Ltd. ...	Ditto ditto	7,00,000	.....	No. 14-2, Clive Row, Calcutta.
				1,66,05,000	1,18,49,850	
		<b>(c) Mills for Cotton, Jute, Wool, Silk, Hemp, &amp;c.</b>				
415	20th June 1881	Bengal Silk Co., Ltd. ...	Spinning and weaving silk.	3,50,000	3,50,000	No. 25, Mangoe Lane, Calcutta.
711	25th Jan. 1893	Oriental Hosiery Manufacturing Co., Ltd.	Manufacturing thread from cotton, wool or silk, and other knitted articles.	2,00,000	.....	No. 5, Garstin's Place, Calcutta.
				5,50,000	3,50,000	
		<b>(d) Cotton and Jute Serees and Presses.</b>				
213	16th Sept. 1867	Nasmyth's Patent Press Co., Ltd.	Pressing cotton, jute &c.	4,00,000	4,00,000	No. 10, Clive Row, Calcutta.
257	10th April 1873	Calcutta Hydraulic Press Co., Ltd.	Pressing and screwing cotton, jute and jute cuttings.	1,70,000	1,70,000	No. 7, Clive Row, Calcutta.
280	25th Feb. 1874	Watson's Patent Press Co., Ltd.	Pressing and softening jute, jute cuttings, &c.	3,00,000	3,00,000	No. 100, Clive Street, Calcutta.
282	23rd April „	Ramkistopore Press Co., Ltd.	Pressing and screwing cotton, jute, &c.	1,30,000	1,30,000	No. 14, Old Court House Lane, Calcutta.
287	13th July „	Riverside Press Co. (Watson's Patent) Ltd.	Ditto ditto	3,00,000	2,99,800	No. 1, Lal Bazar, Calcutta.
290	24th „ „	Strand Bank Press Co. (Watson's Patent), Ltd.	Pressing jute, hides, &c.	2,50,000	2,50,000	No. 3, Commercial Buildings, Calcutta.
382	17th March 1879	Chitpur Hydraulic Pressing Co., Ltd.	Pressing cotton, jute, and other materials.	4,00,000	4,00,000	No. 14-2, Clive Row, Calcutta.
420	20th Sept. 1881	Canal Press Co., Ltd. ...	Ditto ditto	2,40,000	2,40,000	No. 7, Wellesley Place, Calcutta.
443	25th July 1882	Camperdown Pressing Co., Ltd.	Ditto ditto	5,00,000	4,30,000	Ditto ditto.
480	13th Aug. 1883	India Pressing Co., Ltd. ...	Ditto ditto	1,50,000	1,50,000	No. 3, Pollock Street, Calcutta.
610	18th June 1890	New Agra Pressing Co., Ltd.	Ditto ditto	70,000	56,000	No. 7, Mission Row, Calcutta.
				29,10,000	28,25,800	

Number on the register.	Date of registration.	Classification and name of company.	Objects of company.	Nominal capital.	Paid-up capital.	Situation of registered office.
		III.—MILLS AND PRESSES— <i>concl'd.</i> (c) <i>Other Mills and Presses.</i>		Rs.	Rs.	
182	21st April 1865	Calcutta Central Press Co., Ltd.	Printing, &c. ...	75,000	70,700	No. 5, Council House Street, Calcutta.
444	28th July 1882	Titaghur Paper Mills Co., Ltd.	Manufacturing paper.	10,00,000	10,00,000	No. 136, Canning Street, Calcutta.
569	23rd Feb. 1889	Dohing Saw Mills Co., Ltd. ...	Saw millers ...	1,00,000	40,700	No. 39, Cotton Street, Calcutta.
583	22nd Oct. „	Sissi Saw Mills and Trading Co., Ltd.	Ditto ...	2,00,000	2,00,000	Dobrughur, Assam.
587	18th Dec. „	Calcutta Flour Mills Co., Ltd.	Milling and preparing flour.	1,50,000	1,50,000	No. 31, Dalhousie Square South, Calcutta.
590	28th Jan. 1890	Bengal Paper Mill Co., Ltd.	Manufacturing paper.	8,00,000	6,96,250	No. 103, Chye Street, Calcutta.
709	9th Dec. 1891	Dacca Steam Mill Co., Ltd. ...	Manufacturing oil, &c.	30,000	....	.....
717	10th Feb. 1892	Imperial Paper Mills Co., Ltd.	Manufacturing paper.	12,00,000	3,00,250	No. 4, Clive Row, Calcutta.
727	5th Aug. „	Berhampore Shambhu Mill Co., Ltd.	Manufacturing oil, soorky and flour.	50,000	.....	Doyanagore, Berhampore, Murshidabad.
733	22nd Oct. 1892	Cachar Saw Mill and Trading Co., Ltd.	Saw and other mills for manufacturing oil, flour, &c.	50,000	.....	.....
744	10th March 1893	Calcutta Roller Flour Mills Co., Ltd.	Manufacturing flour, oil, &c.	1,50,000	.....	.....
				38,05,000	24,57,900	
				3,09,45,000	2,33,22,049	
		IV.—TEA AND OTHER PLANTING COMPANIES.				
		(a) <i>Tea.</i>				
39	23rd Nov. 1859	Bengal Tea Co., Ltd. ...	Cultivation of tea	10,00,000	9,48,520	No. 4, Clive Row, Calcutta.
40	21st Feb. 1860	Balasun Tea Co., Ltd. ...	Ditto ditto ...	2,00,000	2,00,000	No. 80, Dalhousie Square South, Calcutta.
63	7th Aug. 1861	East India Tea Co., Ltd. ...	Ditto ditto ..	10,00,000	10,00,000	No. 4, Mangoe Lane, Calcutta.
68	18th Dec. „	Sylhet Tea Co., Ltd. .	Ditto ditto ...	1,50,000	1,49,633	Bustee, Gorakh pur.
78	13th May 1862	Ramghur Co., Ltd. ..	Ditto ditto ...	10,00,000	4,50,000	No. 16, Strand Road, Calcutta.
81	20th Nov. „	Soom Tea Co., Ltd. ...	Ditto ditto ...	3,00,000	3,00,000	No. 4, Mangoe Lane, Calcutta.
86	9th Mar. 1863	Punkabaree Tea Co., Ltd. ...	Ditto ditto ...	2,50,000	2,18,342	No. 30, Dalhousie Square South, Calcutta.
89	31st „ „	Dehra Doon Tea Co., Ltd. ...	Ditto ditto ..	20,00,000	8,78,000	Dehra Doon.
100	2nd May „	Central Cachar Tea Co., Ltd.	Ditto ditto ...	10,00,000	10,00,000	No. 3, Mangoe Lane, Calcutta.
103	6th „ „	Bishnauth Tea Co., Ltd. ...	Ditto ditto ...	11,00,000	8,25,000	No. 4, Mangoe Lane, Calcutta.
111	15th July „	Eastern Cachar Tea Co., Ltd.	Ditto ditto	7,00,000	7,00,000	No. 14, Old Court House Street, Calcutta.
137	12th Dec. „	Kurseong and Darjeeling Tea Co., Ltd.	Ditto ditto ...	8,00,000	6,54,300	No. 3, Mangoe Lane, Calcutta.
139	4th Jan. 1864	Durrung Tea Co., Ltd. ...	Ditto ditto ...	5,00,000	4,65,000	No. 4, Fairlie Place, Calcutta.
144	20th Feb. „	Tukvar Co., Ltd. ...	Ditto ditto ..	12,00,000	7,34,300	No. 4, Mangoe Lane, Calcutta.
207	24th Jan. 1867	Kuttal Tea Co., Ltd. ...	Ditto ditto ...	1,00,000	1,00,000	No. 31, Dalhousie Square South, Calcutta.
212	8th Aug. „	Chandypore Tea Co., Ltd. ..	Ditto ditto ...	2,50,000	2,50,000	No. 2, Commercial Buildings, Calcutta.
218	15th „ 1868	New Mutual Tea Co., Ltd. .	Cultivation of tea &c.	1,20,000	1,17,750	No. 4, Clive Row, Calcutta.
220	19th Jan. 1869	Arcuttipore Tea Co., Ltd. .	Manufacturing tea	3,00,000	3,00,000	No. 7, Church Lane, Calcutta.
227	30th May 1871	Cutlacherra Co., Ltd.	Ditto ditto ..	2,70,000	2,50,000	No. 12, Mission Row, Calcutta.
233	15th Nov. „	Singell Tea Co., Ltd. ..	Ditto ditto ..	6,25,000	6,25,000	No. 38, Strand Road, Calcutta.
234	4th Dec. „	Indian Terai Tea Co., Ltd. .	Ditto ditto ...	1,50,000	1,50,000	No. 4, Mangoe Lane, Calcutta.
237	23rd Mar. 1872	Hoolungoorree Tea Co., Ltd.	Ditto ditto ..	4,00,000	4,00,000	No. 7, Clive Row, Calcutta.
238	4th April „	Central Terai Tea Co., Ltd.	Ditto ditto ...	4,00,000	4,00,000	No. 30, Dalhousie Square South, Calcutta.
242	15th July „	Dowai and Parbuttiiah Tea Co., Ltd.	Ditto ditto ..	1,80,000	1,80,000	No. 100, Clive Street, Calcutta.
251	27th Feb. 1873	Holta Tea Co., Ltd. ..	Ditto ditto ...	3,50,000	3,50,000	No. 5, New China Bazar Street, Calcutta.

Number of the register.	Date of registration.	Classification and name of company.	Objects of company.	Nominal capital.	Paid-up capital.	Situation of registered office.
		IV.—TEA AND OTHER PLANTING COMPANIES— <i>contd.</i>		Rs.	Rs.	
		(a) <i>Tea</i> — <i>contd.</i>				
265	23rd July 1873	Kalacherra Tea Co., Ltd. ...	Manufacturing tea	2,75,000	2,75,000	No. 14, Old Court House Street, Calcutta.
271	26th Nov. "	Singbulli and Murmah Tea Co., Ltd.	Ditto ditto ...	4,00,000	3,00,000	No. 30, Dalhousie Square South, Calcutta.
276	31st Dec. "	Puttareah Tea Co., Ltd. ...	Cultivation of tea	2,00,000	2,00,000	No. 1-2, Clive Ghat Street, Calcutta.
278	10th Jan. 1874	Springside Tea Co., Ltd. ...	Ditto ditto ...	1,68,000	1,68,000	No. 4, Clive Row, Calcutta.
281	5th Mar. "	Mothola Co., Ltd. ...	Ditto ditto ...	1,50,000	1,38,000	No. 1, Council House Street, Calcutta.
292	7th Aug. "	Joonktolla Tea Co., Ltd. ...	Ditto ditto ...	80,000	80,000	No. 1, Council House Street, Calcutta.
293	1st Sept. "	Burkholia Tea Co., Ltd. ...	Ditto ditto ...	2,70,000	2,70,000	No. 5-8, Clive Street, Calcutta.
294	15th " "	Tingling Tea Co., Ltd.	Ditto ditto ...	1,50,000	1,50,000	No. 30, Dalhousie Square South, Calcutta.
300	9th Oct. "	Phoenix Tea Co. (of Cachar), Ltd.	Ditto ditto ...	6,25,000	5,35,000	No. 5, Lyon's Range, Calcutta.
306	5th Dec. "	Lackatoorah Tea Co., Ltd. ...	Ditto ditto ...	2,25,000	2,25,000	No. 7, Church Lane, Calcutta.
311	26th Feb. 1875	Second Mutual Tea Co., Ltd.	Ditto ditto ...	2,35,500	2,03,000	No. 4, Clive Row, Calcutta.
312	6th Mar. "	Mun Tea Co., Ltd. ...	Ditto ditto ...	1,60,000	1,59,000	No. 4, Mangoe Lane, Calcutta.
313	20th " "	Geille Tea Co., Ltd. ...	Ditto ditto ...	5,00,000	4,00,000	No. 30, Dalhousie Square South, Calcutta.
314	25th " "	Hoolmaroe Tea Co., Ltd.	Ditto ditto ...	1,20,000	1,20,000	No. 4, Mangoe Lane, Calcutta.
316	1st May "	Sapakati Tea Co., Ltd. ...	Manufacturing tea	88,000	88,000	No. 5, Lyon's Range, Calcutta.
317	5th " "	Rajabaree Tea Co., Ltd. ...	Ditto ditto ...	2,00,000	2,00,000	No. 4, Mangoe Lane, Calcutta.
321*	21st June "	Grob Tea Co., Ltd. ...	Ditto ditto ...	6,00,000	5,00,000	No. 14, Old Court House Street, Calcutta.
330	25th Jan. 1876	North-Western Cachar Tea Co., Ltd.	Cultivation of tea	2,76,000	2,76,000	No. 14, Clive Row, Calcutta.
331	21st Feb. "	Runglee Rungliot Tea Co., Ltd.	Ditto ditto ...	1,40,000	1,40,000	No. 6, Commercial Buildings, Calcutta.
341	25th July "	Amluckie Tea Co., Ltd.	Cultivation and manufacture of tea.	4,46,500	4,45,700	No. 12, Mission Row, Calcutta.
346	31st Aug. "	Cachar Native Jointstock Co., Ltd.	Cultivation of tea ...	1,00,000	53,675	Silchar, Cachar.
347	20th Nov. "	Teesta Valley Tea Co., Ltd.	Ditto ditto ...	3,50,000	3,20,000	No. 30, Dalhousie Square South, Calcutta.
349	5th Jan. 1877	Dehing Co., Ltd. ...	Cultivation and manufacture of tea	10,00,000	9,00,000	No. 1, Council House Street, Calcutta.
356	2nd May "	Good Hope Tea Co., Ltd.	Cultivation of tea ...	1,15,000	1,00,000	No. 4, Clive Row, Calcutta.
359	16th July "	Hotewar Tea Co., Ltd.	Ditto ditto ...	56,000	56,000	Dorando in Chota Nagpur.
364	10th Jan. 1878	Singtom Tea Co., Ltd.	Cultivation and manufacture of tea.	1,60,000	1,60,000	No. 7, Clive Row, Calcutta.
365	19th Mar. "	Bahadurpore Tea Co., Ltd.	Ditto ditto ...	20,000	17,639	Silchar, Cachar.
368	12th July "	Hindu Tea Co., Ltd.	Cultivation of tea ...	35,000	24,500	Darjeeling.
373	27th Sept. "	Loobah Tea Co., Ltd.	Ditto ditto ...	7,00,000	5,45,300	No. 14, Old Court House Street, Calcutta.
377	16th Jan. 1879	Longview Tea Co., Ltd. ...	Ditto ditto ...	3,44,000	3,44,000	No. 4, Mangoe Lane, Calcutta.
378	16th " "	Darjeeling Tea and Cinchona Association, Ltd.	Cultivation of tea and cinchona.	2,00,000	2,00,000	No. 4, Fairlie Place, Calcutta.
384	25th Mar. "	Kettola Tea Co., Ltd.	Cultivation of tea ...	1,50,000	1,50,000	No. 4, Mangoe Lane, Calcutta.
390	29th May "	Jalpaiguri Tea Co., Ltd.	Ditto ditto ...	50,000	50,000	Jalpaiguri.
392	8th Aug. "	Washabarie Tea Co., Ltd.	Ditto ditto ...	1,50,000	1,50,000	No. 14, Old Court House Street, Calcutta.
397	5th Feb. 1880	Karnafuli Association, Ltd.	Ditto ditto ...	3,60,000	3,00,000	No. 4, Fairlie Place, Calcutta.
398	14th " "	Nabartoli Tea Co., Ltd.	Ditto ditto ...	1,60,000	1,60,000	No. 4, Fairlie Place, Calcutta.
410	7th " 1881	Ringtong Tea Co., Ltd. ...	Ditto ditto ...	3,00,000	2,00,000	No. 31, Dalhousie Square South, Calcutta.
413	30th Mar. "	Sungma Tea Co., Ltd.	Ditto ditto ...	1,30,000	1,17,000	No. 1, Mangoe Lane, Calcutta.
414	12th April "	Khebong Tea Co., Ltd. ...	Ditto ditto ...	3,25,000	3,25,000	No. 5, New China Bazar Street, Calcutta.

Number on the register.	Date of registration.	Classification and name of company.	Objects of company.	Nominal capital.	Paid-up capital.	Situation of registered office.
		IV.—TEA AND OTHER PLANTING COMPANIES— <i>contd.</i>		Rs.	Rs.	
		(a) <i>Tea</i> — <i>contd.</i>				
427	15th Feb. 1882	Rungamtee Tea Co., Ltd.	Cultivation of tea ..	3,50,000	3,50,000	No. 11, Clive Street, Calcutta.
428	24th „ „	Lower Darjeeling Tea Co., Ltd.	Ditto ditto ..	1,10,000	1,10,000	No. 5-8, Clive Street, Calcutta.
431	14th Mar. „	Baintbarie Tea Co., Ltd.	Ditto ditto ..	1,60,000	1,60,000	No. 7, Church Lane, Calcutta.
432	21st „ „	Tingri Tea Co., Ltd.	Ditto ditto ..	5,25,000	5,23,500	No. 4, Mangoe Lane, Calcutta.
437	25th April „	Ellenbarie Tea Co., Ltd.	Cultivation and manufacture of tea.	1,50,000	1,50,000	No. 14, Clive Street, Calcutta.
448	5th Sept. „	Pashok Tea Co., Ltd.	Ditto ditto ..	2,50,000	2,20,000	No. 4, Fairlie Place, Calcutta.
453	28th „ „	Northern Bengal Tea Corporation, Ltd.	Ditto ditto ..	1,00,000	85,100	Jalpaiguri.
458	2nd Dec. „	Gurjang Jhora Tea Co., Ltd.	Ditto ditto ..	50,000	50,000	Ditto.
460	29th „ „	Phoolbarrie Tea Co., Ltd.	Ditto ditto ..	5,12,000	5,12,000	No. 7, Hare Street, Calcutta.
464	17th Feb. 1883	Bugracote Tea Co., Ltd.	„	4,00,000	4,00,000	No. 10, Hare Street, Calcutta.
466	19th „ „	Baintgoorie Tea Co. (Duars), Ltd.	„	1,70,000	1,70,000	Ditto.
468	1st Mar. „	Needem Tea Co., Ltd.	„	3,00,000	3,00,000	No. 14, Old Court House Street, Calcutta.
474	11th July „	Bor Pukhuri Tea Co., Ltd.	Cultivation of tea ..	1,50,000	1,50,000	No. 4, Mangoe Lane, Calcutta.
475	12th „ „	Gyabarie Tea Co., Ltd.	Ditto ditto ..	2,00,000	2,00,000	No. 30, Dalhousie Square, South, Calcutta.
476	12th „ „	Second Falloohi Tea Co., Ltd.	Ditto ditto ..	2,00,000	2,00,000	Ditto.
479	9th Aug. „	Mohurpung Tea Co., Ltd.	Ditto ditto ..	1,60,000	1,60,000	No. 4, Clive Row, Calcutta.
486	28th Nov. „	Bargong Tea Co., Ltd.	Ditto ditto ..	1,50,000	1,45,500	No. 4, Mangoe Lane, Calcutta.
494	27th Mar. 1884	Matelli Tea Co., Ltd.	Ditto ditto ..	2,00,000	2,00,000	No. 4, Clive Row, Calcutta.
498	28th May „	Kaliti Tea Co., Ltd.	Ditto ditto ..	80,000	80,000	No. 14, Old Court House Street, Calcutta.
499	18th July „	Selim Tea Co., Ltd.	Ditto ditto ..	15,00,000	*9,50,500	No. 30, Dalhousie Square, South, Calcutta.
500	19th „ „	Tezporo and Gogra Tea Co., Ltd.	Ditto ditto ..	6,50,000	5,98,800	No. 4, Clive Row, Calcutta.
501	14th Aug. „	Iringmarrah Tea Co., Ltd.	Ditto ditto ..	1,60,000	1,60,000	No. 100, Clive Street, Calcutta.
505	3rd Jan. 1885	Manabbarie Tea Co., Ltd.	Ditto ditto ..	2,00,000	2,00,000	No. 14, Clive Street, Calcutta.
507	10th Feb. „	Nogadhooho Tea Co., Ltd.	Ditto ditto ..	1,76,000	1,76,000	No. 100, Clive Street, Calcutta.
508	23rd „ „	Hopetown Tea Co., Ltd.	Ditto ditto ..	1,00,000	1,00,000	No. 30, Dalhousie Square, South, Calcutta.
510	21st Mar „	Hope Tea Co., Ltd.	Ditto ditto ..	3,60,000	3,60,000	No. 14, Clive Street, Calcutta.
513	16th May 1885	Arya Tea Co., Ltd.	Ditto ditto ..	36,575	36,160	Darjeeling.
514	28th „ „	New Cinnatollah Tea Co., Ltd.	Ditto ditto ..	10,000	10,000	No. 3, Mangoe Lane, Calcutta.
516	22nd Dec. „	Mandakata Tea Co., Ltd.	Ditto ditto ..	2,00,000	2,00,000	Ditto.
517	22nd „ „	Chineoorie Tea Co., Ltd.	Ditto ditto ..	2,00,000	2,00,000	Ditto.
518	29th „ „	Killeott Tea Co., Ltd.	Ditto ditto ..	2,00,000	2,00,000	No. 7, Hare Street, Calcutta.
519	5th Jan. 1886	Chulsa Tea Co. (Duars), Ltd.	Ditto ditto ..	4,00,000	4,00,000	No. 10, Hare Street, Calcutta.
520	5th „ „	Zarantee Tea Co. (Duars), Ltd.	Ditto ditto ..	1,60,000	1,60,000	Ditto.
522	16th „ „	Kallmugger and Khoreel Tea Co., Ltd.	Ditto ditto ..	3,00,000	3,00,000	No. 3, Mangoe Lane, Calcutta.
524	20th Feb. „	Bannockburn Tea Co., Ltd.	Cultivate tea, &c. ..	2,00,000	2,00,000	No. 5, Lyon's Range, Calcutta.
526	18th March „	Jaipur Tea Estates, Ltd.	Ditto ditto ..	2,00,000	2,00,000	No. 103, Clive Street, Calcutta.
530	26th June „	Shakomato Tea Co., Ltd.	Ditto ditto ..	2,50,000	2,50,000	No. 4, Mangoe Lane, Calcutta.
531	8th July „	Single Tea Co., Ltd.	Ditto ditto ..	12,00,000	12,00,000	No. 5-8, Clive Street, Calcutta.
533	29th „ „	Chalouni Tea Co., Ltd.	Ditto ditto ..	2,00,000	2,00,000	No. 14, Clive Street, Calcutta.
550	25th Feb. 1888	Jetinga Valley Tea Co., Ltd.	Cultivate tea ..	3,00,000	3,00,000	No. 3, Mission Row, Calcutta.
555	5th June „	Okayti Tea Co., Ltd.	Ditto, &c. ..	2,00,000	1,00,000	No. 30, Dalhousie Square, South, Calcutta.
558	17th July „	New Glencoe Tea Co., Ltd.	Cultivate tea ..	2,00,000	2,00,000	No. 31, Dalhousie Square, South, Calcutta.
559	2nd Aug. „	Carron Tea Co. „	Ditto ..	1,50,000	1,50,000	No. 14, Clive Street, Calcutta.
560	23rd „ „	Nagaissuree Tea Co., Ltd.	Ditto ..	2,40,000	2,40,000	Ditto.

\* By oversight shown as 14,50,500 in 1891-92.

Number on the register.	Date of registration.	Classification and name of company.	Objects of company.	Nominal capital.	Paid-up capital.	Situation of registered office.
		<b>IV. TEA AND OTHER PLANTING COMPANIES—concl.</b>		<b>Rs.</b>	<b>Rs.</b>	
		(a) Tea—concl.				
562	27th Sept. 1888	Gungaram Tea Co., Ltd. ...	Cultivate tea, &c. ...	1,00,000	1,00,000	No. 14, Clive Street, Calcutta.
563	7th Nov. "	Kumai Tea Co., Ltd. ...	Ditto ...	2,00,000	1,96,000	No. 14, Old Court House Street, Calcutta.
572	27th March 1889	Huldibares Tea Association, Ltd. ...	Cultivate tea ...	3,00,000	1,56,813	No. 30, Dalhousie Square, Calcutta.
573	27th "	Sath Bhaia Tea Co., Ltd. ...	Ditto ...	1,00,000	93,750	Ditto.
576	24th June "	New Chumta Tea Co., Ltd. ...	Ditto ...	1,00,000	1,00,000	No. 30, Dalhousie Square South, Calcutta.
579	6th Aug. "	Hantapara Tea Co., Ltd. ...	Cultivate tea, &c. ...	2,00,000	*81,500	No. 4, Fairlie Place, Calcutta.
580	15th "	Anjuman Tea Co., Ltd. ...	Cultivate tea ...	2,25,000	90,000	Jalpaiguri.
582	25th Sept. "	Chengmari Tea Co., Ltd. ...	Cultivate tea, &c. ...	5,00,000	3,37,382	No. 14, Old Court House Street, Calcutta.
595	25th Feb. 1890	Neguli Tea Co., Ltd. ...	Cultivate tea ...	1,00,000	42,500	No. 30, Dalhousie Square South, Calcutta.
596	21st March "	Kumai Tea Association, Ltd.	Ditto ...	1,60,000	1,60,000	No. 14, Old Court House Street, Calcutta.
601	3rd April "	Kisna Tea Co., Ltd. ...	Ditto ...	8,00,000	3,00,000	No. 8, Chive Street, Calcutta.
603	3rd May "	Jaigon Tea Co., Ltd. ...	Ditto ...	2,00,000	2,00,000	No. 4, Fairlie Place, Calcutta.
604	14th "	Gairkhata Tea Co., Ltd. ...	Ditto ...	2,50,000	1,60,000	No. 7, Church Lane, Calcutta.
609	9th June "	Jhirighat Native Tea Co. Ltd.	Ditto ...	20,000	18,000	Silchar, Cachar.
610	21st "	Tycoon Tea Co., Ltd. ...	Ditto ...	1,00,000	1,00,000	No. 12, Mission Row, Calcutta.
615	19th July "	Lohagur Tea Co., Ltd. ...	Ditto ...	2,10,000	2,10,000	No. 14, Old Court House Street, Calcutta.
628	25th Sept. "	Altadanga Tea Co., Ltd. ...	Ditto ...	30,000	23,455	Jalpaiguri.
633	30th "	Nadia Tea Co., Ltd. ...	Ditto ...	60,000	22,513	Amra, Nadia.
647	3rd Nov. 1891	Moortee Tea Co., Ltd. ...	Ditto ...	2,00,000	1,05,000	No. 4, Clive Row, Calcutta.
675	9th March "	Belgachi Tea Co., Ltd. ...	Ditto ...	1,50,000	...	No. 30, Dalhousie Square, Calcutta.
678	23rd "	Dhupguri Tea Co. Ltd. ...	Ditto ...	1,30,000	82,800	No. 3, Mission Row, Calcutta.
683	10th April "	Atal Tea Co., Ltd. ...	Ditto ...	1,50,000	1,50,000	No. 31, Dalhousie Square South, Calcutta.
686	22nd "	Jahoka Tea Co., Ltd. ...	Cultivate tea, &c. ...	5,00,000	4,50,000	No. 5-8, Clive Street, Calcutta.
687	5th May "	Rahargoomeah Tea Association, Ltd.	Ditto ...	2,00,000	1,99,245	No. 4, Fairlie Place, Calcutta.
693	8th June "	Chamurchi Tea Co., Ltd. ...	Ditto ...	75,000	38,000	Jalpaiguri.
701	24th Sept. "	Killing Valley Tea Association, Ltd.	Ditto ...	80,000	...	No. 5, Lyon's Range, Calcutta.
706	23rd Oct. "	Nurbong Tea Co., Ltd. ...	Ditto ...	1,80,000	1,80,000	No. 31, Dalhousie Square South, Calcutta.
713	31st Dec. "	Glenburn Tea Co., Ltd. ...	Ditto ...	1,70,000	...	No. 7, Clive Row, Calcutta.
715	16th Jan. 1892	Monabari Tea Co., Ltd. ...	Ditto ...	1,60,000	48,000	No. 31, Dalhousie Square South, Calcutta.
739	29th Dec. "	Central Duars Tea Co., Ltd.	Ditto ...	4,00,000	...	No. 31, Dalhousie Square, Calcutta.
742	4th Feb. "	Tilkah Tea Co., Ltd. ...	Cultivate tea ...	40,000	...	No. 1A, Lal Bazar Street, Calcutta.
				4,24,58,575	3,55,94,477	
		(b) Coffee and Cinchona.				
		(c) Others.				
322	29th June 1875	Sylhet Cultivating Co., Ltd. ...	Agriculture ...	20,000	17,275	Panchas, Sylhet.
630	30th Sept. 1890	Patkoom Indigo and Trading Co., Ltd.	Planting indigo ...	2,25,000	2,25,000	No. 4, Clive Row, Calcutta.
637	6th Oct. "	Rannugger Indigo Concern, Ltd.	Ditto ...	1,40,000	1,40,000	No. 22, Strand Road Calcutta.
				3,85,000	3,82,275	
			Total of Planting Companies.	4,28,43,575	3,59,76,752	
		<b>V.—MINING AND QUARRYING.</b>				
		(Coal.)				
20	24th July 1858	Bengal Coal Co., Ltd. ...	Mining coal ...	24,00,000	24,00,000	No. 2, Garstin's Place, Calcutta.
112	1st Aug. 1863	Equitable Coal Co., Ltd. ...	Ditto ...	8,00,000	8,00,000	No. 1-2, Chive Ghat Street, Calcutta.

\* By oversight shown as 2,00,000 last year.

Number on the register.	Date of Registration.	Classification and name of company.	Objects of company.	Nominal capital.	Paid-up capital.	Situation of registered office.
		V.—MINING AND QUARRYING —concl'd. (Coal)—concl'd.		Rs.	Rs.	
255	8th April 1873	Raneogunge Coal Association, Ltd.	Mining coal ...	9,00,000	8,25,000	No. 4, Fairlie Place, Calcutta.
262	16th May "	New Birbhum Coal Co., Ltd.	Ditto ...	7,20,000	7,20,000	No. 163, Clive Street, Calcutta.
320	19th June 1875	Burrakur Coal Co., Ltd. ...	Ditto ...	3,00,000	3,00,000	No. 39, Strand Road, Calcutta.
592	8th Feb. 1890	Damuda Coal Co., Ltd. ...	Ditto ...	4,00,000	4,00,000	No. 1, Garstin's Place, Calcutta.
660	18th Dec. "	Bengal Nagpur Coal Co., Ltd.	Ditto ...	2,25,000	1,96,900	No. 21, Canning Street, Calcutta.
670	10th Feb. 1891	Borrea Coal Co., Ltd. ...	Ditto ...	5,00,000	4,28,800	No. 136, Canning Street, Calcutta.
679	26th March "	Manbhum Coal Co., Ltd. ...	Ditto ...	1,00,000	40,000	No. 38, Strand Road, Calcutta.
730	2nd Sept. 1892	South Burrakur Coal Co., Ltd.	Ditto ...	5,00,000	.....	No. 5, Fairlie Place, Calcutta.
731	17th " "	Buraboni Coal Co., Ltd. ...	Ditto ...	2,00,000	.....	No. 18, Swallow Lane, Calcutta.
735	6th Dec. "	Burma Coal Co., Ltd. ...	Ditto ...	7,50,000	.....	No. 12, Mission Row, Calcutta.
				77,95,000	61,10,700	
		Others.				
339	30th June 1876	Rajmahal Stone Co., Ltd. ...	Quarrying stone ...	2,50,000	2,50,000	No. 13, Chowringhee Road, Calcutta.
381	15th Feb. 1879	Bengal Stone Co., Ltd. ...	Ditto ...	80,000	80,000	No. 100, Clive Street, Calcutta.
477	14th July 1883	Arakan Petroleum Oil Co., Ltd.	Refining and manufacturing petroleum.	4,00,000	3,80,650	No. 5, Mission Row, Calcutta.
614	27th June 1890	Kharsowan Gold Syndicate, Ltd.	Prospecting and mining.	2,00,000	1,65,000	No. 4, Fairlie Place, Calcutta.
618	8th Aug. "	Western Bengal Prospecting Syndicate, Ltd.	Ditto ditto ...	5,50,000	5,13,000	No. 7, Church Lane, Calcutta.
621	30th " "	Bengal Gold and Silver Mining Co., Ltd.	Ditto ditto ...	12,00,000	12,00,000	Ditto.
623	4th Sept. "	Sonapet Proprietary Gold Mining Co., Ltd.	Ditto ditto ...	17,24,000	17,24,000	No. 136, Canning Street, Calcutta.
629	27th " "	Dumra Gold Prospecting Syndicate, Ltd.	Ditto ditto ...	5,55,500	4,04,000	No. 5, Lyon's Range, Calcutta.
631	30th " "	Patkoom Prospecting Syndicate, Ltd.	Ditto ditto ..	1,30,000	86,675	No. 4, Clive Row, Calcutta.
634	3rd Oct. "	Eastern Ranchi Gold Prospecting Syndicate, Ltd.	Ditto ditto ...	2,00,000	.....	No. 19, Radha Bazar, Calcutta.
639	6th " "	Western Patkoom Gold Prospecting Syndicate, Ltd.	Ditto ditto ...	12,12,000	12,12,000	No. 5, Lyon's Range, Calcutta.
643	16th " "	Sonaguri Gold Prospecting Syndicate, Ltd.	Ditto ditto ...	1,10,000	.....	No. 135, Canning Street, Calcutta.
650	5th Nov. "	Excelsior Land and Prospecting Syndicate, Ltd.	Ditto ditto ...	1,50,000	.....	No. 60, Cross Street, Calcutta.
657	29th " "	Palguni Gold Prospecting Syndicate, Ltd.	Ditto ditto ...	3,00,000	3,00,000	No. 5-8, Clive Street, Calcutta.
658	11th Dec. "	Mount Ophir Gold Prospecting Syndicate, Ltd.	Ditto ditto ...	1,50,000	.....	No. 3, Commercial Buildings, Calcutta.
664	21st Jan. 1891	Cossya River Gold Prospecting Syndicate, Ltd.	Ditto ditto ...	1,00,000	.. ..	No. 22, Canning Street, Calcutta.
665	22nd " "	Sonopur Syndicate, Ltd. ..	Ditto ditto ...	60,000	47,438	No. 14, Old Court House Street, Calcutta.
666(a)	24th " "	Juggetpore Syndicate, Ltd. ...	Ditto ditto ...	1,00,000	34,650	Ditto.
667	28th " "	Borobhoom Co., Ltd. .	Ditto ditto ...	32,000	32,000	No. 28, Strand, Calcutta.
668	6th Feb. "	Boru Prospecting Syndicate, Ltd.	Ditto ditto ...	1,00,000	.....	No. 6, New China Bazar, Calcutta.
669	9th " "	Burma Prospecting Syndicate, Ltd.	Ditto ditto ...	50,000	.....	No. 3, Wellesley Place, Calcutta.
672	11th " "	Dhatu Prospecting and Mining Syndicate, Ltd.	Ditto ditto ...	1,00,000	.....	No. 73, New China Bazar, Calcutta.
673	24th " "	Sonapanahar Gold Prospecting and Mining Co.,* Ltd.	Ditto ditto ...	0,00,000	4,73,410	No. 5, New China Bazar, Calcutta.
676	10th March "	Pachote Trading Corporation, Ltd.	Ditto ditto ...	5,00,000	4,00,000	Ditto.
677	21st " "	Rajdoha Mining Co., Ltd. ..	Ditto ditto ...	25,00,000	7,26,550	No. 8, Clive Street, Calcutta.
680	30th " "	Sarakela Mining Co., Ltd. ...	Ditto ditto ...	5,00,000	.....	No. 5, New China Bazar Street, Calcutta.
681	31st " "	Metala Prospecting Syndicate, Ltd.	Ditto ditto ...	2,20,000	.. ..	No. 2, Radha Bazar Lane, Calcutta.
682	6th April "	Singbhum Mining and Prospecting Syndicate, Ltd.	Ditto ditto ...	1,00,000	.....	No. 14, Old Court House Street, Calcutta.
689	13th May "	Jherriah-Katras Syndicate, Ltd.	Ditto ditto ...	3,00,000	81,150	No. 38, Strand Calcutta.
699	13th Aug. "	Kallyanpur-Bohar Gold Mining Co., Ltd.	Ditto ditto ...	9,00,000	.. ..	No. 6, New China Bazar, Calcutta.
				1,33,93,500	81,10,523	
			Total of Mining & Quarrying Cos.	2,11,88,500	1,42,21,223	

\* By oversight shown as "Syndicate" in 1891-92.

Number on the register.	Date of registration.	Classification and name of company.	Objects of company.	Nominal capital.	Paid-up capital.	Situation of registered office.
		<b>VI.—ICE MANUFACTURING.</b>		<b>Rs.</b>	<b>Rs. *</b>	
367	9th July 1878	Bengal Ice Manufacturing Co., Ltd.	Manufacturing ice ...	5,00,000	4,95,000	No. 103, Clive Street, Calcutta. Jamalpur, E. I. R.
389	28th May 1879	Jamalpur Ice Manufacturing Co., Ltd.	Ditto	10,000	7,120	
481	14th Aug. 1883	Crystal Ice Supply Co., Ltd.	Ditto ...	2,00,000	2,00,000	
656	22nd Nov. 1890	Oriental Ice Manufacturing Co., Ltd.	Ditto ...	1,00,000	44,300	
721	6th April 1892	Dacca Ice Co., Ltd.	Ditto ...	3,000	.....	
			<b>Total of Ice Manufacturing Cos.</b>	<b>8,13,000</b>	<b>7,46,420</b>	
		<b>VII.—SUGAR MANUFACTURING.</b>				
319	11th June 1875	Carew and Co., Ltd. ...	Manufacturing sugar, rum and other articles.	16,00,000	16,00,000	No. 25, Mangoe Lane, Calcutta.
			<b>Total of Sugar Manufacturing Cos.</b>	<b>16,00,000</b>	<b>16,00,000</b>	
		<b>VIII.—BREWERIES.</b>				
		<b>IX.—OTHERS.</b>				
470	14th March 1883	Bengal Telephone Co., Ltd....	Constructing telephone lines.	10,00,000	8,80,000	No. 7, Council House Street, Calcutta.
586	3rd Dec. 1889	Mohes Chunder Land Reclamation and Agricultural Improvement Co., Ltd.	Promoting agricultural improvements, &c.	2,50,000	2,50,000	Nos. 1 & 5, Mohes Chunder Chaudhuri's Lane, Bhawanipur.
593	22nd Feb. 1890	Pioneer Glass Manufacturing Co., Ltd.	Manufacturing glass	3,00,000	1,28,200	No. 3, Commercial Buildings, Calcutta.
635	3rd Oct. "	Bengal Tarpaulin Manufacturing Co., Ltd.	Manufacturing tarpaulins.	50,000	.....	.....
651	6th Nov. "	"Peshwa" Floating Syndicate, Ltd.	To float the wreck steamer <i>Peshwa</i> .	50,000	.....	No. 219, Old China Bazar Street, Calcutta.
651	13th " "	Thompson's Carriage Co., Ltd.	Carriage service in Calcutta.	5,000	.....	No. 7, Government Place North, Calcutta.
676(a)	13th March 1891	Pneumatic Husking (Schumacher's Patent) Syndicate Ltd.	Milling and preparing paddy.	40,000	33,650	No. 3, Commercial Buildings, Calcutta.
676(b)	13th " "	Calcutta Hackney Carriage Co., Ltd.	Carriage service in Calcutta.	1,50,000	.....	No. 10, Clive Street, Calcutta.
685	20th April "	Garden Reach Land Syndicate Co., Ltd.	Traffic in lands and houses in Calcutta and suburbs.	8,00,000	2,52,813	No. 4, Fairlie Place, Calcutta.
700	17th Aug. "	Indian Metals Manufacturing Co., Ltd.	Manufacturing brass, copper, &c.	2,00,000	.....	..
707	27th Oct. "	Thomson's Ink and Chemical Manufacturing Co., Ltd.	Manufacturing and selling ink.	50,000	15,825	No. 69, New China Bazar, Calcutta.
711	11th Dec. "	Family Relief Fund Co., Ltd.	Relieving and maintaining the family of a deceased member.	50,000	6,000	Town Barisal.
712	12th " "	India General Gas Co., Ltd.	Manufacturing gas	4,00,000	.....	Bankipore, Patna.
719	23rd March 1892	Bengal Safety Match Manufacturing Co., Ltd.	Manufacturing safety matches.	40,000	9,299	No. 15, Pollock Street, Calcutta.
722	18th April "	Indian Match Factory, Ltd....	Manufacturing matches.	70,000	.....	No. 66, College Street, Calcutta.
726	2nd Aug. "	Driscoll's Patent Life and Property Saving Apparatus Manufacturing Co., Ltd.	Manufacturing and selling life-buoys, &c.	2,00,000	.....	No. 6, Church Lane, Calcutta.
734	2nd Nov. "	Indian Airating Gas Factories, Ltd.	Manufacturing carbonic acid gas.	2,00,000	...	.....
738	28th Dec. "	"Ruby" Patent Mica Non-conducting Boiler Composition Syndicate, Ltd.	Manufacturing mica engine packing and lubricants.	1,10,000	.....	.....
740	7th Jan. 1893	National Union Fund Co., Ltd.	Provide for payment of a lump sum of money to the heirs of a deceased shareholder.	5,000	.....	No. 4, Nobokt-mar Baha's Lane, Calcutta.
			<b>Total of Other Companies.</b>	<b>89,70,000</b>	<b>15,75,787</b>	

## No. IX.

*List of Companies limited by guarantee at work on the 31st March 1893.*

Number on the register.	Date of registration.	Classification and name of company.	Objects of company.	Number of members.	Situation of registered office.
		<i>Nil.</i>			

## No. X.

*Statement of Fees realised during the year 1892-93.*

NAME OF COMPANY.	Purpose for which fee was paid.	Section of the Act under which realised.	Amount.	Fees realised under Act XXI of 1860.
			Rs. A. P.	Rs. A. P.
Jherria Katras Syndicate, Ltd.	For filing and recording balance sheet	71	5 0 0	
Manbhum Coal Co., Ltd.	Ditto ditto ditto	71	5 0 0	
Arya Tea Co., Ltd.	Ditto ditto ditto	74	5 0 0	
Ditto	Ditto ditto shareholders' list	48	5 0 0	
Chota Nagpur Banking Association, Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Garden Reach Land Syndicate, Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Jaipalguri Tea Co., Ltd.	Ditto ditto ditto	48	5 0 0	
New Mutual Tea Co., Ltd.	Ditto ditto balance sheet	71	5 0 0	
Ditto ditto	Ditto ditto shareholders' list	48	5 0 0	
Second Mutual Tea Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Jetinga Valley Tea Co., Ltd.	Ditto ditto ditto	48	5 0 0	
Durrabhar Co., Ltd.	For recording special resolution	79	5 0 0	
Bengal Safety Match Manufacturing Co., Ltd.	Ditto notice of situation of registered office	61	5 0 0	
Kuttal Tea Co., Ltd.	For filing and recording balance sheet	74	5 0 0	
Ditto	Ditto ditto shareholders' list	48	5 0 0	
Indian Patent Stone Co., Ltd.	Ditto ditto special resolution.	79	5 0 0	
Joonktolee Tea Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list	48	5 0 0	
Phoenix Tea Co. of Cachar, Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list	48	5 0 0	
Deoghur Railway Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list	48	5 0 0	
Dacca Ice Co., Ltd.	Ditto ditto memorandum of association	40	40 0 0	
Ditto	Ditto ditto articles of association	40	5 0 0	
East India Tea Co., Ltd.	Ditto ditto balance sheet	71	5 0 0	
Ditto ditto	Ditto ditto shareholders' list	48	5 0 0	
Northern Bengal Tea Corporation, Ltd.	Ditto ditto balance sheet	71	5 0 0	
Monabarie Tea Co., Ltd.	Ditto ditto shareholders' list.	48	5 0 0	
Bannockburn Tea Co., Ltd.	Ditto ditto balance sheet	71	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Bengal Tea Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Killcott Tea Co., Ltd.	Ditto ditto balance sheet	71	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Phoolbarrie Tea Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list	48	5 0 0	
Sapakati Tea Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto	Ditto ditto shareholders' list	48	5 0 0	
Asanol East Indian Railway Co-operative Society, Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list	48	5 0 0	
Gurjang Jhora Tea Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto proceedings of annual meeting.	74	5 0 0	
Northern Bengal Tea Corporation, Ltd.	Ditto ditto shareholders' list	48	5 0 0	
Kangoon Steam Tramway Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Indian Patent Stone Co., Ltd.	For searching	220(e)	3 0 0	
Ditto	For copying memorandum and articles of association.	220(e)	10 8 0	
Burkhole Tea Co., Ltd.	For filing and recording balance sheet	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Singell Tea Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Singbull and Murmah Tea Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Bishnath Tea Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	



NAME OF COMPANY.	Purpose for which fee was paid.	Section of the Act under which realised.	Amount.	Fees realised under Act XXI of 1880.
			Rs. A. P.	Rs. A. P.
Kettela Tea Co., Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Tingri Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Calcutta Hospital Nurses' Institution	Ditto ditto list of governing body.	...	.....	5 0 0
Indian Patent Stone Co., Ltd. ...	For searching ...	220(e)	1 0 0	
Ditto ditto ...	For certificate of incorporation ...	220(e)	3 0 0	
Okayti Tea Co., Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Reliance Marine Insurance Office Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Bihar Trading Co., Ltd. ...	Ditto ditto special resolution.	79	5 0 0	
Hong-Kong and Shanghai Banking Corporation.	Ditto ditto shareholders' list.	48	5 0 0	
Tyroon Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Gobra Tannery Co., Ltd. ...	For searching ...	220(e)	1 0 0	
Ditto ditto ...	For copying shareholders' list ...	220(e)	0 8 0	
Mufassal Bone-crushing and Manure Co., Ltd.	For searching ...	220(e)	1 0 0	
Calcutta Cotton Mills Co., Ltd. ...	Ditto ...	220(e)	1 0 0	
Khobong Tea Co., Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Rungamattou Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Okayti Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Rungles Rungliot Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Holta Tea Co., Ltd. ...	Ditto ditto ditto ...	48	5 0 0	
Nowdeah Prospecting Syndicate, Ltd.	Ditto ditto notice of removal of registered office.	64	5 0 0	
Mufassal Bone-crushing and Manure Co., Ltd.	For searching ...	220(e)	1 0 0	
Cargo Boat Co., Ltd. ...	For filing and registering balance sheet ...	74	5 0 0	
Gurjang Jhora Tea Co., Ltd. ...	Ditto ditto shareholders' list.	48	5 0 0	
Nowdeah Prospecting Syndicate, Ltd.	For recording special resolutions ...	79	10 0 0	
Goosery Cotton Mills Co., Ltd. ...	Ditto ditto ...	79	5 0 0	
Atal Tea Co., Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Tingling Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Kharsowan Gold Syndicate, Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
R. Scott, Thomson & Co., Ltd. ...	Ditto ditto balance sheet ...	74	10 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Mining and Prospecting Co., Ltd. ...	For searching ...	220(e)	1 0 0	
Grob Tea Co., Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Neodeem Tea Co., Ltd. ...	Ditto ditto ditto ...	74	5 0 0	
Kalacherra Tea Co., Ltd. ...	Ditto ditto ditto ...	74	5 0 0	
Washbarrie Tea Co., Ltd. ...	Ditto ditto ditto ...	74	5 0 0	
Kumlai Tea Association, Ltd. ...	Ditto ditto ditto ...	74	5 0 0	
Loobah Tea Co., Ltd. ...	Ditto ditto ditto ...	74	5 0 0	
Gairkhata Tea Co., Ltd. ...	Ditto ditto ditto ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Ditto ...	Ditto ditto increase of capital.	57	30 0 0	
Second Falloodhi Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Bengal Provincial Railway Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto special resolution.	79	5 0 0	
Ditto ditto ...	Ditto ditto articles of association.	40	5 0 0	
Shakomato Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Jalpaiguri Banking and Trading Corporation, Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Bengal Ice Manufacturing Co., Ltd.	Ditto ditto ditto ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Central Terai Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Mining and Prospecting Co., Ltd. ...	For searching ...	220(e)	2 0 0	
Ditto ditto ...	For copying two certificates of incorporation.	220(e)	6 0 0	
Cutlacherra Co., Ltd. ...	For filing and registering balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Barisal Loan Office Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Union Pressing Co., Ltd. ...	For searching ...	220(e)	1 0 0	
Anluekie Tea Co., Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Bengal Paper Mill Co., Ltd. ...	Ditto ditto special resolution.	79	5 0 0	
Ditto ditto ...	Ditto ditto increase of capital.	57	50 0 0	
Bargong Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Gelbe Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Mining and Prospecting Co., Ltd. ...	For searching ...	220(e)	1 0 0	
Oriental Trading Co., Ltd. ...	For filing and recording situation of registered office.	64	5 0 0	

NAME OF COMPANY.	Purpose for which fee was paid.	Section of the Act under which realised.	Amount.	Fees realised under Act XXI of 1860.
Indian Patent Stone Co., Ltd. ...	For filing and recording special resolution.	79	Rs. A. P. 5 0 0	Rs. A. P.
Bengal Provincial Railway Co., Ltd.	Ditto ditto shareholders' list.	48	5 0 0	
Mining and Prospecting Co., Ltd. ...	For searching ...	220(e)	1 0 0	
Ditto ditto	For copying memoranda and articles of association.	220(e)	11 0 0	
H. Dear & Co., Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Patkoom Prospecting Syndicate, Ltd.	Ditto ditto special resolution.	79	5 0 0	
Ditto ditto	Ditto ditto increase of capital.	57	25 0 0	
Anjuman Tea Co., Ltd. ...	Ditto ditto proceedings of meeting.	74	5 0 0	
Pahargooniah Tea Association, Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Singlo Tea Co., Ltd. ...	Ditto ditto shareholders' list.	48	5 0 0	
Ditto	Ditto ditto balance sheet ...	74	5 0 0	
Lower Darjeeling Tea Co., Ltd.	Ditto ditto ditto ...	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Pahargooniah Tea Association, Ltd.	Ditto ditto ditto ...	48	5 0 0	
Indian Patent Stone Co., Ltd. ...	For searching ...	220(e)	1 0 0	
Ditto ditto	For copying special resolution ...	220(e)	0 4 0	
Raniganj Coal Association, Ltd.	For searching ...	220(e)	1 0 0	
Ditto ditto	For copying memorandum of association.	220(e)	4 0 0	
Arcuttipore Tea Co., Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Tarkessur Railway Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Balasun Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Rajdoha Mining Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Raniganj Coal Association, Ltd.	Ditto ditto special resolution.	79	5 0 0	
Bor Pukhuri Tea Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Bengal Paper Mill Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Thomson's Ink and Chemical Manufacturing Co., Ltd.	Ditto ditto notice of removal of registered office.	64	5 0 0	
Central Torai Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Jaigon Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Pashok Tea Co. Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Nahartoli Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Hantapara Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Calcutta Cotton Mills Co., Ltd. ...	Ditto ditto notice of removal of registered office.	64	5 0 0	
Chamurhi Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Anjuman Tea Co., Ltd. ...	Ditto ditto ditto ...	74	5 0 0	
Balasun Tea Co., Ltd. ...	Ditto ditto ditto ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Gyabaree Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Jaipur Tea Estates, Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Calcutta Cotton Mills Co., Ltd. ...	Ditto ditto special resolution.	79	10 0 0	
Karnafuli Association, Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
D. Foeeling Tea and Cinchona Association, Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
District Charitable Society	Ditto ditto proceedings of meetings.	...	...	5 0 0
Indian Match Factory, Ltd. ...	For registering memoranda of association.	40	110 0 0	
Ditto ditto	For registering articles of association ...	40	5 0 0	
Pachete Trading Corporation, Ltd.	For filing and recording balance sheet ...	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Triton Insurance Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Teesta Valley Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Ramkustopore Press Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Kisna Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Jaboka Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Durrung Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Hindu Union Bank, Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Altadanga Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Bankipore Loan Office, Ltd.	Ditto ditto ditto ...	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Indian Match Factory, Ltd. ...	Ditto ditto notice of situation of registered office.	64	5 0 0	

NAME OF COMPANY.	Purpose for which fee was paid.	Section of the Act under which realised.	Amount.	Fees realised under Act XXI of 1860.
			Rs. A. P.	Rs. A. P.
Faridpur Loan Office, Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Calcutta Christian Schools' Society ...	For searching ...	...	...	1 0 0
Dunbar Cotton Mill, Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Bengal Spinning and Weaving Co. Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Bengal Gold and Silver Mining Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Pingna Trading Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Tippera Loan Office, Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Pabna Bank, Ltd. ...	Ditto ditto ditto ...	48	5 0 0	
Calcutta Hydraulic Press Co., Ltd. ...	Ditto ditto notice of removal of registered office. ...	64	5 0 0	
Padre's Hill Mining Co., Ltd. ...	Ditto ditto ditto ...	64	5 0 0	
Agricultural Phosphates Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Ditto ditto ...	For searching ...	220(e)	1 0 0	
Budge-Budge Jute Mills Co., Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Dhupguri Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Nurbong Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Altadanga Tea Co., Ltd. ...	Ditto ditto ditto ...	48	5 0 0	
Ghatail Sammuloni Dhan Bhandar Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Pabna Bank, Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Jalpaiguri Banking and Trading Corporation, Ltd. ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Ditto ditto ...	Ditto ditto proceedings of meeting. ...	74	5 0 0	
Bowreeah Cotton Mills Co., Ltd. ...	For registering memoranda of association. ...	40	655 0 0	
Ditto ditto ...	Ditto ditto articles of association ...	40	5 0 0	
Ditto ditto ...	Ditto ditto notice of situation of registered office. ...	64	5 0 0	
Ditto ditto ...	Ditto ditto liquidators' consent ...	48	5 0 0	
Jamalpur Co-operative Association Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Indian Patent Stone Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Tookta Valley Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Darjeeling-Himalayan Railway Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Indian Tea Supply Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Kaliti Tea Co., Ltd. ...	Ditto ditto ditto ...	74	5 0 0	
Kumai Tea Co., Ltd. ...	Ditto ditto ditto ...	74	5 0 0	
Chengmari Tea Co., Ltd. ...	Ditto ditto ditto ...	74	5 0 0	
Eastern Cachar Tea Co., Ltd. ...	Ditto ditto ditto ...	74	5 0 0	
Western Bengal Prospecting Syndicate, Ltd. ...	Ditto ditto ditto ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Bowreeah Cotton Mills Co., Ltd. ...	Ditto ditto special resolution. ...	79	5 0 0	
Howrah Docking Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Pahargoomeah Tea Association, Ltd. ...	Ditto ditto special resolution ...	79	5 0 0	
Bowreeah Cotton Mills Co., Ltd. ...	Ditto ditto agreement ...	28	5 0 0	
Pahargoomeah Tea Association, Ltd. ...	Ditto ditto notice of removal of registered office. ...	64	5 0 0	
Rajmahal Stone Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Chapaguri Tea Co., Ltd. ...	Ditto ditto balance sheets ...	74	10 0 0	
Khulna Trading Co., Ltd. ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Central Chota Nagpur Syndicate, Ltd. ...	For searching ...	220(e)	1 0 0	
Jutput Gold Mining Co., Ltd. ...	Ditto ...	220(e)	1 0 0	
Chamurehi Tea Co., Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Darjeeling and Kurseong Tea Co., Ltd. ...	Ditto ditto ditto ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Kallinagar and Khoreel Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Central Cachar Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Mandakata Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
New Cinnatollah Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Chincoree Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Chandypore Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list. ...	48	5 0 0	
Sonakhan Gold and Mining Co., Ltd. ...	Ditto ditto notice of removal of the registered office. ...	64	5 0 0	
Ditto ditto ...	For searching ...	220(e)	1 0 0	

NAME OF COMPANY.	Purpose for which fee was paid.	Section of the Act under which realized.	Amount.	Fees realized under Act X of 1860.
			Rs. A. P.	Rs. A.
Dacca Loan Office, Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Khulna Trading Co., Ltd. ...	Ditto ditto notice of situation of registered office.	61	5 0 0	
Arya Tea Co., Ltd. ...	Ditto ditto special resolution.	79	5 0 0	
Indian Tea Supply Co., Ltd. ...	Ditto ditto shareholders' list.	48	5 0 0	
Jalpaiguri Tea Co., Ltd. ...	Ditto ditto proceedings of meeting.	71	5 0 0	
Iringmarrah Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Nadia Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Nagra Timber Co., Ltd. ...	For searching ...	220(e)	1 0 0	
Bengal Timber Trading Co., Ltd. ...	Ditto ...	220(e)	1 0 0	
Bengal Stone Co., Ltd. ...	For filing and recording balance sheet ...	71	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Watson's Patent Press Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Hindu Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Anjuman Tea Co., Ltd. ...	Ditto ditto ditto ...	48	5 0 0	
Eurasian and Anglo-Indian Family Benefit Fund.	Ditto ditto list of Directors.	...	...	5 0 0
Northern Bengal Tea Corporation, Ltd.	Ditto ditto proceedings of meeting.	74	5 0 0	
Tangra Tannery and Manure Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto special resolution.	79	5 0 0	
Ditto ditto ...	Ditto ditto increase of capital.	57	25 0 0	
Agricultural Phosphates Co., Ltd. ...	Ditto ditto new regulation ...	76	5 0 0	
Nagadhoole Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Munja Tea Co., Ltd. ...	Ditto ditto liquidators' final report.	187	5 0 0	
Nagra Timber Co., Ltd. ...	For searching ...	220(e)	1 0 0	
Agricultural Phosphates Co., Ltd. ...	Ditto ...	220(e)	1 0 0	
Bogra Loan Office, Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Kishoreganj Loan Office, Ltd. ...	Ditto ditto ditto ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Chota Nagpur Carrying Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Phoenix Tea Co. (of Cachar), Ltd. ...	Ditto ditto special resolution.	79	5 0 0	
Mymensingh Loan Office, Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Family Relief Fund Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Tangail Loan Office, Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Eurasian and Anglo-Indian Association.	Ditto ditto annual report ...	...	...	5 0 0
Raniganj Coal Association, Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Chota Nagpur Tea Co., Ltd. ...	Ditto ditto special resolution	79	5 0 0	
Bengal Provincial Railway Co., Ltd.	Ditto ditto notice of removal of registered office.	61	5 0 0	
Bengal Timber Trading Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Bengal Coal Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Armenian Association of Calcutta ...	Ditto ditto rules and annual report.	...	...	10 0 0
Pioneer Glass Manufacturing Co., Ltd.	For searching ...	220(e)	3 0 0	
Ditto ditto ...	For copying memoranda and articles of association.	220(e)	10 0 0	
Bogra Loan Office, Ltd. ...	For filing and recording shareholders' list.	48	5 0 0	
Himalayan Trading Co., Ltd. ...	For registering memoranda of association.	40	100 0 0	
Ditto ditto ...	For registering articles of association ...	40	5 0 0	
Nadia Tea Co., Ltd. ...	For filing and recording shareholders' list.	48	5 0 0	
Family Relief Fund Co., Ltd. ...	Ditto ditto notice of situation of registered office.	61	5 0 0	
Pioneer Glass Manufacturing Co., Ltd.	Ditto ditto agreement ...	28	5 0 0	
Union-Society ...	For registering memoranda of association.	...	...	50 0 0
Ditto ...	Ditto notice of situation of registered office.	...	...	5 0 0
Bengal-Nagpur Coal Co., Ltd. ...	For filing and recording notice of removal of registered office.	61	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Ditto ditto ...	Ditto ditto balance sheet ...	74	5 0 0	
Tangail Trading Co., Ltd. ...	Ditto ditto ditto ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Lohagur Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Chota Nagpur Tea Co., Ltd. ...	Ditto ditto ditto ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Tindaria Co., Ltd. ...	Ditto ditto special resolution.	79	10 0 0	
Calcutta Cotton Mill Co., Ltd. ...	Ditto ditto ditto ...	79	10 0 0	
Kurigram Model Co., Ltd. ...	Ditto ditto ditto ...	79	5 0 0	
Gurjang Jhora Co., Ltd. ...	Ditto ditto proceedings of meeting.	74	5 0 0	
Ditto ditto ...	Ditto ditto ditto ...	74	5 0 0	

NAME OF COMPANY.	Purpose for which fee was paid.	Section of the Act under which realised.	Amount.	Fees realised under Act XXI of 1860.
Elysium Dramatic Co., Ltd.	For filing and recording notice of removal of registered office.	64	Rs. A. P. 5 0 0	Rs. A. P.
Dacca Loan Office, Ltd.	Ditto ditto shareholders' list.	48	5 0 0	
Nadia Tea Co., Ltd.	Ditto ditto proceedings of meeting.	74	5 0 0	
Tangra Tannery and Manure Co., Ltd.	Ditto ditto notice of removal of registered office.	64	5 0 0	
Indian Match Factory, Ltd.	Ditto ditto special resolution.	79	5 0 0	
Ditto ditto	Ditto ditto new regulations.	76	5 0 0	
Lohardaga Gold Prospecting Syndicate, Ltd.	Ditto ditto notice of removal of the registered office.	64	5 0 0	
Ambikanagore Gold Prospecting Syndicate, Ltd.	Ditto ditto ditto	64	5 0 0	
Ranchi Gold Prospecting Syndicate, Ltd.	Ditto ditto ditto	64	5 0 0	
Reliance Marine Insurance Office, Ltd.	Ditto ditto special resolution.	79	5 0 0	
Sath Bhain Tea Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Kallyanpur Bihar Gold Mining Co., Ltd.	Ditto ditto notice of removal of registered office.	64	5 0 0	
Mining and Prospecting Co., Ltd.	Ditto ditto special resolution.	79	5 0 0	
Tangail Trading Co., Ltd.	Ditto ditto notice of situation of registered office.	64	5 0 0	
Kurigram Model Co., Ltd.	Ditto ditto ditto	64	5 0 0	
Tippora Loan Office, Ltd.	Ditto ditto special resolution.	79	5 0 0	
Pioneer Glass Manufacturing Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Calcutta Hackney Carriage Co., Ltd.	Ditto ditto ditto	48	5 0 0	
Sahar-Serpur Loan Office, Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Noodeam Tea Co., Ltd.	Ditto ditto ditto	48	5 0 0	
Kumai Tea Association, Ltd.	Ditto ditto ditto	48	5 0 0	
Chengamari Tea Co., Ltd.	Ditto ditto ditto	48	5 0 0	
Dhauka Mining Co., Ltd.	Ditto ditto special resolution.	79	5 0 0	
Ditto ditto	Ditto ditto notice of removal.	64	5 0 0	
Ditto ditto	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Central Jute Mills Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Hopetown Tea Co., Ltd.	Ditto ditto balance sheet	74	10 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	10 0 0	
Selim Tea Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Dehing Saw Mills Co., Ltd.	For searching	220(e)	1 0 0	
Kinnond & Co., Ltd.	Ditto	220(e)	1 0 0	
Howrah Mills Co., Ltd.	Ditto	220(e)	1 0 0	
Seelpore Jute Manufacturing Co., Ltd.	Ditto	220(e)	1 0 0	
Boroboom Co., Ltd.	For filing and recording shareholders' list.	48	5 0 0	
Bangal Nagpur Coal Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Anjuman Tea Co., Ltd.	Ditto ditto proceedings of meeting.	74	5 0 0	
Burrakur Coal Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Great Eastern Hotel Wine and General Purveying Co., Ltd.	Ditto ditto ditto	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
New Birbhum Coal Co., Ltd.	Ditto ditto special resolutions.	79	10 0 0	
Ditto ditto	Ditto ditto new regulation.	76	5 0 0	
Western Patkoom Gold Prospecting Syndicate, Ltd.	For searching	220(e)	1 0 0	
New Agra Pressing Co., Ltd.	For filing and recording balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Bagirhat Loan Co., Ltd.	For registering memoranda of association.	40	40 0 0	
Burmah Steam Tug Co., Ltd.	For filing and recording liquidators' account.	186	5 0 0	
Ditto ditto	Ditto ditto final return	187	5 0 0	
Nasmyth's Patent Press Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Elysium Dramatic Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Soorah Jute Mills Co., Ltd.	Ditto ditto situation of registered office.	64	5 0 0	
Bowroah Cotton Mills Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Kamarhaty Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Kankaryah Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list.	48	5 0 0	
Eastern Cachar Tea Co., Ltd.	Ditto ditto ditto	48	5 0 0	
Kaliti Tea Co., Ltd.	Ditto ditto ditto	48	5 0 0	
Kumai Tea Co., Ltd.	Ditto ditto ditto	48	5 0 0	
Grob Tea Co., Ltd.	Ditto ditto ditto	48	5 0 0	
Kalacherra Tea Co., Ltd.	Ditto ditto ditto	48	5 0 0	
Washabarric Tea Co., Ltd.	Ditto ditto ditto	48	5 0 0	
Loobah Tea Co., Ltd.	Ditto ditto ditto	48	5 0 0	
H. Dear & Co., Ltd.	For searching	220(e)	4 0 0	
Ditto	For copying four certificates of incorporation.	220(e)	12 0 0	

NAME OF COMPANY.	Purpose for which fee was paid.	Section of the Act under which realised.	Amount.	Fees realised under Act XXI of 1860.
			Rs. A. P.	Rs. A. P.
East India Tea Co., Ltd. ...	For filing and recording special resolution.	79	5 0 0	
Nagra Timber Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Jessore Loan Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Indian Patent Stone Co., Ltd. ...	For searching ...	220(e)	5 0 0	
Ditto ditto ...	For copying memoranda and articles of association.	220(e)	5 0 0	
Noakhali Loan Office, Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Ditto Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Soorah Jute Mills Co., Ltd. ...	For registering memoranda of association.	40	425 0 0	
Ditto ditto ...	Ditto agreement ...	28	5 0 0	
Nasirabad Loan Office, Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Eastern Ranchi Gold Prospecting Syndicate, Ltd. ...	Ditto ditto special resolution.	79	5 0 0	
Driscoll's Patent Life and Property Saving Apparatus Manufacturing Co., Ltd. ...	For registering memoranda of association.	40	175 0 0	
Ditto ditto ...	Ditto articles of association ...	40	5 0 0	
Ditto ditto ...	Ditto notice of situation of registered office.	64	5 0 0	
Calcutta Flour Mills Co., Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Co-operative Pharmacy Co., Ltd. ...	Ditto ditto ditto ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
"Hitabadi" Printing and Publishing Co., Ltd. ...	Ditto ditto notice of removal of registered office.	64	5 0 0	
Berhampore Shambhu Mill Co., Ltd. ...	For registering memoranda of association.	40	60 0 0	
Ditto ditto ...	Ditto notice of situation of registered office.	64	5 0 0	
Borobhoom Co., Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Pioneer Glass Manufacturing Co., Ltd. ...	Ditto ditto special resolution.	79	5 0 0	
Ditto ditto ...	Ditto ditto agreement ...	28	5 0 0	
Pneumatic Husking (Schumacher's Patent) Syndicate, Ltd. ...	For searching ...	220(e)	1 0 0	
Central Jute Mills Co., Ltd. ...	Ditto ...	220(e)	1 0 0	
Mount Ophir Gold Prospecting Syndicate, Ltd. ...	For filing and recording an agreement ...	28	5 0 0	
Rajdoba Mining Co., Ltd. ...	For searching ...	220(e)	1 0 0	
Bengal Coal Co., Ltd. ...	For filing and recording shareholders' list ...	48	5 0 0	
Burmah Merchant Co., Ltd. ...	For searching ...	220(e)	1 0 0	
District Charitable Society ...	For filing and recording notice of removal of registered office.			5 0 0
Hooghly Mills Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Chitpur Hydraulic Pressing Co., Ltd. ...	Ditto ditto ditto ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Bagirhat Loan Co., Ltd. ...	Ditto ditto notice of situation of registered office.	64	5 0 0	
Lobagur Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Hotewar Tea Co., Ltd. ...	Ditto ditto ditto ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Fort Gloster Jute Manufacturing Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Imperial Paper Mills Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Palganj Gold Prospecting Syndicate, Ltd. ...	Ditto ditto special resolutions.	79	10 0 0	
Ditto ditto ...	Ditto ditto notice of increase of capital.	57	175 0 0	
South Burrakur Coal Co., Ltd. ...	For registering memoranda of association.	40	325 0 0	
Ditto ditto ...	Ditto articles of association ...	40	5 0 0	
Ditto ditto ...	For filing and recording notice of situation of registered office.	64	5 0 0	
Bengal-Nagpur Coal Co., Ltd. ...	For searching ...	220(e)	1 0 0	
Killing Valley Tea Association, Ltd. ...	For filing and recording an agreement ...	28	5 0 0	
Imperial Paper Mills Co., Ltd. ...	Ditto ditto shareholders' list ...	48	5 0 0	
Titaghur Paper Mills Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Teendareea Co., Ltd. ...	Ditto ditto liquidators' account.	186	5 0 0	
Ditto ...	Ditto ditto liquidators' final return.	187	5 0 0	
Hong-Kong and Shanghai Banking Corporation. ...	Ditto ditto balance sheet ...	74	5 0 0	
Palganj Gold Prospecting Syndicate, Ltd. ...	Ditto ditto special resolution.	79	5 0 0	
Ditto ditto ...	Ditto ditto notice of increase of capital.	57	25 0 0	
Elysium Dramatic Co., Ltd. ...	Ditto ditto shareholders' list ...	48	5 0 0	
Indian Patent Stone Co., Ltd. ...	Ditto ditto special resolution.	79	15 0 0	
Union Pressing Co., Ltd. ...	For searching ...	220(e)	1 0 0	
Empress of India Cotton Mills Co., Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Palganj Gold Prospecting Syndicate, Ltd. ...	Ditto ditto an agreement ...	28	5 0 0	

NAME OF COMPANY.	Purpose for which fee was paid.	Section of the Act under which realised.	Amount.	Fees realised under Act XXI of 1860.
Baraboni Coal Co., Ltd.	For registering memorandum of association.	40	Rs. 175 0 0	
Ditto ditto	For filing and recording notice of situation of registered office.	64	5 0 0	
Buxar Co-operative Society, Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list	48	5 0 0	
Calcutta Hydraulic Press Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list	48	5 0 0	
Bengal Fisheries, Ltd.	For registering memoranda of association.	40	200 0 0	
Ditto	Ditto articles of association	40	5 0 0	
Ditto	For filing and registering notice of situation of registered office.	64	5 0 0	
Patkoom Indigo and Trading Co., Ltd.	For filing and recording balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list	48	5 0 0	
Baraboni Coal Co., Ltd.	Ditto ditto an agreement	28	5 0 0	
Killing Valley Tea Association, Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list	48	5 0 0	
Soorah Jute Mills Co., Ltd.	Ditto ditto articles of association	40	5 0 0	
Chenga Tea Co., Ltd.	Ditto ditto liquidators' final report.	187	5 0 0	
South Burrakur Coal Co., Ltd.	Ditto ditto an agreement	28	5 0 0	
Indian Imperial Marine Insurance Office, Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list	48	5 0 0	
Cachar Saw Mill and Trading Co., Ltd.	For registering memoranda of association.	40	100 0 0	
Digh Pait Milit Dhana Bhandar Co., Ltd.	For filing and recording balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list	48	5 0 0	
Northern Bengal Railway Co-operative Supply Association, Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list	48	5 0 0	
Elysium Dramatic Co., Ltd.	Ditto ditto notice of removal of registered office.	64	5 0 0	
Rangoon Steam Tramway Co., Ltd.	For searching	220(e)	1 0 0	
Sylhet Loan Co., Ltd.	For filing and recording balance sheet	74	5 0 0	
Ditto	Ditto ditto shareholders' list	48	5 0 0	
Rangoon Steam Tramway Co., Ltd.	For copying shareholders' list	220(e)	1 0 0	
Tingri Tea Co., Ltd.	For filing and recording notice of removal of registered office.	64	5 0 0	
Canal Press Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto	Ditto ditto shareholders' list	48	5 0 0	
Camperdown Pressing Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list	48	5 0 0	
Mesai Tea Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto	Ditto ditto shareholders' list	48	5 0 0	
Altadanga Tea Co., Ltd.	Ditto ditto proceedings of meeting.	74	5 0 0	
Kayastha Trading Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list	48	5 0 0	
Indian Abrating Gas Factories, Ltd.	For registering memoranda of association.	40	175 0 0	
Ditto ditto	Ditto articles of association	40	5 0 0	
Cachar Native Joint-stock Co., Ltd.	For filing and recording balance sheet	74	5 0 0	
Jhiringhat Native Tea Co., Ltd.	Ditto ditto ditto	74	5 0 0	
Dhumsiri Tea Co., Ltd.	Ditto ditto extraordinary resolution.	176	5 0 0	
Jalpaiguri Tea Co., Ltd.	Ditto ditto proceedings of meeting.	74	5 0 0	
John King & Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto	Ditto ditto shareholders' list	48	5 0 0	
Arakan Petroleum Oil Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto	Ditto ditto shareholders' list	48	5 0 0	
Killing Valley Tea Association, Ltd.	Ditto ditto notice of situation of registered office.	64	5 0 0	
Calcutta Central Press Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list	48	5 0 0	
Seraikola Mining Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list	48	5 0 0	
Howrah Mills Co., Ltd.	For searching	220(e)	1 0 0	
Zurantee Tea Co., Ltd.	Ditto	220(e)	1 0 0	
Thompson's Carriage Co., Ltd.	For filing and recording notice of removal of registered office.	64	5 0 0	
Sylhet Cultivating Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto ditto	Ditto ditto shareholders' list	48	5 0 0	
Second Falloodhi Tea Co. Ltd.	Ditto ditto proceedings of meeting.	79	5 0 0	
Kinmond & Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Ditto	Ditto ditto shareholders' list	48	5 0 0	
Ditto	Ditto ditto proceedings of meeting.	74	5 0 0	
Moran Tea Co., Ltd.	Ditto ditto special resolutions.	79	15 0 0	
Burma Coal Co., Ltd.	For registering memoranda of association.	40	450 0 0	
Ditto	Ditto articles of association	40	5 0 0	
Ditto	For filing and recording notice of situation of registered office.	64	5 0 0	
Bengal Provincial Railway Co., Ltd.	Ditto ditto balance sheet	74	5 0 0	
Bengal Nagpur Coal Co., Ltd.	Ditto ditto notice of removal of registered office.	64	5 0 0	
India General Steam Navigation Co., Ltd.	Ditto ditto balance sheet	74	10 0 0	

NAME OF COMPANY.	Purpose for which fee was paid.	Section of the Act under which realised.	Amount.	Fees realised under Act XXI of 1860.
			Rs. A. P.	Rs. A. P.
India General Steam Navigation Co., Ltd.	For filing and recording shareholders' list.	48	5 0 0	
Sakhi Samiti (Charitable Branch) ...	For registering memoranda and rules ...	...	...	55 0 0
Indian Imperial Marine Insurance Co., Ltd.	For filing and recording special resolution (extra).	176	5 0 0	
Mutual Hindu Family Pension Fund	For registering memoranda and rules ...	...	...	55 0 0
Ditto ditto ...	For filing notice of situation of registered office.	...	...	5 0 0
Mining and Prospecting Co., Ltd. ...	For searching ...	220(e)	1 0 0	
"Ruby" Patent Mica Non-conducting Boiler Composition Syndicate, Ltd.	For registering memoranda of association.	40	130 0 0	
Central Duars Tea Co., Ltd. ...	Ditto ditto ditto.	40	275 0 0	
Ditto ditto ...	Ditto articles of association. ...	40	5 0 0	
Ditto ditto ...	For filing and recording notice of situation of registered office.	64	5 0 0	
Joonktollie Tea Co., Ltd. ...	Ditto ditto special resolutions.	79	10 0 0	
Mothola Co., Ltd. ...	Ditto ditto ditto ...	79	10 0 0	
Dhatu Mining and Prospecting Syndicate, Ltd.	Ditto ditto notice of removal of registered office.	64	5 0 0	
Pingna Trading Co., Ltd. ...	Ditto ditto special resolution.	79	5 0 0	
Ditto ditto ...	Ditto ditto new regulations...	76	5 0 0	
New Birbhun Coal Coal Co., Ltd. ...	Ditto ditto balance sheet ...	74	10 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Nadia Tea Co., Ltd. ...	Ditto ditto proceedings of meeting.	74	5 0 0	
Bannockburn Tea Co., Ltd. ...	Ditto ditto special resolution.	79	5 0 0	
Anjuman Tea Co., Ltd. ...	Ditto ditto special resolutions.	79	10 0 0	
Ditto ...	Ditto ditto notice of increase of capital.	57	40 0 0	
Pioneer Glass Manufacturing Co., Ltd.	Ditto ditto notice of removal of registered office.	64	5 0 0	
Strand Bank Press Co., Ltd. ...	Ditto ditto ditto	64	5 0 0	
Pneumatic Husking (Schumacher's Patent) Syndicate, Ltd.	Ditto ditto ditto	64	5 0 0	
Bengal Spinning and Weaving Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Driscoll's Patent Life and Property Saving Apparatus Manufacturing Co., Ltd.	For searching ...	220(e)	1 0 0	
Indian Patent Stone Co., Ltd. ...	Ditto ...	220(e)	1 0 0	
Mobes Chunder Land Reclamation and Agriculture Improvement Co., Ltd.	For filing and recording balance sheet, 1891.	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list, 1891.	48	5 0 0	
Ditto ditto ...	Ditto ditto balance sheet, 1892.	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list, 1892.	48	5 0 0	
National Union Fund Co., Ltd. ...	For registering memoranda of association.	40	40 0 0	
Ditto ditto ...	Ditto articles of association ...	40	5 0 0	
Ditto ditto ...	For filing and recording notice of situation of registered office.	64	5 0 0	
Rahadurpore Tea Co., Ltd. ...	Ditto ditto shareholders' list.	48	5 0 0	
Cachar Saw Mill and Trading Co., Ltd.	Ditto ditto articles of association.	40	5 0 0	
Indian Patent Stone Co., Ltd. ...	Ditto ditto extraordinary resolution.	176	5 0 0	
Bihar Trading Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Chaitanya Library and Beadon Square Literary Club.	Ditto ditto annual list and rules.	...	...	10 0 0
Bongal Science and Art Union, Ltd.	For searching ...	220(e)	1 0 0	
Zurantee Tea Co., Ltd.	Ditto ...	220(e)	1 0 0	
Sissi Saw Mills and Trading Co., Ltd.	For filing and recording notice of removal of registered office.	64	5 0 0	
Berhampore Shambhu Mill Co., Ltd.	Ditto ditto special resolution.	79	5 0 0	
Bihar Trading Co., Ltd. ...	Ditto ditto shareholders' list	48	5 0 0	
Oriental Hosiery Manufacturing Co., Ltd.	For registering memoranda of association.	40	175 0 0	
Ditto ditto ...	Ditto articles of association ...	40	5 0 0	
Kurigram Loan Office Ltd.	For filing and recording balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list.	48	5 0 0	
Bengal-Nagpur Coal Co., Ltd. ...	Ditto ditto notice of removal of registered office.	64	5 0 0	
Borhampore Shambhu Mill Co., Ltd.	Ditto ditto increase of capital.	57	40 0 0	
Northern Bengal Tea Corporation, Ltd.	Ditto ditto proceedings of special resolution.	79	5 0 0	
Ghamurchi Tea Co., Ltd. ...	Ditto ditto ditto	79	5 0 0	
Indian Patent Stone Co., Ltd. ...	For searching ...	220(e)	2 0 0	
Ditto ditto ...	For copying extraordinary resolution ...	220(e)	1 0 0	
Sylhet Tea Co., Ltd. ...	For filing and recording notice of removal of registered office.	64	5 0 0	



NAME OF COMPANY.	Purpose for which fee was paid.	Section of the Act under which realised.	Amount.	Fees realised under Act XXI of 1880.
Pat-Pat Gold Mining Co., Ltd. ...	For filing and recording balance sheet ...	74	Rs. 5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Kharsawan Gold Syndicate, Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Baraboni Coal Co., Ltd. ...	Ditto ditto articles of association.	40	5 0 0	
Sylhet Tea Co., Ltd. ...	For searching ...	220(e)	1 0 0	
Patkoom Indigo and Trading Co., Ltd. ...	Ditto ...	220(e)	1 0 0	
Indian Aerating Gas Factories, Ltd. ...	Ditto ...	220(e)	1 0 0	
Tilakah Tea Co., Ltd. ...	For registering memoranda of association.	40	80 0 0	
Ditto ...	Ditto ditto articles of association.	40	5 0 0	
Ditto ...	For filing and recording notice of situation of registered office.	64	5 0 0	
Indian Aerating Gas Factories, Ltd. ...	For copying memoranda of association.	220(e)	1 8 0	
Ringtong Tea Co., Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Calcutta Flour Mills Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Burma Coal Co., Ltd. ...	Ditto ditto an agreement ...	28	5 0 0	
Watson's Patent Press Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Calcutta Trades' Association ...	Ditto ditto balance sheet ...	74	5 0 0	
Khulna Loan Co., Ltd. ...	Ditto ditto ditto ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Rajshahi Dhunes Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Bengal Science and Art Union, Ltd. ...	For searching ...	220(e)	1 0 0	
Rungamallee Tea Co., Ltd. ...	For filing and recording special resolution.	79	5 0 0	
Thomson's Ink and Chemical Manufacturing Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Bengal Silk Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Pat-Pat Gold Mining Co., Ltd. ...	Ditto ditto special resolution.	79	5 0 0	
Jessop & Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Goosey Cotton Mills Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Union Jute Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Khulna Trading Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Eastern Ranchi Gold Prospecting Syndicate, Ltd. ...	Ditto ditto notice of removal of registered office.	64	5 0 0	
Raaguri Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Sonapet Proprietary Gold Mining Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Seebpur Jute Manufacturing Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Anjuman Tea Co., Ltd. ...	Ditto ditto special resolution.	79	5 0 0	
Howrah Mills Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Soorah Jute Mills Co., Ltd. ...	Ditto ditto notice of removal of registered office.	64	5 0 0	
Jalpaiguri Banking and Trading Corporation, Ltd. ...	Ditto ditto special resolution.	79	5 0 0	
Garden Reach Land Syndicate, Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Pneumatic Husking (Schumacher's Patent) Syndicate, Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Kanknarrah Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Kamarshetty Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Imperial Paper Mills Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Indian Patent Stone Co., Ltd. ...	Ditto ditto liquidators' final return.	187	5 0 0	
Madaripur Loan Office, Ltd. ...	For registering memoranda of association.	40	40 0 0	
Ditto ditto ...	Ditto ditto articles of association ...	40	5 0 0	
Gouropore Co., Ltd. ...	For filing and recording balance sheet ...	74	10 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Oriental Hosiery Manufacturing Co., Ltd. ...	Ditto ditto notice of situation of the registered office.	61	5 0 0	
Dunbar Cotton Mill, Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Pat-Pat Gold Mining Co., Ltd. ...	Ditto ditto special resolutions.	79	10 0 0	
Dhupguri Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto special resolution.	79	5 0 0	
Ditto ditto ...	Ditto ditto notice of removal of registered office.	64	5 0 0	

NAME OF COMPANY.	Purpose for which fee was paid.	Section of the Act under which realised.	Amount.	Fees realised under Act XXI of 1860.
			Rs. A. P.	Rs. A.
Sonerpur Syndicate, Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Juggetpore Syndicate, Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Mohurgong Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Rungamattoo Tea Co., Ltd. ...	Ditto ditto special resolution ...	79	5 0 0	
Burrakur Coal Co., Ltd. ...	Ditto ditto shareholders' list ...	48	5 0 0	
Damuda Coal Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Matelli Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Equitable Coal Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Sington Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Cachar Native Joint-stock Co., Ltd. ...	Ditto ditto ditto ...	48	5 0 0	
Jairighat Native Tea Co., Ltd. ...	Ditto ditto ditto ...	48	5 0 0	
Padres Hill Mining Co., Ltd. ...	Ditto ditto special resolution ...	79	5 0 0	
Gouropore Co., Ltd. ...	Ditto ditto ditto ...	79	5 0 0	
Palgunj Gold Prospecting Syndicate, Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Atal Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Tingling Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Springside Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Sylhet Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Pneumatic Husking (Schumacher's Patent) Syndicate, Ltd. ...	Ditto ditto special resolution ...	79	5 0 0	
Bagirhat Loan Co., Ltd. ...	Ditto ditto shareholders' list ...	48	5 0 0	
Calcutta Steam Navigation Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Carew & Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Pabna Bank, Ltd. ...	Ditto ditto notice of removal of registered office ...	64	5 0 0	
Patkoom Indigo and Trading Co., Ltd. ...	For searching ...	220(c)	1 0 0	
Singoll Tea Co., Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Rangoon Steam Tramway Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Soom Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Oriental Ice Manufacturing Co., Ltd. ...	Ditto ditto balance sheet ...	74	10 0 0	
Sonakhan Gold and Mining Co., Ltd. ...	Ditto ditto special resolution ...	79	5 0 0	
Calcutta Roller Flour Mills Co., Ltd. ...	For registering memoranda of association ...	40	150 0 0	
Riverside Press Co. (Watson's Patent), Ltd. ...	For filing and recording balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Dhupguri Tea Co., Ltd. ...	Ditto ditto ditto ...	48	5 0 0	
Sonapshar Gold Prospecting and Mining Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Solim Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Singlo Tea Co., Ltd. ...	For searching ...	220(c)	1 0 0	
Kalyanpur Bihar Gold Mining Co., Ltd. ...	For filing and recording notice of removal of registered office ...	64	5 0 0	
Carron Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Nagaisuree Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Good Hope Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Punkabaree Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Singbulli and Murmah Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Metala Prospecting Syndicate, Ltd. ...	For searching ...	220(c)	1 0 0	
Kharsawan Gold Syndicate, Ltd. ...	For filing and recording special resolutions ...	79	15 0 0	
Empress of India Cotton Mills Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Hoolungoree Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Bengal Telephone Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Dehing Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Mothola Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Sungma Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
New Glencoe Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Longview Tea Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
India Pressing Co., Ltd. ...	Ditto ditto balance sheet ...	74	5 0 0	
Ditto ditto ...	Ditto ditto shareholders' list ...	48	5 0 0	
Kallyanpur Bihar Gold Mining Co., Ltd. ...	Ditto ditto special resolution ...	79	5 0 0	

NAME OF COMPANY.	Purpose for which fee was paid.	Section of the Act under which realised.	Amount.	Fees realised under Act XXI of 1860.
			Rs. A. P.	Rs. A. P.
Kallyanpur Bihar Gold Mining Co., Ltd.	For filing and recording new regulation ...	76	5 0 0	
Chalouni Tea Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Ellenbarrie Tea Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
North-Western Cachar Tea Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Gungaram Tea Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Manabbarrie Tea Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Buxar Co-operative Society, Ltd.	Ditto ditto ditto ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Manabbarrie Tea Co., Ltd.	Ditto ditto ditto ...	48	5 0 0	
Bengal Safety Match Manufacturing Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Bengal Spinning and Weaving Co., Ltd.	Ditto ditto special resolution.	79	10 0 0	
Hong-Kong and Shanghai Banking Corporation.	Ditto ditto balance sheet ...	74	5 0 0	
Manabbarrie Tea Co., Ltd.	Ditto ditto ditto ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Borrea Coal Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Hooghly Mills Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Chota Nagpur Gold and Mining Co., Ltd.	For searching ...	220(c)	1 0 0	
Sonapat Proprietary Gold Mining Co., Ltd.	Ditto ...	220(c)	1 0 0	
Sapakati Tea Co., Ltd.	For filing and registering balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Tempore and Gogra Tea Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Dessai and Parbuttiash Tea Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Mim Tea Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Indian Terai Tea Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Chulsa Tea Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Zurantee Tea Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Baintgooree Tea Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Bagracote Tea Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Chitpur Hydraulic Pressing Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Tuckvar Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Strand Bank Press Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Phoenix Tea Co. (of Cachar), Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Calcutta Cotton Mills Co., Ltd.	Ditto ditto balance sheet ...	74	10 0 0	
Rungamattae Tea Co., Ltd.	Ditto ditto shareholders' list.	74	5 0 0	
Ditto	Ditto ditto balance sheet ...	48	5 0 0	
Ranknarrah Lime Factory Co., Ltd.	Ditto ditto liquidators' final return.	187	5 0 0	
Jelonga Valley Tea Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Dhatu Prospecting and Mining Syndicate, Ltd.	For searching ...	220(c)	1 0 0	
Baghmundi Gold Prospecting Syndicate, Ltd.	For filing and recording liquidators' final return.	187	5 0 0	
Munshiganj Loan Office, Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Chota Nagpur Banking Association, Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto shareholders' list.	48	5 0 0	
Holta Tea Co., Ltd.	Ditto ditto balance sheet ...	74	5 0 0	
Ditto	Ditto ditto special resolution.	79	5 0 0	
			8,317 12 0	216 0 0

PRATAPA CHANDRA GHOSHA,

The 26th April 1893. •

Registrar of Companies.

# RESOLUTION ON THE INLAND EMIGRATION REPORT FOR THE YEAR 1892.

GENERAL DEPARTMENT, EMIGRATION No. 343T.—G.

*Darjeeling, the 30th June 1893.*

## RESOLUTION.

### READ—

The Report of the Superintendent of Emigration, Calcutta, on Inland Emigration for the year 1892.

1. Dr. Macleod's Report on Inland Emigration, which has been submitted with punctuality, gives an account of the recruitment of contractors' and sardari coolies to the labour districts on the lines usually followed in these reports. A special feature of the present report is the introduction of a section dealing with free emigration, which brings together a considerable amount of useful information collected by District Officers on a subject ordinarily beyond the reach of official statistics.

2. Under the licensed contractors' system of recruitment, there were 7 licensed contractors in 1892, against 6 in the previous year. In 1892, 31 recruiters licensed on behalf of these contractors, registered 4,712 immigrants as compared with 8,754 immigrants registered in the previous year by 47 recruiters. Under the certificated garden sardars' system, 3,609 sardars and 163 sardarnis registered 13,408 immigrants, the corresponding numbers in 1891 being 10,859 immigrants registered by 1,733 sardars and 61 sardarnis. In last year's Resolution, the Lieutenant-Governor observed the tendency towards an expansion of the contract system, accompanied by a falling off in the number of garden sardars. The figures given above seem to indicate a tendency to revert to the sardari form of recruitment as a means of obtaining labour for the labour districts. The reasons which have induced garden managers to double the number of sardars employed are not very apparent, and the Lieutenant-Governor will be glad to receive any further information which the Superintendent may be able to supply on this subject. The system of free emigration, authorized by section 7 of the Inland Emigration Act I of 1882 is reported to have been extensively resorted to, and is said to have been liable to many abuses. This subject has largely engaged the attention of Government during the past year, and the adoption of executive measures for the prevention of malpractices in the recruitment of free emigrants has been recognized as a necessity. Revised rules under Act I (B.C.) of 1889 dealing with the question have been drafted, and are now under the consideration of the Government of India.

3. The following statements show in a concise form the chief statistics of the despatch to Assam, Sylhet, and Cachar of emigrants under the contract, sardari, and free systems :—

### *Emigrants embarked.*

CLASS.	AT GOALUNDO FOR—								AT DHUBRI EN ROUTE TO ASSAM.		Grand Total.	
	Assam.		Sylhet.		Cachar.		Total.		1891.	1892.	1891.	1892.
	1891.	1892.	1891.	1892.	1891.	1892.	1891.	1892.				
Contractors' ...	6,121	3,329	103	170	1,007	603	7,331	4,102	Nil	Nil	7,331	4,102
Sardari ...	5,656	8,067	600	1,258	2,520	3,313	8,780	12,068	1,608	1,455	10,448	14,123
Free ...	11,638	15,822	5,387	7,377	1,478	2,705	18,307	25,904	17,740	25,002*	36,137	34,000†

\* This number includes 14,566 emigrants embarked at Goalundo for Assam, landed at Dhubri en route, and re-embarked at Dhubri.

† From the total, 48,966, has been deducted; 14,566 re-embarked at Dhubri.

*Emigrants Disembarked.*

CLASS.	Via GOALUNDO AT FINAL LANDING STATIONS IN—								Via Dhubri at final landing station in Assam.		Grand Total.	
	Assam.		Sylhet.		Cachar.		Total.		1891.	1892.	1891.	1892.
	1891.	1892.	1891.	1892.	1891.	1892.	1891.	1892.				
Contractors' ... ..	6,111	5,324	138	170	1,012	656	7,316	4,150	Nil.	Nil	7,316	4,150
Sardari ... ..	5,023	8,012	599	1,255	2,406	8,316	8,718	12,583	1,068	1,448	10,386	14,031
Free ... ..	.....	15,804	11,458	7,377	3,119	2,703	14,577	25,344	17,740	23,007*	32,317	34,325†

\* This number includes the emigrants from Goalundo who were embarked at Dhubri.

† From the total, 43,891, has been deducted the number re-embarked at Dhubri.

Comparing these figures with the figures for recruitment given in the preceding paragraph, the following statement traces the history of coolies recruited under the contractors' and sardari systems from the time of their recruitment until their disembarkation:—

CLASS.	Emigrants recruited.		Emigrants embarked.		Emigrants disembarked.	
	1891.	1892.	1891.	1892.	1891.	1892.
Contractors' ...	8,754	4,712	7,381	4,162	7,316	4,150
Sardari ...	10,859	13,408	10,448	14,123	10,386	14,031
Total ...	19,613	18,120	17,829	18,285	17,702	18,181

The total number of emigrants registered in 1892, under the emigration Act I of 1882 was 18,120 against 19,613 in 1891. The total number embarked, including those registered in the previous year, but not embarked until the year under review, was 18,285 as compared with 17,829 in 1891, while the number disembarked was 18,181 against 17,702 in 1891. Between registration and embarkation the total number of casualties was 836 or 4·6 per cent., against 1,352 or 6·8 per cent. of the previous year. During the passage the casualties among contractors' coolies were 12 and among sardari coolies (making allowance for 3 births which occurred) 95, the percentage being 0·2 and 0·6 respectively, against 0·8 and 0·5 in 1891. Among the 34,400 free emigrants shown in the statements above to have been embarked, 81 casualties occurred. The figures for free emigrants are, however, known to be inaccurate, and the Superintendent has no doubt that a much larger number of free emigrants was imported than has been ascertained.

4. The Lieutenant-Governor observes with satisfaction that the Medical

Health.

Inspector of Emigrants again reports favourably on the licensed contractors' depôts in Calcutta.

Dr. McConnell states that the depôt buildings were kept in good and serviceable condition by the contractors, and that great attention has been paid to conservancy and general sanitation. No complaint was made to the Inspector as regards either the quantity or the quality of the food supplied to the emigrants, and the water-supply is said to be excellent. The percentages of sickness and mortality to total population were 2·3 per cent. and 5·7 per mille respectively, as compared with 2·7 per cent. and 2·1 per mille in the preceding year. Thus, although the percentage of sickness was slightly less, the mortality was considerably higher than in 1891. Of the 27 deaths, 9 were due to cholera, and 13 were of infants or young children.

5. The Embarkation Agent and Medical Inspector at Goalundo has given a satisfactory account of the depôts for the accommodation of emigrants at that place. As regards the arrangements at Dhubri, information is furnished to the Assam Administration and is not available for the present report.

6. Of the 3,329 contractors' coolies embarked for Assam, 4 died between Goalundo and Assam, while 5 deaths occurred among the 833 embarked for Sylhet and Cachar. These figures compare favourably with those of the previous year.

7. On the other hand the figures of mortality among sardari emigrants who travelled *via* Goalundo do not compare so favourably with those of 1891. Of these, 12,815 left the districts of recruitment in charge of certificated garden sardars. During the journey to Goalundo 11 died, the total number of casualties, including desertions and those left behind, being 113. Prior to embarkation 30 more casualties and 2 births occurred, leaving 12,677 emigrants to embark, of whom 12,668 actually embarked before the close of the year. Among the 8,067 who embarked for Assam, 58 casualties occurred, the percentage being 0·71 against 0·56 in the previous year; 43 emigrants died from cholera and 8 from other causes, making a death-rate of 0·63 against 0·53 in 1891. Of the 4,601 sardari emigrants embarked for Sylhet and Cachar, 6 deserted and 24 died, the total casualties being 30. Of the 24 deaths 19 were due to cholera. The percentage of mortality was 0·52 compared with 0·88 in 1891.

8. It is stated that 25,904 free emigrants embarked at Goalundo against 18,397 in 1891. Of these, 20 are reported to have died between Goalundo and Assam, none between Goalundo and Sylhet, and only 2 between Goalundo and Cachar. These returns, however, are of doubtful accuracy and can scarcely be accepted as representing the real facts.

9. All sardari emigrants and free emigrants, who do not avail themselves of the Goalundo route, proceed direct to Dhubri for embarkation for the labour districts in Assam. The number of sardari emigrants who adopted the Dhubri route was 1,457. Of these 9 died on the journey to Dhubri, and at Dhubri 3 more deaths occurred. Other casualties occurred, and a number of emigrants remained undisposed of at the close of the previous year, so that altogether 1,455 actually embarked. During the voyage 7 deaths, all due to cholera, occurred, giving a death-rate of 0·48. The percentage of mortality among the 23,062 free emigrants who embarked at Dhubri is said to have been 0·23 only.

10. The Superintendent alludes in his report to three administrative measures which were carried out during the year.

Administrative.

The first two of these related to the amendment of the rules with a view to ensuring the supply of warm clothing to emigrants while travelling to the labour districts, and to facilitating the vaccination of unprotected emigrants. The third measure referred to was the issue of an important notification by the Government of Madras, extending, with the previous sanction of the Governor-General in Council, the provisions of the Inland Emigration Act I of 1882 to the district of Ganjam with effect from the 1st of April 1892.

11. Dr. R. Macleod, who was confirmed in the appointment of Superintendent of Emigration on 29th March 1892, held

Departmental.

charge of the duties of that office throughout the year. The thanks of the Lieutenant-Governor are due to him for the present report, and for the efficient manner in which he has looked after the interests of emigrants during the year.

By order of the Lieutenant-Governor of Bengal,

H. H. RISLEY,

*Secretary to the Govt. of Bengal.*

## RESOLUTION ON THE REPORT OF THE SANITARY COMMISSIONER, BENGAL, FOR THE YEAR 1892.

### MUNICIPAL DEPARTMENT—SANITATION.

*Dated Darjeeling, the 1st July 1893.*

RESOLUTION No. 2228S.

READ—

The Report of the Sanitary Commissioner, Bengal, for the year 1892.

Read also—

The Report for the year 1891, and the Resolution recorded upon it.

1. The Sanitary Commissioner of Bengal may be compared to a skilled workman labouring with indifferent tools which break in the using. Few of his deductions have hitherto been accepted without the reservation that the figures on which they are based were unreliable. It cannot be said that the figures with which the Sanitary Commissioner deals in the report under review are free from error, but a decided improvement is visible in the registration of vital statistics during the year, due chiefly to the change of system introduced from 1st January 1892, by which the work of registration was conducted entirely by the agency of the Police, and births were registered for the first time, not only in urban, but also in rural areas. The appendices to the report contain therefore, for the first time, figures for births and deaths in each registration circle, and the Lieutenant-Governor desires to call the attention of all local bodies to these interesting and valuable statements in which, however, the shortcomings of many circles are clearly demonstrated.

2. The number of towns in which births were registered in 1892 was 145, with a population of 2,768,381, as compared with 141 towns having a population of 2,716,424 in the previous year. The number of births recorded was 70,088, giving a ratio of 25·31 per mille of the population, against 58,317, or a ratio of 21·46 per mille, in the previous year. After making every allowance for the fact that towns (though many of these areas hardly deserve the title) always show a smaller birth-rate than rural areas, on account of the larger proportion of males which they contain, it is impossible to doubt that these figures are far below the mark. The highest results were returned by the towns of Siwan, Jamui, and Sasaram, in all of which the recorded birth-rate exceeded 40 per mille, and 19 other town areas, of which 9 are in the Patna Division and only 4 in Bengal, give a rate of 35 per mille or more: in 1891 only 10 towns exceeded this rate. The good results obtained in Siwan (47·71) show clearly how great an improvement can be effected by the exercise of care and attention on the part of the local authorities, and the Lieutenant-Governor expects that this care and attention shall be accorded: no municipality will be considered to be working satisfactorily in which so important a branch of the administration is neglected. In 5 towns, viz., Nasirabad, Darjeeling, Jessore, Nalchiti, and Jhalokati, the rate recorded was below 10 per mille, and in 36 towns it ranged between 10 and 20 per mille. In the towns of Baruipur, Birnagar, Jessore, Mohepur, Chanduria, Sherpur, Kurseong, Muktagacha, and Malda, the number of births recorded during the year was below 100, while in Nalchiti only 14 births were recorded and in Jhalokati only 11. This means that registration in these towns was practically neglected.

3. The total number of births recorded in rural areas was 1,911,872, giving a birth-rate of 28·27 per thousand, which, though naturally better than the result in town areas, is still doubtless inaccurate. Out of the 558 rural circles which profess to register births, only 27 have returned birth-rates exceeding 40 per mille. In the rural circles of Serampore, Barrackpore, and Patna, the number of births registered during the year was below 100, while in that of Nawabganj only 22

infants are said to have been born. The absurdity of such figures is patent on the face of them, and it is aggravated by the fact that they occur in places which, though within reach of intelligent supervision, can never have received it.

4. In both town and rural areas together, the male births numbered 1,032,902, and the female births 949,058, being 108 male births to every 100 female births, against a ratio of 110 in the previous year. These figures confirm the indication afforded by the previous paragraph, viz., that the deficiency is greatest in the registration of the births of female infants. The census figures for 1891 show that in that year the proportion of female children living to every 1,000 male infants under five years of age was 1,086. Assuming, for the sake of argument, that the mortality among infants of both sexes is equal up to that age, and that the registration of male births in 1892 was correct, these figures lead to the inference that there was a deficiency in the registration of female births of 17 per cent., and that the true number was not 949,058, but 1,115,534. This correction, if accurate, raises the birth-rate for both sexes to 30·5 per mille—a figure still low, but nearer the truth than 28·15.

5. Compared with the statistics elsewhere, the birth-rate in Bengal was lower than in any Province in India, with the exception of Madras and Burma, as the following figures will show:—

Bengal ...	28·15	Punjab ...	38·16
Madras ...	25·1	Central Provinces ...	38·39
Bombay ...	34·57	Assam ...	31·05
North-West Provinces...	36·17	Burma ...	23·07

These ratios show how deficient birth registration is in Bengal relatively to other Provinces, and of its absolute deficiency there can be as little doubt. The Bengal Census Report of 1881 showed, with much apparent probability, that the birth-rate of the Province was “not less than 45 per mille,” and this conclusion was confirmed by the conclusions of an English statistician, Mr. Hardy, to whom the census figures and the vital statistics of the Province were submitted in London. After introducing the necessary corrections deduced from a careful examination of a small body of reliable figures, Mr. Hardy evolved a birth-rate of 47·9 per mille. If this conclusion is accepted, the birth registration of 1892 was nearly 20 per mille below the truth.

6. In 1892 the total number of deaths registered throughout the Lower Provinces, in town and rural areas together, was 2,247,275 as compared with 1,896,261 in 1891, giving an annual death-rate of 31·92 and 26·94 respectively. From the statistics given in paragraph 4 of the Sanitary Commissioner's report, it appears that the highest death-rate recorded is 49·48 per mille in the Punjab, and the rates in the other Provinces were as follow:—Assam 34·21, the Central Provinces 34·14, the North-West Provinces 34·11, and Bombay 32·50, while Madras and Burma show only 22·3 and 18·83. The true rate for Bengal, estimated by Mr. Bourdillon in 1881, was “about 34 per mille,” and by Mr. Hardy 39·9, being 41·7 for males and 38·0 for females. The sex ratios recorded in Bengal in 1892 were 34·15 and 29·72 per mille respectively. The figures in paragraph 4 go to show that in Bengal the number of female births exceeds that of males, and in consequence the number of deaths should be in excess also, especially as a considerable proportion of the males born in Bengal die outside the Province. The proved longevity of females is a factor to be counted with on the other side of the argument; but, even after giving full weight to this consideration, it is clear that the deaths of females are badly reported.

7. The recorded death-rate in urban circles increased from 27·28 to 33·57; and that in rural circles from 26·93 to 31·85. In towns the figures recorded ranged between 59·31 at Muzaffarpur and 14·52 in Tangail. In no less than 41 out of the 145 towns there was a falling off in the number of deaths reported. In 60 towns, as against 34 in 1891, the rate was above 35, while in the towns of Madaripur,



Dinapore, South Subarban, Serajganj, Muktagacha, Vishunpur, Darjeeling, Cossipore-Chitpur, Nalchiti, Kishorganj, and Tangail the recorded death-rate was below 20 per thousand, which shows unmistakably that the work of registration in those towns was very much neglected.

8. The districts whose rural areas show the highest mortality are Backergunge (43·88), Balasore (43·78), Jessore (42·30), Darjeeling (41·73), Rajshahi (40·99). Nine others, viz., Champaran, Palamau, Cuttack, Puri, Muzaffarpur, Lohardaga, Monghyr, Labna, and Nadia, have rates above 35 per mille, and in 16 more they exceed 30 per mille. In most of these districts the higher death-rates denote increased mortality, but in some it is doubtless due to better registration. Balasore, Cuttack, and Puri suffered severely from cholera, as did Muzaffarpur, Backergunge, and Nadia to a less extent. Fever was very fatal in Rajshahi, Jalpaiguri, and Jessore, while the position on the list of Darjeeling is due to a combination of fever and dysentery. Turning to smaller

units than the district, some rural areas have reported a mortality which should have been noticed by the Sanitary Commissioner. In 90 instances the rates reported are between 40 and 50 per mille, and in 21 others they exceeded 50 per thousand. The worst cases are those mentioned in the margin, and the figures represent so heavy a mortality that the Lieutenant-Governor must ask for a further report showing to what the high death-rate was due in each case, and what steps

Rural area.	District.	Rate.
Darjeeling	Darjeeling	72·23
Khetlal	Bogra	66·34
Kalnol	Nadua	65·37
Muthari	Backergunge	65·26
Semaria	Hazaribagh	61·33
Salkopa	Jessore	59·10
Golachipa	Backergunge	58·03
Gonka	Palamau	55·06
Botchandpur	Jessore	55·53
Mushulabazar	Murshadabad	55·48
Berhanuddin Havildar	Backergunge	54·95
Chandbali	Balasore	54·08
Dumaria	Khulna	54·04
Hardi or Lawria	Champaran	53·24
Gorabazar	Murshadabad	52·93
Basudebpur	Balasore	52·12
Hattia	Noakhali	51·87
Tundwa	Hazaribagh	51·83
Singur	Hooghly	51·68
Aul	Cuttack	50·50
Lalpur	Rajshahi	50·08

were taken to abate the ravages of diseases both at the time or since.

9. The insanitary conditions, according to Western ideas, under which native children are brought into the world, and the constitutional weakness of infants born of parents frequently immature, cause year by year a lamentable mortality among infants under one year old. In 1892 the death-rate was higher than usual, being 168·29 per mille, against 132·95 in 1891, and 113·52, the average of the quinquennium 1887—91: part of the increase is doubtless due to better registration.

10. The following statement shows separately the death-rate from the principal diseases during the year, compared with that of the previous year and the quinquennium 1887—91:—

CAUSES OF DEATH.	IN 1892, PER MILLE.			IN 1891, PER MILLE.			IN 1887—91, PER MILLE.		
	Urban.	Rural.	Combined.	Urban.	Rural.	Combined.	Urban.	Rural.	Combined.
Cholera	5·05	3·62	·68	4·54	3·20	3·26	3·33	2·30	2·34
Small-pox	·48	·31	·31	·48	·22	·23	·32	·12	·13
Fever	18·57	23·01	22·84	12·55	19·21	18·94	10·45	16·61	16·37
Dysentery and diarrhoea	2·87	·59	·68	2·67	·52	·61	2·51	·62	·69
Injury	·44	·39	·39	·47	·41	·41	·44	·40	·40
Other causes	6·13	3·91	4·00	6·54	3·35	3·47	5·62	3·10	3·20
All causes	33·57	31·85	31·92	27·28	26·93	26·94	22·69	23·18	23·16

The most noticeable aspect of these figures is the increased mortality due to cholera and fever. The causes assigned are the excessively insanitary condition of the towns, and in rural areas defective drainage and bad drinking water, and, no doubt, these are the true causes. They are susceptible of remedy with money and systematic effort. How the money is to be provided, and what the sanitary organization should be for rural areas, are points to which reference will presently be made; here the Officiating Lieutenant-Governor would say that as sanitary improvements are expensive and not always acceptable to the people, it behoves all local authorities to concentrate their efforts on that improvement which is never unacceptable, never misunderstood, and never ineffectual in preventing disease. That improvement is the provision of good drinking water: other expensive sanitary measures can wait.

11. During the year 259,398 deaths from cholera were recorded, against 229,575 in 1891, which again was the worst year since 1876: the average of the five years 1887—91 was 165,172. It is probable that the excess is largely due to improved registration, but at the same time there is no doubt that there was a real increase of the disease in 1892, due in many districts to the deficient rainfall in the earlier months of the year, which caused wells and tanks everywhere to run dry and drove the people to drink impure water. The disease visited every district and attacked altogether, with more or less severity, 24,553 villages. The prevalence of cholera during every month of the year, its seasonal incidence, and its comparative prevalence in each district in Bengal in 1892, have been illustrated by the Sanitary Commissioner in a series of carefully prepared and interesting diagrams. The most remarkable feature in the cholera history of the year is the excessive mortality in the Orissa Division, which was comparatively free from the disease in 1891, and the immunity of Purnea, Rangpur, and Jalpaiguri, which suffered severely in that year. The ratio of deaths from cholera in the Balasore district, where it was very clearly attributable not to pilgrim infection, but to the deficiency of water, was no less than 15·0 per thousand; in Puri it was 11·30, and in Cuttack it was 10·98. The districts which suffered least were Purnea, Dinajpur, Bogra, Rangpur, Malda, Darjeeling, and Jalpaiguri, where the registered mortality was 282, 293, 160, 593, 336, 132, and 408 respectively. The extracts from the Civil Surgeons' reports given by the Sanitary Commissioner throw no new light on the etiology of the disease, though, in the graphic report of Dr. Kelly, the Civil Medical Officer of the Southal Parganas, the genesis of the disease in several striking cases is clearly demonstrated. The localities affected were invariably found to be in an insanitary condition, the water-supply impure and insufficient, and the inhabitants frequently predisposed to disease, being enfeebled by exposure and scanty and unwholesome food.

12. The mortality from small-pox during 1892 is the highest on record since 1882. The total number of deaths reported to have occurred from this disorder was 22,359 or ·31 per mille, against 16,193 or ·23 per mille in 1891, and an average ratio of ·14 per mille for the nine years 1882 to 1890. As in 1891, the disease was most prevalent in Puri, Cuttack, Lohardaga, and Midnapore, where vaccination is said to have not made much progress owing to the strong prejudices of the people. The largest number of deaths occurred among children under six years of age. The floating population of Calcutta continued to enjoy great immunity from the disease. A great development of vaccination is anticipated by the Sanitary Commissioner from the new arrangements sanctioned during the year, by which the Civil Surgeon has now full control over these operations in each district: it is obviously too soon yet for the scheme to have had any great effect.

13. Fevers prevailed to a very large extent during the year under review, and proved more fatal than in any year within the past decade. The recorded mortality from this cause was 1,607,716, or a ratio of 22·84 per mille of the population under registration, against 1,333,395, or a ratio of 18·94 per mille in 1891, and the Sanitary Commissioner points out that the death-rate is steadily increasing, for

it was 15·17 per thousand for the last ten years and 16·37 for the last five. The high death-rate of 1892, which is nearly three-fourths of the entire death-rate of the province is again attributed chiefly to increased

(20·88), Murshidabad (20·12), Lakhimpur (20·10), Monghyr (20·19), Purnea (28·42), Champaran (27·93), Bhagalpur (27·49), Darjeeling (27·02), Hazaribagh (26·6), Backergunge (26·36), Muzaffarpur (26·29), and Nadia (25·84). The first six of these districts and Nadia were the seven most fever-stricken districts in 1891 also. In Cuttack (14·84), Saran (14·01), Balasore (14·21), Singhbhum (13·24), Howrah (12·98), and Puri (6·71), the mortality was lowest. The comparative freedom of Orissa from fever is most providential, since, as has already been pointed out, this Division suffers severely from cholera and small-pox. The lowest mortality from fever, in the past as in previous years, occurred in the month of June, from which time it gradually rose till it reached its maximum during the drying up of the rains in November.

14. The high rate of fever mortality in the Jalpaiguri and Darjeeling Terai has been brought out prominently in the present report, as desired in the Resolution for 1891, and the statistics furnished, especially those for the Darjeeling Terai, which have been carefully prepared and for which the thanks of Government are due to Surgeon-Lieutenant-Colonel E. G. Russell, the Civil Surgeon of Darjeeling, afford an interesting study of the comparative unhealthiness of the Terai and non-Terai regions. In the case of Jalpaiguri the statistics, owing to defective registration, are unreliable, and the Lieutenant-Governor hesitates to accept the conclusion drawn by the Civil Medical Officer, Dr. Ashe, that "the Duars enjoyed a greater immunity from fever." That fever is terribly prevalent in the Terai, the region of malaria, is indisputable, and the following figures furnished by Dr. Russell for the Darjeeling district show this conclusively:—

Name of subdivision.					Deaths per 1,000 from fever in 1892.
Darjeeling—non-Terai	...	...	...	...	20·8
Kurseong—Midway	...	...	...	...	26·1
Siliguri—Terai	...	...	...	...	41·7

Not the least important of the statistics submitted by Dr. Russell are those which show the mortality from fever as compared with that from other causes in the various tea-gardens in the Terai. The extraordinarily high death-rates from fever in certain gardens seem to point to the necessity for closer supervision in regard to the wants of the labourers employed on them, and the attention of the Deputy Commissioners of Jalpaiguri and Darjeeling will be specially drawn to the facts and figures in paragraph 38 of the Sanitary Commissioner's Report. The matter attracted the notice of the Lieutenant-Governor some time since, and orders have already issued prescribing the regular submission of death reports from all tea estates as well as other registering circles: the Lieutenant-Governor hopes that a careful discharge of this important duty will justify the concessions which Sir Charles Elliott allowed the tea-planters of the Western Duars in respect of the appointment of chaukidars.

15. The mortality from dysentery and diarrhœa, injury, and other causes was 48,491, 27,704, and 281,607 respectively, against 43,183, 29,283, and 244,692 in 1891. As usual, Darjeeling suffered most from dysentery and diarrhœa, Balasore, Puri, Howrah, and Lohardaga coming next.

16. The total amount expended by municipalities on sanitation during 1892, exclusive of the amount spent on the maintenance of roads, whose connection with sanitation

is sometimes very slender, was Rs. 14,78,714, against Rs. 13,37,569 in 1891, showing a total advance of Rs. 1,41,145. The figures are given below:—

HEAD OF EXPENDITURE.	TOTAL EXPENDITURE.		DIFFERENCE.	
	1892.	1891.	Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.
On conservancy, including latrine	3,82,229	3,46,410	35,819	...
Ditto establishment ...	3,76,588	3,54,061	22,527	...
" Drainage ...	98,000	94,732	3,268	...
" Water-supply ...	1,50,641	1,12,027	38,614	...
" Disposal of the dead ...	6,774	6,023	...	149
" Markets and slaughter-houses	16,734	13,190	3,544	...
" Vaccination ...	18,200	17,510	690	...
" Treatment of the sick ...	2,56,752	2,41,032	15,720	...
Other sanitary works ...	72,196	1,51,694	20,502	...
Total ...	14,78,714	13,37,569	1,41,145	...
On construction, maintenance and repair of roads ...	5,03,115	4,52,322	50,793	...
Total, including roads ...	19,81,829	17,89,891	1,91,938	...

Out of nearly 15 lakhs of rupees spent on sanitation, only a lakh and a half are shown against water-supply. That does not seem to Sir Antony MacDonnell to be an adequate or satisfactory allotment; and he trusts that Municipal Commissioners will take this matter into their serious consideration. In his opinion, by far the most important object of municipal administration is the provision of a good water-supply for the people of the town.

17. The town in which the largest proportion of municipal income was devoted to original sanitary works was Faridpur (48·64), while, on the other hand, in 44 municipalities nothing at all was spent under this head. The town in which the largest portion of municipal income was devoted to sanitary works of an annually recurring nature was Nasirabad (67·05) and the lowest place is taken by Joynagar (4·41).

18. In Appendix IV is given a list of sanitary works executed in towns and rural areas by District Boards and Municipalities, and by private individuals. The total cost of the works undertaken and completed by the several local bodies is said to be Rs. 3,34,658, while that of those in progress is estimated at Rs. 62,874. The total amount spent by private individuals on sanitary works was Rs. 3,19,469, the most important work undertaken being the construction of water-works at Nasirabad in the Mymensingh district by Raja Surja Kanta Acharjya, Bahadur, at a cost of Rs. 1,42,764. On the subject of rural sanitation Dr. Gregg remarks as follows:—

"Rural sanitation is unknown in these provinces. No attention whatever is paid to conservancy or water-supply, and stagnant ponds are allowed to exhale miasma everywhere. The people are cleanly enough as regards their persons and the interior of their houses, but the surroundings of their villages are often appallingly filthy. This has been and continues to be pointed out to them as the cause of their unhealthiness, but it seems to be of no use talking, and of still less use writing pamphlets for their guidance; they are perfectly happy, though unhealthy, in the midst of their insanitary surroundings, and will not voluntarily exert themselves in the slightest to attend to the most simple sanitary precautions. Wells are dug for them and tanks are excavated, but they will not set them apart for special purposes, and obstinately use the water of the same tank for washing their persons and bathing their bodies, and washing their clothes and bathing and watering their cattle, and cleaning their utensils, and for drinking and culinary purposes. So long as this utter disregard continues, there must be a large amount of sickness, disease and death in our villages. Doubtless an improvement in this as in other respects will take place with the spread and advancement of education, but until then no real reform can, I am afraid, be effected unless the panchayat or village headmen are vested with authority to prosecute residents for non-compliance with sanitary regulations. It is manifestly beyond the powers of District or Local Boards to carry such measures into execution."

If this be a true description of the sanitary condition of Bengal villages, as it undoubtedly is, and if the District and Local Boards are impotent to deal with the situation, as they confessedly are, then the time has come to strengthen the hands of these bodies and provide that village organisation without which rural sanitation is beyond our reach. The sanitary question in Bengal, in its various phases of silting-up deltaic rivers, obstructed drainage, uncleanly towns and unhealthy villages, is the pressing question of the day, and the solution will not grow easier by being postponed.

19. To the great subject of drainage the Officiating Lieutenant-Governor will make no further reference here, though he will not overlook it; but in regard to village sanitation he wishes to say that the time has surely come to call into existence those village Unions which were specially devised in the Local Self-Government Act to deal with such simple matters as the provision of pure drinking-water for the villagers and the maintenance of the village site in a cleanly state. In every other Province of the Empire action has been taken in this direction; in Bengal alone no adequate effort has yet been made to promote rural sanitation.

20. It is true that the funds at the disposal of District Committees and Local Boards are, at present, not always adequate to meet existing requirements. The case of primary education may be specially instance<sup>d</sup> as illustrating the deficiency of existing funds. And it would be wrong to expect these funds to supply the money necessary for more than the experimental beginnings of a scheme of village sanitation. It seems also hopeless to expect that adequate assistance can be given from Provincial Funds, which are strained to meet Provincial responsibilities, as will appear from the budget estimates laid before the Bengal Legislative Council last March. If anything real and effectual, then, is to be done for the sanitation of Bengal villages, it will not do merely to call Village Unions into existence, indispensable a measure though this may be; we must also devise means to provide these Unions with the wherewithal to work.

The Officiating Lieutenant-Governor does not on this occasion offer to the public any scheme for providing the necessary funds for an efficient system of village sanitation for Bengal, Bihar and Orissa, though he hopes to take an early opportunity of putting forth certain considerations by which public opinion may be directed into channels likely to lead to some tangible and practical results. His object is to place before the public the urgent necessity which exists for action, and to invite criticism as to the direction in which action can best be taken both in regard to the provision of funds and to the general character of the sanitary improvements to be effected. On both points he has indeed formed some provisional views; but these are liable to alteration with reference to the opinions with which he expects to be favoured on this important question.

22. Owing to the frequent absence of some of the members on tour, the Sanitary Board was not able to hold more than one formal meeting during the year. Much business was, however, done in an informal way. The most important subjects which came under their consideration were the drainage and water-supply of the town of Pabna, and the drainage of the towns of Dinajpur and Jamalpur. Rough estimates were also prepared of schemes for draining the towns of Moherpur and Bettiah. A survey for the drainage of the town of Serampore has been completed, and similar schemes for the towns of Burdwan and Monghyr are being worked out. A survey of the town of Howrah for the same purpose is still in progress. Besides these projects, the Sanitary Board helped in the preparation of drainage schemes for Bally and Uttarpara, and gave their advice to municipalities on various projects, notably on the large scheme for the supply of filtered water to the town of Arrah. In fact the number of projects for water-supply and drainage proposed by Municipal Commissioners and District Boards became so numerous during the year that the Lieutenant-Governor found it necessary to define the duties of the Sanitary Board with regard to the preparation of such projects, and precise instructions on the subject have been issued. If any large plan of rural sanitation is to be undertaken, as has been now

suggested, Sir Antony MacDonnell thinks that it will be desirable to broaden the constitution of the Sanitary Board, and bring it more into touch with local bodies.

23. The Sanitary Commissioner inspected 35 municipalities during the year against 48 in the previous year, and on 10 out of these 35 Municipalities he wrote inspection-reports. A statement has been furnished by him showing the amount of inspection done by the Deputy Sanitary Commissioners and the Deputy Superintendents of Vaccination. Some of these officers failed to reach the standard of inspection prescribed by the Government of India in reviewing the report for 1889, but the omission is justified in each case.

24. The Officiating Lieutenant-Governor has perused with satisfaction the remarks recorded by the Sanitary Commissioner on the work performed by Mr. G. C. Stawell, the Engineer to the Sanitary Board, and by his Personal Assistant, Mr. A. A. Price, and other subordinates. The thanks of Government are due to Dr. Gregg for the punctuality with which his report has been submitted, and for the good work he has accomplished in spite of the ill-health from which he suffered for nearly five months of the year.

By order of the Lieutenant-Governor of Bengal,

J. A. BOURDILLON,

*Offg. Secretary to the Govt. of Bengal.*

DISTRICT ROAD FUND.

No. 4109R.C.

GOVERNMENT OF BENGAL—PUBLIC WORKS DEPARTMENT.

Road Cess.

*Dated Calcutta, the 29th June 1893.*

RESOLUTION.

READ—

Letter from the Accountant-General, Bengal, No. 198L.F., dated the 10th June 1893, submitting an abstract of receipts and expenditure of the several District Road Committees in Bengal for the quarter ending 31st March 1893.

RESOLUTION.—The Lieutenant-Governor directs that the accounts of the receipts and expenditure of the several District Road Committees in Bengal for the fourth quarter of the year 1892-93 be published in the *Calcutta Gazette* and circulated to the officers concerned.

• ORDER.—Ordered that a copy of this Resolution, together with a copy of the abstract of receipts and expenditure, be published in the Supplement to the *Calcutta Gazette*.

Ordered also, that a copy of this Resolution and of the abstract referred to, be forwarded to the Commissioners of the Rajshahi, Bhágalpur, Chittagong, and Chota Nagpur Divisions; to the Superintending Engineers of the Northern and Western Circles; to the Inspector of Works, Eastern Circle; and to the Financial Department of this Government, for information.

By order of the Lieutenant-Governor of Bengal,

F. J. JOHNSTONE,

*Secretary to the Government of Bengal.*

## DISTRICT

## Statement of Receipts and Expenditure of the several District Road

RECE

DISTRICTS.	Balance in Treasury on 1st January 1893.	PROVINCIAL RATES.				Interest on arrears of road cess collections.	PUBLIC WORKS.			IRRI- GATION.	MISCEL.		
		Cess on lands,	Cess on mines and railways.	One per cent. road cess.	Total.		Road tolls.	Ferry tolls.	Total.		Canal tolls.	Rent of warens and staging- bungalows.	Fees, fines and for- feitures.	Miscellane- ous.
CESS DISTRICTS.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs.	Rs. A. P.	Rs. A. P.	Rs.	Rs.	Rs.	Rs.	Rs. A. P.	Rs. A. P.	Rs. A. P.
	Darjeeling ...	2,748 4 9	11,542 8 4	37 0 6	...	11,579 8 10	...	...	...	...	...	...	1,000 0 0
	Hazaribagh ...	16,354 11 7	29,528 10 0	2,637 14 8	...	32,166 8 8	15 10 2	...	...	...	191 0 0	18 8 0	3 10 3
	Lohardaga ...	7,149 1 6	25,408 14 11	...	...	25,408 14 11	0 2 4	...	...	...	15 8 0	107 14 0	17 0 0
	Manbhum ...	5,280 12 7	9,412 5 7	677 6 0	...	10,280 12 1	7 14 7	...	...	...	535 4 3	2 2 0	...
	Palamau ...	7,847 8 3	12,303 9 11	2 4 0	...	12,305 13 11	59 1 5	...	...	...	47 8 0	54 11 8	11 3 3
Total ...	39,280 6 7	88,306 0 9	3,354 0 8	...	91,750 10 5	82 12 6	...	...	...	...	789 4 3	243 8 8	1,031 13 6
NON-CESS DISTRICTS.	Chittagong Hill Tracts ...	6,429 5 6	...	...	...	...	...	...	...	...	...	...	...
	Sonthal Pur- ganas ...	15,236 4 3	...	...	...	...	...	...	...	...	217 12 0	...	68 7 3
	Singhbhum ...	9,068 10 3	2,986 15 2	10 1 1	...	2,997 0 3	...	...	...	...	4 0 0	92 14 0	9 12 0
	Total ...	30,734 4 0	2,986 15 2	10 1 1	...	2,997 0 3	...	...	...	...	221 12 0	92 14 0	78 3 3
	GRAND TOTAL ...	70,020 10 7	91,385 15 11	3,364 10 9	...	94,747 10 8	82 12 6	...	...	...	...	1,011 0 3	336 1 8	1,110 0 9

## EXPEN

DISTRICTS.	REFUNDS.			PROVINCIAL RATES.	ADMINISTRATION.			STATIONERY.	PUBLIC					
	Cess.	Other receipts.	Total.		Establishment and contingencies of office of collection.	Establishment and contingencies of Committee's office.	Percentage cost of establishment for offices of account and control.		Stationary and printing.	Original works.	Repairs.	Establishment.	Tools and plant.	Establishment of Divisional Superintendent of Works.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs.
<b>Cess Districts.</b>														
Darjeeling ...	.....	.....	.....	320 12 7	203 14 4	.....	203 14 4	60 3 0	.....	2,037 1 5	109 0 0	.....	.....	.....
Hazaribagh ...	32 15 0	32 15 0	.....	251 9 0	330 4 0	.....	530 4 0	0 4 6	715 0 1	23,685 3 1	2,015 2 0	260 0 0	.....	.....
Lohardaga ...	.....	.....	.....	333 0 0	112 10 0	.....	112 10 0	5 2 0	459 7 10	12,962 4 7	1,884 4 0	308 7 9	.....	.....
Manbhum ...	.....	.....	.....	1,303 15 7	542 0 0	.....	342 6 0	100 3 8	128 0 6	7,460 11 11	1,940 0 0	.....	.....	.....
Palamau ...	.....	.....	.....	228 7 3	177 1 0	335 0 0	512 1 0	23 7 0	17 4 0	5,665 15 11	513 0 2	143 0 0	.....	.....
<b>Total</b> ...	<b>32 15 0</b>	<b>32 15 0</b>	<b>2,547 13 11</b>	<b>1,229 4 4</b>	<b>335 0 0</b>	<b>1,564 4 4</b>	<b>1,564 4 4</b>	<b>195 4 8</b>	<b>1,318 12 5</b>	<b>49,811 4 11</b>	<b>4,400 12 2</b>	<b>717 7 9</b>	<b>.....</b>	<b>.....</b>
<b>Non-cess Districts.</b>														
Chittagong Hill Tracts ...	.....	.....	.....	.....	13 12 0	.....	13 12 0	.....	.....	1,089 1 0	8,851 15 0	1,960 7 2	.....	.....
Sonthal Parganas ...	.....	.....	.....	.....	258 0 0	.....	258 0 0	30 12 0	10,700 15 3	21,262 9 2	2,157 11 6	73 8 3	.....	.....
Singhbhum ...	10 0 0	10 0 0	.....	.....	137 9 0	.....	137 9 0	8 15 0	2,021 8 0	4,168 10 0	777 4 0	.....	.....	.....
<b>Total</b> ...	<b>10 0 0</b>	<b>10 0 0</b>	<b>.....</b>	<b>409 5 4</b>	<b>.....</b>	<b>409 5 4</b>	<b>409 5 4</b>	<b>29 11 0</b>	<b>14,417 8 3</b>	<b>34,273 2 2</b>	<b>4,895 6 8</b>	<b>73 8 3</b>	<b>.....</b>	<b>.....</b>
<b>GRAND TOTAL</b> ...	<b>42 15 0</b>	<b>42 15 0</b>	<b>2,547 13 11</b>	<b>1,639 9 10</b>	<b>335 0 0</b>	<b>1,973 9 10</b>	<b>1,973 9 10</b>	<b>225 0 2</b>	<b>15,730 4 8</b>	<b>84,084 7 1</b>	<b>11,356 2 10</b>	<b>790 11 0</b>	<b>.....</b>	<b>.....</b>

FORT WILLIAM,

The 23rd May 1893.



## ROAD FUND.

Committees for the Quarter ending 31st March 1893.

IPTS.

LANEWAYS.	Totals.	Grant from Government.	EXPENSE ACCOUNT.			Provident Fund receipts.	Savings Bank investment withdrawals.	Total receipts.	Balance of imprest in hands of Engineer and others decreased.	Balance of uncashed cheques increased.	Total receipts, including balance.	Outlay.	Balance in Treasury 31st March 1893.
			Advance.	Deposit.	Total.								
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1,000 0 0	95 14 1	1,812 3 10	.....	.....	1,812 3 10	.....	.....	14,457 10 9	.....	1,628 9 11	15,864 9 5	8,548 5 8	10,316 3 6
213 2 3	507 12 0	4,627 0 9	.....	.....	4,627 0 9	55 15 0	.....	37,420 0 10	1 8 0	12,553 11 7	46,273 0 0	29,403 13 1	36,876 3 1
260 0 0	17 2 9	114 0 8	178 0 0	.....	287 0 8	.....	.....	26,013 10 3	.....	4,551 15 7	37,714 11 8	16,800 10 9	20,914 9 7
637 0 3	250 0 0	188 8 7	50 0 0	.....	238 8 7	164 1 0	.....	11,487 10 6	.....	.....	15,776 7 1	12,025 8 9	3,751 14 1
113 6 11	.....	102 9 16	201 0 0	.....	303 9 16	.....	.....	12,752 0 1	.....	153 6 1	29,784 14 5	5,721 11 6	15,863 2 1
2,084 5 8	1,080 13 10	6,644 13 8	424 0 0	.....	7,068 13 8	200 0 0	.....	1,02,197 6 5	1 8 0	13,680 11 2	1,60,375 0 2	73,980 1 9	57,114 14 1
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	22,014 0 0	.....	.....	.....	.....	.....	.....	22,014 0 0	.....	.....	36,668 0 2	12,515 3 2	24,148 13 1
286 3 3	40,208 0 0	15,243 12 11	.....	.....	15,243 12 11	.....	.....	55,738 0 2	.....	4,387 3 3	75,361 7 8	44,904 1 5	30,457 6 3
106 10 0	.....	1,722 12 3	211 10 0	.....	1,933 12 3	40 15 6	.....	5,088 0 0	.....	.....	11,156 10 8	8,843 7 2	5,813 3 1
302 13 3	62,222 0 0	16,960 9 2	211 10 0	.....	17,178 9 2	49 15 6	.....	82,810 0 2	.....	12,601 13 11	1,20,176 2 1	66,332 11 9	59,823 6 1
2,467 2 8	63,272 12 10	23,611 6 5	635 10 0	.....	24,247 6 5	249 15 6	.....	1,85,087 6 7	1 8 0	31,401 9 1	2,66,551 2 3	1,39,612 13 0	1,40,928 4 1

## DITURE.

WORKS.	Total.	Canal toll establishment and contingencies.	MISCELLANEOUS.				Total.	Contributions to Provincial Government.	EXPENSE ACCOUNT.			Provident Fund withdrawals.	Savings Bank investment deposits.	Total expenditure.	Balance of imprest in hands of Engineer and other increased.	Balance of uncashed cheques decreased.	Total outlay.
			Staging-bungalow establishment and contingencies.	Staging-bungalow petty construction and repairs.	Miscellaneous.	Provident Fund contributions.			Advance.	Deposit.	Total.						
	Rs. A. P.	Rs.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs.	Rs. A. P.	Rs. A. P.	Rs.	Rs. A. P.	Rs. A. P.
2,116 1 5	.....	.....	47 6 0	42 11 5	36 2 0	12 3 0	64 2 5	.....	5,754 5 10	.....	5,754 5 10	.....	.....	8,548 5 8	.....	.....	6,548 5 8
26,080 5 2	.....	.....	38 8 0	358 5 4	27 8 0	.....	324 5 4	.....	1,833 13 3	.....	1,833 13 3	.....	68 7 0	29,263 13 1	.....	.....	29,263 13 1
15,013 8 2	.....	.....	.....	784 14 1	.....	54 11 0	830 9 1	.....	.....	802 0 0	802 0 0	.....	.....	16,800 10 9	.....	.....	16,800 10 9
9,528 11 11	.....	.....	138 0 0	45 1 3	21 0 5	.....	204 1 8	.....	250 0 0	250 0 0	600 0 0	.....	164 1 0	12,874 15 9	7 7 0	43 2 0	12,882 15 9
4,339 10 7	.....	.....	.....	.....	.....	.....	.....	.....	415 0 0	.....	414 0 0	.....	.....	5,721 11 6	.....	.....	5,721 11 6
58,308 5 3	.....	.....	223 14 0	1,181 0 1	10 6 5	66 14 0	11,132 2 6	.....	3,254 8 1	642 0 0	8,896 3 1	.....	232 8 0	73,200 8 9	7 7 0	43 2 0	73,200 8 9
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12,501 7 2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12,615 3 2	.....	.....	12,615 3 2
34,200 7 2	.....	.....	487 5 3	1 2 0	.....	.....	428 7 3	.....	8,740 7 0	1,340 0 0	10,080 7 0	.....	.....	44,994 1 5	.....	.....	44,994 1 5
9,967 6 0	.....	.....	80 15 11	165 10 0	158 7 9	16 10 0	424 13 5	.....	1,101 0 0	120 0 0	1,221 0 0	.....	40 15 0	8,809 10 11	.....	33 12 3	8,843 10 11
53,659 4 4	.....	.....	514 5 2	166 12 8	155 7 0	16 10 0	853 3 6	.....	9,547 7 0	1,400 0 0	11,307 7 0	.....	40 15 0	66,518 15 0	.....	33 12 3	66,583 15 0
1,11,967 9 7	.....	.....	738 8 2	1,207 12 7	163 13 11	83 8 0	2,285 0 2	.....	18,101 10 1	2,102 0 0	20,203 10 1	.....	282 7 6	1,39,593 8 8	7 7 0	76 14 3	1,39,611 8 8

O. T. BARROW,

Accountant-General, Bengal.

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 1st July 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL.</b>			
BURDWAN DIV.	1 Burdwan July 1, '93	3 62	Weather—cloudy and showery. Cultivation going on Fodder and water sufficient. Prices of common rice —
	Kalna ..	11 66	
	Katwa ...	3 97	
	Raniganj ...	6 63	
	2 Bankura .. 1, '93	7 40	Weather—seasonable Sowing and transplanting of <i>aman</i> going on Prospects good. Prices of common rice.—
	Vishnupur ..	6 28	
			Srs. } per rupee.
			Burdwan ... 10 to 13
			Kalna .. 10 to 13
			Katwa ... 12½
			Raniganj ... 12
	3 Birbhum .. 1, '93	5 31	Weather—cloudy with occasional sunshine. Sowing of paddy still going on, and fields are being prepared for transplanting paddy seedlings. Price of common rice 12 to 14 seers per rupee.
	Rampur Hât ...	2 46	
	4 Midnapore .. 1, '93	6 98	Exceedingly heavy rainfall at the beginning of the week, but fair weather towards the close. The seedlings have been destroyed in many places, but the damage is not permanent, and transplanting is now going on vigorously. Prices of common rice —
			Srs. } per rupee.
			Sadar ... 10
			Contai ... 13
			Tamluk ... 11
			Ghatal ... 8½
	5 Hooghly .. 1, '93	5 49	Heavy rain in early part of week; since then ordinary monsoon weather with light rain. <i>Aman</i> cultivation in full swing. In very low lands it has been retarded by excess of water, and the seedlings have been swamped and in some cases jeopardised. A few more dry days will, however, bring them through. Jute and <i>aus</i> doing well. Prices of common rice —
	Serampore ...	12 71	
	Jahanabad ...	10 6	
			Srs. } per rupee.
			Sadar ... 10 to 11
			Serampore ... 10 to 11½
			Jahanabad ... 10 to 12½
	6 Howrah .. 1, '93	7 06	Weather—wet, drier towards the end of the week. The seedling paddy has been considerably damaged by the late excessive rain. All lands in the south of the district are under water, and a spell of dry weather is greatly desired. Sugarcane and jute doing well. Condition of cattle good. Fodder and water-supply sufficient. Price of rice 9½ to 11 seers per rupee.
	Ulubaria ...	11 96	
	7 24 Parganas .. 1, '93	7 30	Weather—cloudy and rainy. <i>Aus</i> and jute seedlings on low lands have been destroyed in consequence of the recent unusually heavy fall of rain. It has also retarded sowing and transplantation of <i>aman</i> . Prospects not favourable. Condition of cattle good. No want of fodder and water. Prices of common rice —
			Srs. Ch. } per rupee.
			Sadar ... 10 to 11½ 0
			Baranât ... 10 0
			Basuhât ... 11 0
			Diamond Harbour ... 10 10
PRESIDENCY DIV.	8 Nadia .. 1, '93	4 87	Weather—wet and cool. More damage done to paddy on low lands by the rain of the week. On the other hand, the crops on ordinary lands have benefited by it. Prospects on the whole excellent except in Kushtia, where the rain has been heaviest. Prices slightly risen owing to difficulty of transit.
	Kushtia ..	13 04	
	Meherpur ..	5 62	
	Chuadanga ..	2 48	Weather—cloudy and rainy. The rainfall has been excessive in many parts of the district, and has caused damage to <i>aus</i> and <i>aman</i> paddy on low lands. It has also retarded ploughing, sowing and weeding. Coarse rice is selling at 9 to 12 seers per rupee. Fodder sufficient.
	9 Khulna .. 1, '93	4 46	
	Bagerhat ..	14 42	
	Satkhira ..	10 32	Weather—cloudy and rainy. <i>Aman</i> and <i>aus</i> on high lands doing well, but those on low lands submerged under rain-water. Prospects of indigo and jute fair. Supply of fodder and water for cattle sufficient. Prices of rice have risen a little.
	10 Jessore .. 1, '93	3 64	
	Jhenida ..	5 29	
	Magura ..	4 73	
	Narail ..	6 25	
	Bangson ..	7 72	Weather—cloudy and rainy. Sowing of <i>aman</i> paddy nearly finished. Harvesting of indigo continues. The recent rain is said to have done some injury to the paddy crops and has greatly damaged indigo. Fodder available for cattle. Common rice sells at 10½ seers per rupee.
	11 Murshidabad .. 1, '93	5 57	



No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR.</b>			
BHAGALPUR DIV.	27 Monghyr July 1, '93	2.00	Weather—hot and cloudy with intervals of rain. <i>Bhadai</i> sowings almost finished. <i>Chenna</i> , indigo and sugarcane doing well. No cattle-disease save stray cases of small-pox at Khatkhatpur. Sufficient fodder and water. Prices of common rice:—
	Begusarai ...	2.60	
	Jamui ...	2.75	
			Srs.
			Sadar ... 13 to 15
			Begusarai ... 15
			Jamui ... 13½ } per rupee.
	28 Bhagalpur „ 1, '93	1.27	Weather—hot and cloudy. Transplanting winter rice in progress, and prospects favourable everywhere except in the Supaul subdivision, where rice seedlings are said to be dying for want of rain. Price of common rice 13 seers 11 chitaks per rupee.
	Banka ...	2.89	
	Madhupura ...	2.55	
	Supaul ...	0.34	
	29 Purnea „ 1, '93	2.11	Weather—very cloudy, wet and cool. Prospects of <i>bhadai</i> and <i>aghai</i> excellent. Weeding and transplanting going on. Indigo manufacture going on satisfactorily. Fodder and water plentiful. Prices stationary.
	Kishanganj ...	8.98	
	Araria ...	2.71	
	30 Malda „ 1, '93	2.82	Weather—generally cloudy with constant rain. The rainfall has benefited <i>bhadai</i> crops on high lands, but continued rain may injuriously affect the low land paddy where weeding operations have been much retarded. Lands are being prepared for winter rice. Price of coarse rice varies from 11 to 15 seers per rupee. Fodder and water-supply ample.
	Chunchal ...	2.04	
	Shilgaonj ...	3.81	
	Gajol ...	2.20	
	31 Southal Parganas „ 1, '93	4.50	Another week of rain. Planting of paddy and weeding of Indian-corn going on. Fair weather now needed. Some damage has been done by excessive rain. Sugarcane doing well. Price of rice rather lower.
	Deoghur ...	3.12	
	Godda ...	2.80	
	Pakur ...	4.76	
	Rajmahal ...	1.95	
PATNA DIVISION.	32 Patna „ 1, '93	1.85	Weather—cloudy and hot. Transplantation of <i>marua</i> nearly completed. <i>Makai</i> being weeded in some places. Transplantation of paddy seedlings in progress. Prices of common rice:—
	Barh ...	2.32	
	Bihar ...	1.02	
	Dinapore ...	1.22	
			Srs.
			Barh ... 15½
			Bihar ... 13
			Dinapore ... 16½
			13 } per rupee.
	33 Gaya „ 1, '93	1.18	Weather—seasonable; very little rain in latter part of week. Agricultural operations in full swing and prospects favourable. Price of rice somewhat high in Aurangabad, but from 14 to 15 seers per rupee elsewhere. Supply of fodder and water ample.
	Jahanabad ...	1.77	
	Aurangabad ...	1.60	
	Nawada ...	2.96	
	34 Shahabad „ 1, '93	2.89	Weather—seasonable. Prospects of all crops good. Fodder and water abundant. Prices stationary.
	Buxar ...	1.72	
	Bhabhun ...	3.33	
	Sasaram ...	1.77	
	35 Darbhanga „ 1, '93	5.09	Weather—cloudy and frequent heavy showers towards latter part of the week. Rainfall uneven but sufficient in places for purposes of cultivation. Transplanting of <i>marua</i> now commenced. Paddy and indigo greatly benefited by the rain. <i>Makai</i> doing well. Fodder for cattle sufficient. Prices remain stationary.
	Madhubani ...	2.13	
	Samastipur ...	2.22	
	36 Munassarpur „ 1, '93	3.52	Weather—hot and cloudy. Sowing of <i>bhadai</i> crop going on. The recent rainfall has done much good to standing crops. Sowing of paddy has commenced. Supply of fodder and water sufficient. Prices stationary. No disease among cattle.
	Hajipur ...	1.34	
	Sitamarhi ...	3.63	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.																
<b>BIHAR—consolid.</b>																			
PATNA DIVISION—consolid.	7 Saran July 1, '93	0.93	Weather—seasonable. Prospects good. <i>Bhadai</i> crops coming up well, and rice being transplanted. Fodder and water plentiful. Prices of common rice :—																
	Siwan ...	1.28																	
	Gopalganj ...	5.91																	
			<table> <tr> <td></td><td></td><td></td><td>Srs.</td></tr> <tr> <td>Chapra</td><td>...</td><td>...</td><td>13</td></tr> <tr> <td>Siwan</td><td>...</td><td>...</td><td>12</td></tr> <tr> <td>Gopalganj</td><td>...</td><td>...</td><td>13</td></tr> </table> } per rupee.				Srs.	Chapra	...	...	13	Siwan	...	...	12	Gopalganj	...	...	13
			Srs.																
Chapra	...	...	13																
Siwan	...	...	12																
Gopalganj	...	...	13																
88	Champaran .. 1. '93	5.09	Weather—cloudy with occasional sunshines. Paddy is being sown and transplanted. Sowing of <i>makai</i> nearly at an end. Prices stationary. Fodder and water sufficient.																
<b>ORISSA.</b>																			
ORISSA DIV.	39 Cuttack .. 1. '93	2.50	Weather—cloudy with occasional light showers. Sowing of <i>sarad</i> in progress. <i>Beali</i> crop doing well. Supply of fodder and water is ample. Prices of common rice :—																
40	Puri June 29, '93	0.57	Weather—cloudy. Sowing going on. <i>Beali</i> being weeded. State of miscellaneous crops good. Rice sells from 11 seers 13 chitaks to 14 seers 7 chitaks per rupee.																
	Khurda ...	1.19																	
41	Balasore July 1, '93	3.76	Weather—finer than it has been. There have been extensive floods in the north of the district the effects of which are not yet known. Some 14 annas of the <i>beali</i> rice crop has been sown, but some portion of this has been damaged by the heavy rain.																
<b>CHOTA NAGPUR.</b>																			
<i>South-West Frontier Agency.</i>																			
CHOTA NAGPUR DIV.	42 Hazaribagh July 1, '93	0.59	Weather—seasonable. Sowings still in progress. Transplanting of <i>marwa</i> commenced in places. All crops promise well. Fodder and water abundant. Prices of common rice :—																
	Giridi ...	5.06																	
	43 Lohardaga .. 1. '93	4.99	Weather—seasonable. Ploughing and sowing of winter rice continue. Prospect of <i>bhadai</i> continues favourable. Common rice selling at 13 seers per rupee. Fodder and water sufficient.																
	44 Palamu ...	...																	
	45 Singhbhum .. 1. '93	8.47	The rains have set in regularly now. Condition of all crops good. Price of common rice ranges from 10 to 12 seers per rupee. Cattle-disease reported from some villages in the Kolhan.																
	46 Manbhum .. 1. '93	6.63	Heavy rain in early part of week. A few days' bright sunshine much wanted. Seedlings suffering from excessive moisture. Prices stationary. Fodder ample. Water-supply more than sufficient.																
	Gobindpur ...	6.32																	

Published for general information.

CALCUTTA; REVENUE DEPT.,

The 4th July, 1893.

H. H. RISLEY,

Secy. to the Govt. of Bengal.

## PRICES-CURRENT (retail) of Food-grains, Firewood, and Salt in the

QUANTITIES PER RUPEE IN

Number.		DISTRICTS.	QUANTITIES PER RUPEE IN																									
			WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU. (Sorghum Vulgar.)													
			Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.								
BENGAL.																												
BURDWAN DIVISION.	1	Burdwan	13 8	13 8	11 0½	...	...	...	9 4	9 12	10 14	11 4	11 4	12 15	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	2	Bankura	13 8	13 5	10 0	...	18 0	...	9 8	10 0	11 0	11 4	11 0	13 8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	3	Birbhum	12 0	12 0	10 8	...	...	...	10 8	10 8	10 3	12 12	12 12	12 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	4	Midnapore	11 0	11 0	11 0	...	...	...	10 0	10 0	10 0	11 8	11 14	12 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	5	Hooghly	11 12	11 13	12 0	...	...	...	8 0	8 0	8 0	10 0	10 0	10 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	6	Howrah	...	...	...	...	...	...	...	8 12	9 5	8 10	10 10	10 8	13 5	...	...	...	...	...	...	...	...	...	...	...	...	...
PRESIDENCY DIVISION.	7	Calcutta	13 4	13 4	11 7	17 12	17 12	14 8	8 8	8 3	7 14	10 10	10 10	10 12	20 0	20 0	15 8	...	...	...	...	...	...	...	...	...	...	...
	8	24-Parganas	11 4	11 0	11 4	20 0	20 0	15 0	8 0	8 0	8 0	11 0	11 0	11 8	16 0	17 0	...	...	...	...	...	...	...	...	...	...	...	...
	9	Nadia	14 8	14 8	12 0	21 0	...	18 13	8 12	8 12	10 5	10 11	11 0	11 7	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	10	Khulna	...	...	...	...	...	...	9 2	10 10	10 12	10 0	12 14	13 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	11	Jessore	10 0	10 0	10 0	13 4	...	...	...	9 4	9 8	9 8	10 8	11 0	13 0	...	...	...	...	...	...	...	...	...	...	...	...	...
	12	Murshidabad	12 0	13 0	12 0	...	...	...	...	9 0	10 0	9 0	11 0	11 4	12 8	...	...	...	...	...	...	...	...	...	...	...	...	...
CHITTAGONG DIVISION.	13	Chittagong	10 0	10 0	10 8	...	...	...	10 8	10 8	8 8	11 12	12 0	10 14	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	14	Noakhali	...	...	...	...	...	...	10 0	9 13	10 8	11 6	11 8	11 8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	15	Tippera	10 0	11 0	10 0	...	...	...	8 12	8 0	8 6	10 12	10 12	10 10½	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	16	Chittagong Hill Tracts.*	...	...	...	...	...	...	...	...	...	...	...	8 14	10 0	...	...	...	...	...	...	...	...	...	...	...	...	...
DACCA DIVISION.	17	Dacca	12 0	12 0	10 8	...	...	...	9 0	10 8	10 0	10 0	11 0	13 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	18	Faridpur	17 0	17 0	14 0	20 0	20 0	18 0	7 0	7 0	11 0	9 8	10 8	12 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	19	Backergunge	...	...	...	...	...	...	9 0	9 9	7 4	9 12	10 0	10 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	20	Mymensingh	9 8	9 8	9 0	...	...	...	10 0	10 0	10 0	11 0	11 0	13 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
RAJSHAHI DIVISION.	21	Dinaipur	12 0	13 8	10 8	16 0	20 0	16 0	9 0	9 6	9 8	12 0	12 0	10 8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	22	Rajshahi	13 8	13 8	12 0	24 0	24 0	19 8	9 12	9 12	9 12	10 14	10 14	10 8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	23	Rangpur	13 0	12 0	10 0	...	...	...	15 0	8 14	10 6	11 0	11 0	11 10	...	...	...	...	...	...	...	...	...	...	...	...	...	...

\* Present return not received.

† The decrease is due to scarcity and high price of rice prevailing in the half year under report.

A In the subdivisions the retail prices of salt per rupee are:—Kalna 10 seers, Katwa 11½ seers, and Raniganj 11 seers.

B At Vinhnupur the retail price of salt is 10 seers per rupee.

C At Rampur Hat the retail price of salt is 11 seers per rupee.

D In the subdivisions the retail prices of salt per rupee are:—Contai 9 seers, Tamluk 11 seers, and Ghatal 10 seers 7 chitaks.

E In the subdivisions the retail prices of salt per rupee are:—Serampore (at Bhadradeswar) 11½ seers and Jahanabad 10 seers 10 chitaks.

F At Ulubaria the retail price of salt is 11 seers per rupee.

G In the mufassal marts the retail prices of salt per rupee are:—Chotla Hat 11 seers 7 chitaks, Barasat 10 seers 10 chitaks, Magra-

H At 10 seers 10 chitaks, and Baduria 11 seers.

I In the mufassal marts the retail prices of salt per rupee are:—Bahadurkhal 10½ seers, Chuadanga 10 seers, Meherpur 10½ seers, and

J In the subdivisions the retail prices of salt per rupee are:—Bagerhat 8 seers and Rathburi 10 seers.

*on the 30th June, 1893.*

PEERS OF 80 TOLAHS.			KANGNI OR KAKUN, ITALIAN MILLET. ( <i>Scleria italica</i> .)			GRAM, CHANA, CHHOLA, KADALAY OR SUNAGA. ( <i>Cicer arietinum</i> .)		
BAJRA OR CUMBU. <i>Pennisetum typhoidum</i> .)	MARUA OR RAGI. ( <i>Eleusine Corocana</i> .)		Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.

[illegible]

PER MONTH.				DISTRICTS.	Number.
HORSE- FEES.	SKILLED LABOUR— COMMON MASON, CARPENTER, OR BLACKSMITH.				
Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.		

[illegible]

seers 9 chitaks, Magura 10 seers, Narail 9 seers 10  
d Jangipur 10 seers.

U. In the munsassa marts the retail prices of salt per rupee are :—Madanganj 10 seers, Manikganj 9 seers 13 chitaks, Munshirhat 10 seers, and Mirtekidim 10 seers.

P. At Madaripur and Goalundo the retail price of salt is 10 seers per rupee.

Q. In the subdivisions the retail prices of salt per rupee are :—Pirojpur 10 seers, Patuakhali 9 seers, and Bhola 10 seers.

R. In the Kagramari, Netrakona, Kishorganj, and Jamalpur subdivisions the retail price of salt is 10 seers per rupee.

S. In the subdivisions the retail prices of salt per rupee are :—Nator 9 seers and Naugaon 9 seers 9 chitaks.

T. In Gaibanda and Nilphamari the retail price of salt is 10 seers per rupee.

## PRICES-CURR

Number.	DISTRICTS.	WHEAT.				BA.
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	

## BENGAL.

		S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.
BURDWAN DIVISION.	1 Burdwan	13 8	13 8	11 0	3	...		
	2 Bankura	13 8	13 5	10 0	...			
	3 Birbhum	12 0	12 0	10 8	...			
	4 Midnapore	11 0	11 0	11 0	...			
	5 Hooghly	11 12	11 13	12 0	...			
	6 Howrah	...	...	...	...			
PRESDENCY DIVISION.	7 Calcutta	13 4	13 4	11 7	17 12			
	8 24-Parganas	11 4	11 0	11 4	20 0			
	9 Nadia	14 8	14 8	12 0	21 0			
	10 Khulna	...	...	...	...			
	11 Jessore	10 0	10 0	10 0	13 4			
	12 Murshidabad	12 0	13 0	12 0	...			
CHITTAGONG DIVISION.	13 Chittagong	10 0	10 0	10 8	...			
	14 Noakhali	...	...	...	...			
	15 Tippera	10 0	11 0	10 0	...			
	16 Chittagong Hill Tracts	...	...	...	...			
DACCA DIVISION.	17 Dacca	12 0	12 0	10 8	...			
	18 Faridpur	17 0	17 0	14 0	20 0			
	19 Backergunge	...	...	...	...			
	20 Mymensingh	9 8	9 8	9 0	...			
RAJSHAH DIVISION.	21 Dinaipur	12 0	13 8	10 8	16			
	22 Rajshahi	13 8	13 8	12 0	24			
	23 Ranepur	13 0	12 0	10 0	...			

INDIAN-CORN OR MAIZE. (Zea Mays.)			ARRAR OR THUR, CADJAN PEA. (Cajanus Indicus.)			FIRWOOD.		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
...	...	...	23 0	23 0	16 8	106 0	106 0	100
...	17 0	...	11 8	11 0	17 0	280 0	320 0	280
...	...	...	20 0	20 0	10 3	200 0	200 0	180
...	...	...	19 0	19 0	11 0	240 0	240 0	120
...	...	...	13 6	13 5	11 0	120 0	120 0	120
...	...	...	12 10	12 10	10 10	105 0	105 0	106
20 0	20 0	...	20 0	20 0	15 8	91 6	85 0	85
16 0	...	16 0	21 0	21 0	18 0	100 0	100 0	100
...	...	...	23 12	23 12	17 8	128 0	128 0	...
...	...	...	11 0	11 0	12 4	160 0	160 0	160
...	...	...	22 0	20 0	18 0	120 0	130 0	120
...	...	...	18 0	20 0	17 0	200 0	200 0	200
...	...	...	...	...	...	106 0	106 0	110
...	...	...	...	...	...	...	...	...
...	...	...	12 0	11 4	7 6	...	...	...
...	...	...	...	...	...	...	240 0	240
...	...	...	19 0	19 0	15 0	120 0	120 0	120
...	...	...	...	...	...	...	...	...
Mun. 8 0	8 0	...	10 0	10 8	...	80 0	80 0	80
...	...	...	13 0	13 0	13 0	120 0	120 0	120
...	...	...	21 8	24 0	14 0	160 0	160 0	160
...	...	...	21 4	21 8	18 8	240 0	240 0	240
...	...	...	9 8	8 0	9 0	100 0	120 0	80

† The decrease is due to scarcity and high price of rice

A In the subdivisions the retail prices of salt per rupee

B At Vishnupur the retail price of salt is 10 seers per

C At Rampur Hat the retail price of salt is 11 seers per

D In the subdivisions the retail prices of salt per rupee are:—

E In the subdivisions the retail prices of salt per rupee are:—Serampore (at Bhaddreswar) 11 seers and Jahanabad 10 seers 10 chitaks.

F At Ulubaria the retail price of salt is 11 seers per rupee.

G In the mufassal parts the retail prices of salt per rupee are:—Chetla Hat 11 seers 7 chitaks, Barasat 10 seers 10 chitaks, Magra-

H At 10 seers 10 chitaks, and Baduria 11 seers.

I In the mufassal parts the retail prices of salt per rupee are:—Bahadurkhal 10 seers, Chundanga 10 seers, Meherpur 10 seers, and

J In the subdivisions the retail prices of salt per rupee are:—Bagerhat 8 seers and Satkhira 10 seers.



## Head-quarters Bazars of the Districts of Bengal on the 30th June, 1893.

			WHOLESALE PRICES PER MAUND OF 40 SEERS.			AVERAGE WAGES PER MONTH.												
SALT.			SALT.			UNSKILLED LABOUR— ABLE-BODIED AGRICULTURAL LABOURERS.			STON OR HORSE- KEEPER.			SKILLED LABOUR— COMMON MASON, CARPENTER, OR BLACKSMITH.						
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	DISTRICTS.		Number.	
BENGAL.																		
S. Ob.	S. Ob.	S. Ch.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.				
11 A	11 10	11 10	3 7 0	3 6 0	3 4 8	7 8	7 0	8 0	6 0	6 0	6 0	10 0	10 0	10 0	Burdwan	1	BURDWAN DIVISION.	
10 B	10 8	10 0	3 14 0	3 13 0	4 0 0	5 0	6 0	6 0	4 0	4 0	4 0	10 0	10 0	10 0	Bankura.	2		
11 C	11 0	10 4	3 10 6	3 10 6	3 14 0	6 8	7 8	7 8	6 0	6 0	6 0	15 0	15 0	15 0	Birbhum.	3		
10 D	11 7	11 0	3 11 6	3 7 0	3 12 0	7 8	7 8	7 8	6 0	6 0	6 0	12 0	12 0	12 0	Midnapore.	4		
10 E	10 0	10 0	3 6 0	3 6 0	3 12 0	7 0	7 0	7 0	5 0	5 0	5 0	12 0	12 0	12 0	Hooghly.	5		
10 F	10 10	10 10	3 8 0	3 8 0	3 8 0	7 8	9 6	7 8	7 0	7 0	7 0	12 0	12 0	12 0	Howrah.	6		
Cooly.																		
10 G	10 7	11 4	3 13 0	3 13 0	3 4 6	9 0	9 0	9 0	7 0	6 0	6 0	15 0	15 0	15 0	Calcutta.	PRESIDENCY DIVISION.	7	
11 H	11 0	11 0	3 6 0	3 6 0	3 5 0	6 8	6 8	6 0	6 0	6 0	6 0	15 8	15 0	15 0	24-Parganas.			
11 I	10 8	10 10	3 8 0	3 12 0	3 8 0	10 0	10 0	10 0	7 0	7 0	7 0	20 0	20 0	20 0	Nadia.			8
10 J	10 8	9 0	3 12 0	3 12 0	4 0 0	7 8	7 8	7 8	7 0	7 0	8 0	10 0	10 0	10 0	Khulna.			9
9 K	10 0	9 2	3 10 0	3 10 0	3 10 0	9 6	9 6	9 6	9 0	9 0	5 0	10 0	10 0	10 0	Jessore.			10
10 L	10 8	10 8	3 7 0	3 7 0	3 7 0	3 12	3 12	3 12	4 0	4 0	4 0	20 0	20 0	20 0	Murshidabad.			11
Cooly.																		
10 M	10 0	9 0	4 0 0	4 0 0	4 4 0	9 0	11 0	11 0	7 8	8 0	12 0	12 0	12 0	12 0	Chittagong.	12	CHITTAGONG DIVISION.	
10 N	9 6	8 0	3 14 0	4 0 0	4 4 0	5 0	6 0	5 0	5 0	5 0	10 0	8 0	8 0	8 0	Noakhali.	13		
10 O	10 13	10 5	3 12 0	3 12 0	3 14 0	7 0	7 8	7 0	6 0	6 0	6 0	7 8	8 0	8 0	Tippera.	14		
10 P	8 0	8 0	4 8 0	4 12 0	12 0	12 0	12 0	12 0	12 0	...	20 0	20 0	20 0	20 0	Chittagong Hill Tracts.	15		
10 Q	10 0	10 0	3 9 0	3 9 0	3 11 0	5 0	6 0	6 0	5 0	6 0	6 0	7 0	8 0	8 0	Dacca.	16	DACCA DIVISION.	
10 R	10 4	11 0	3 14 0	3 14 0	3 12 0	7 0	7 0	7 0	7 0	7 0	15 0	20 0	20 0	20 0	Faridpur.	17		
10 S	10 10	10 0	3 12 0	3 12 0	3 10 0	6 0	6 0	6 0	7 0	7 0	7 0	13 8	13 8	13 8	Backergunge.	18		
10 T	10 0	10 0	4 0 0	4 0 0	3 14 0	7 8	7 0	7 0	8 0	7 0	10 0	15 0	15 0	15 0	Mymensingh.	19		
10 U	10 0	10 8	4 0 0	3 12 0	3 12 0	7 8	7 8	7 8	8 0	8 0	6 0	10 0	7 8	10 0	Dinajpur.	20	RAJSHAH DIVISION.	
9 V	9 9	9 9	3 10 8	3 10 8	3 10 8	5 0	5 0	5 0	5 0	5 0	15 0	15 0	15 0	15 0	Rajshahi.	21		
10 W	8 8	10 7	3 12 0	4 0 0	4 0 0	7 8	6 0	7 0	6 0	6 0	16 0	16 0	16 0	16 0	Rangpur.	22		

J In the subdivisions the retail prices of salt per rupee are:—Jhenida 9 seers 9 chitaks, Magura 10 seers, Narail 9 seers 10 chitaks, and Bangaon 10 seers 11 chitaks.

K In the subdivisions the retail prices of salt per rupee are:—Kandi 10½ seers and Jangipur 10 seers.

L At Cox's Bazar the retail price of salt is 6 seers per rupee.

M At Fenny the retail price of salt is 9 seers per rupee.

N In the subdivisions the retail prices of salt per rupee are:—Brahmanbaria 9 seers 2 chitaks and Chandpur 9 seers.

O In the mufassal marts the retail prices of salt per rupee are:—Madanganj 10 seers, Manikganj 9 seers 13 chitaks, Munshirhat 10 seers, and Mirkadim 10 seers.

P At Maderipur and Goalundo the retail price of salt is 10 seers per rupee.

Q In the subdivisions the retail prices of salt per rupee are:—Pirojpur 10½ seers, Patuakhali 9 seers, and Bhola 10 seers.

R In the Kagmari, Netrakona, Kishorganj, and Jamalpur subdivisions the retail price of salt is 10 seers per rupee.

S In the subdivisions the retail prices of salt per rupee are:—Nator 9 seers and Naugaon 9 seers 9 chitaks.

T In Gaibanda and Nilphamari the retail price of salt is 10 seers per rupee.

## PRICES-CURRENT (retail) of Food-grains, Firewood, and Salt in the Head-quarters

Number.	DISTRICTS.	QUANTITIES PER RUPEE IN																
		WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU. (Sorghum Vulgare.)				
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.		
BENGAL—continued.																		
RAJSHAH DIVISION. —contd.	23	Bogra	...	13 5	10 15	12 0	...	...	...	9 0	9 9	9 12	12 0	12 0	12 0	...	...	...
	24	Pabna	...	17 4	17 10	13 8	22 8	22 8	...	6 0	6 0	6 12	10 4	11 10	12 4	...	...	...
	25	Darjeeling	...	8 0	8 0	8 0	9 0	9 0	8 0	5 8	5 0	5 0	9 8	9 8	9 0	...	...	...
	26	Jalpaiguri	...	13 0	12 0	11 0	12 0	16 0	16 0	8 0	8 8	6 0	11 8	12 0	10 0	...	...	...
BIHAR.																		
BHAGALPUR DIVISION.	27	Monghyr	...	{ 14 8 to 16 0 }	{ 14 8 to 16 2 }	14 3	{ 21 0 to 23 0 }	{ 21 0 to 23 0 }	13 10	{ 8 0 to 10 0 }	{ 8 0 to 10 0 }	9 7	{ 12 0 to 13 8 }	{ 12 0 to 13 8 }	11 0	17 8	17 8	...
	28	Bhagalpur	...	15 2	15 2	13 14	21 7	20 3	16 6	12 1	11 14	10 1	13 14	13 14	11 6	...	...	...
	29	Purnea (Kasba)*	...	14 0	14 0	11 0	...	...	...	10 0	10 0	9 0	13 0	12 0	10 0	...	...	...
	30	Malda (English Bazar).	...	13 8	14 0	12 8	...	...	...	10 0	10 0	9 8	12 8	12 8	11 0	...	...	...
	31	Sonthal Parganas.	...	11 0	11 0	11 0	...	...	...	11 0	11 0	9 0	14 0	14 0	12 8	...	...	...
PATNA DIVISION.	32	Patna	...	{ 16 8 to 14 0 }	{ Red. 16 0 White. 14 0 }	14 8	21 0	19 0	18 8	10 0	10 0	10 8	15 8	15 8	12 0	22 0	23 0	19 8
	33	Gaya	...	13 12	14 0	12 8	20 4	20 0	16 8	9 8	9 8	10 0	13 0	13 4	11 8	18 4	20 0	13 8
	34	Shahabad*	...	...	13 0	14 0	...	18 0	16 0	...	8 0	8 0	...	13 0	10 8	...	...	...
	35	Darbhanga	...	12 0	13 3	13 3	18 14	18 11	17 10	12 9	11 0	10 0	14 0	14 0	12 0	...	...	...
	36	Muzaffarpur	...	13 0	14 0	13 0	19 0	19 0	18 0	8 0	8 0	9 0	13 0	13 0	11 0	...	...	...
	37	Saran	...	14 8	14 0	13 12	21 4	20 8	17 12	10 0	9 0	8 8	13 0	13 4	11 6	...	...	...
	38	Champaran	...	13 0	13 0	12 8	22 8	22 8	17 0	8 8	8 8	9 0	13 8	13 8	12 8	...	...	...
ORISSA.																		
ORISSA DIVISION.	39	Cuttack	...	10 8	13 2	9 3	...	...	...	10 8	10 8	8 8	13 2	13 2	11 2	...	...	...
	40	Puri	...	8 2	10 8	8 2	...	...	...	8 0	8 0	7 8	11 13	13 2	10 8	...	...	...
	41	Balasore	...	11 0	11 0	10 12	10 0	10 0	10 0	10 0	10 0	10 0	13 0	13 0	14 0	...	...	...
CHOTA NAGPUR.																		
CHOTA NAGPUR DIVISION.	42	Hazaribagh	...	12 0	12 0	12 0	18 0	16 0	16 0	7 0	7 0	8 0	12 0	12 0	12	...	...	...
	43	Lohardaga	...	{ 11 0 to 8 0 }	{ Red. 11 8 White. 9 0 }	10 0	16 0	16 0	{ 12 0 to 13 0 }	{ 10 0 to 11 0 }	{ 10 0 to 10 8 }	12 0	{ 12 0 to 13 0 }	{ 12 0 to 13 0 }	{ 13 0 to 15 0 }	...	...	...
	44	Palamau*	...	...	10 0	14 10	12 6	...	20 4	20 4	...	11 4	13 8	...	13 8	14 1	...	...
	45	Singhbhum	...	10 0	10 0	14 0	...	...	...	9 0	8 0	13 0	11 0	10 0	16 0	...	...	...
46	Manbhum	...	13 4	13 0	11 8	...	...	...	{ 8 0 to 9 0 }	11 0	10 8	{ 12 0 to 13 0 }	{ 12 0 to 13 0 }	14 0	...	...	...	

\* Present return not received.

U At Sirajganj the retail price of salt is 11½ seers per rupee.

V At Alipur the retail price of salt is 8 seers per rupee.

W In the Begusarai and Jamui subdivisions the retail price of salt is 10 seers per rupee.

X In Banka, Madhipura and Supaul the retail price of salt is 10 seers per rupee.

Y In the subdivisions the retail prices of salt per rupee are—Kishanganj 10½ seers and Araria 10 seers.

Z In the subdivisions the retail prices of salt per rupee are:—Deoghar 10½ seers, Godda 9 seers, Jamtara 9 seers, Fakur 10½ seers, and Rajmahal 10 seers.

a In the subdivisions the retail prices of salt per rupee are:—Barh 11 seers, Bihar 10½ seers, and Dinapore 9½ seers.

[illegible]

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b In the subdivisions the retail prices of salt per rupee are :—Jahanabad 10 seers, Aurangabad 10 seers, and Nawada 9 seers.  
c In the subdivisions the retail prices of salt per rupee are :—Madhubani 11 seers and Sumastipur 10 seers.  
d In the subdivisions the retail prices of salt per rupee are :—Hajipur 10½ seers and Sitamarhi 11 seers.  
e In the subdivisions the retail prices of salt per rupee are :—Siwan 10 seers 14 chitaks and Gopalganj (Mirganj) 11 seers 13 chitaks.  
f At Bettiah the retail price of salt is 10 seers per rupee.  
g In the subdivisions the retail prices of salt per rupee are :—Jajpur 8 seers, Kondrapara 9 seers, and Banki 11½ seers.  
h At Bhadrak the retail price of salt is 10 seers per rupee.  
i At Giridih the retail price of salt is 11 seers per rupee.  
j At Gobindpur the retail price of salt is 11 seers per rupee.

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RE, JULY 5, 1893.

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**1893—(concluded).**

[illegible]

**BENGAL**—continued.

A.	Rs. A.	Rs. A.	Rs. A.		
0		10 0	10 0		
0		to	to	Bogra.	23
0	7 0	20 0	20 0		
0	to	7 0	7 0		
0	20 0	to	to	Pabna.	24
0	12 0	20 0	20 0		
0	to	15 0	15 0	Darjeeling.	25
0	30 0	to	to		
0	12 0	30 0	22 0		
0	to	15 0	15 0	Jathalguri.	26
0	20 0	to	to		
0	7 8	3 0	4 4		
0	to	to	to	Monghyr.	27
0	11 4	5 0	15 0		
0	8 0	8 0	10 0		
0	12 0	to	to	Bhagalpur.	28
0	8 0	8 0	10 0		
0	to	to	to	Purnea.	29
0	15 0	14 0	15 0		
0	8 0	8 0	8 0		
0	to	to	to	Malda.	30
0	12 0	12 0	12 0		
0	7 8	7 8	7 8		
0	to	to	to	Sonthal Parganas.	31
0	15 0	15 0	15 0		
0	7 0	7 0	7 8		
0	to	to	to	Patna.	32
0	8 0	8 0	11 4		
0	5 8	5 8	5 8		
0	to	to	to	Gaya.	33
0	8 0	8 0	8 0		
0	3 0	3 0	3 0		
0	to	to	to	Shahabad.	34
0	10 8	10 8	7 8		
0	4 8	4 8	7 8		
0	to	to	to	Darbhanga.	35
0	9 6	9 6	9 0		
0	5 10	5 10	5 10		
0	to	to	to	Muzaffarpur.	36
0	9 6	9 6	9 6		
0	5 10	5 10	5 10		
0	to	to	to	Saran.	37
0	10 0	10 0	10 0		
0	5 0	5 0	5 0		
0	to	to	to	Champaran.	38
0	8 0	8 0	8 0		

**ORISSA.**

0	{ 7 8 9 6 7 8 to 10 0	{ 7 8 to 9 6 9 0 to 10 0	{ 7 8 to 9 6 7 8 to 10 0	Cuttack.	39
0	{ 7 8 to 10 0	{ 7 8 to 9 6 9 0 to 10 0	{ 7 8 to 9 6 7 8 to 10 0	Puri.	40
0	{ 7 8 to 10 0	{ 7 8 to 9 6 9 0 to 10 0	{ 7 8 to 9 6 7 8 to 10 0	Balasore.	41

ORISSA  
ORISSA DIVI-  
SION.

CHOTA NAGPUR.

0	7	8	7	8	7	8	Hazaribagh.	42
0	5	10	5	10	3	12		
0	9	6	11	4	9	6	Lohardaga.	43
0					7	8		
0			7	8			Palamau.	44
0	15	0	12	0	12	0		
0	11	4	10	5	10	5	Singbhum.	45
0								
0	22	8	18	12	18	12	Manbhum.	46

CHOTA NAGPUR  
DIVISION.

## PRICES-CURRENT (wholesale) of Food-grains, Firewood, and Salt

Number.	MARTS.	WHEAT.			BARLEY.			RICE, BEST SORT.			RICE COMMON.		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
		R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
1	Calcutta ...	3 0 0	3 0 0	3 8 6	2 4 6	2 4 6	2 8 0	4 14 0	4 14 0	4 14 3	3 12 0	3 12 0	3 7 3
2	Sirajganj ...	3 6 0	2 12 0	3 3 0	...	...	...	6 5 0	6 5 0	5 6 0	3 14 0	4 0 0	3 2 0
3	Dacca ...	3 4 0	3 4 0	3 12 0	...	...	...	4 7 0	3 12 0	4 0 0	4 0 0	3 8 0	3 0 0
4	Narayanganj ...	...	...	...	...	...	...	4 1 0	4 0 0	3 8 0	3 11 9	3 10 0	3 2 0
5	Chittagong ...	4 0 0	4 0 0	3 12 0	...	...	...	3 12 0	3 12 0	4 8 0	3 5 6	3 4 0	3 10 10
6	Patna ...	2 7 6	Red. 2 8 0	2 12 0	1 14 6	2 1 6	2 2 7	4 0 0	4 0 0	3 12 11	2 9 9	2 9 9	3 5 4
		2 14 0	White. 2 14 0	2 15 4									
7	Balabore ...	3 12 0	3 12 0	3 12 0	3 12 0	3 12 0	3 12 0	3 12 0	3 12 0	3 12 0	3 0 0	3 0 0	2 14 0
8	Puri ...	4 12 0	3 12 0	4 13 0	...	...	...	5 0 0	5 0 0	5 5 4	3 4 0	3 0 0	3 13 0
9	Cuttack ...	3 10 0	3 0 0	4 4 0	...	...	...	3 10 0	3 10 0	4 10 0	3 0 0	3 0 0	3 8 0

Calcutta,  
The 4th July, 1893.

ngal on the 30th June, 1893.

PRICES PER MAUND																		
JOWAR OR CROZUM. (Sorghum Vulgare.)			BAJRA OR GUMBU. (Pennisetum typhoidesum.)			ZE.	ARHAR OR THUR, CADJAN PRA. (Cajanus indicus.)			FIREWOOD.			SALT.			MARTS.		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.			
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.			
2 0 0	2 0 0	2 5 9	...	...	2 14 0	..	2 0 0	2 0 0	2 5 9	0 7 0	0 7 0	0 6 0	3 13 0	3 13 0	3 4 6	Calcutta.		
...	...	...	...	...	...	..	...	...	...	0 6 6	0 6 6	0 8 0	3 8 0	3 8 0	3 7 0	Sirajganj.		
...	...	...	...	...	...	..	2 1 0	2 1 0	2 10 0	0 5 0	0 5 0	0 5 0	3 9 0	3 9 0	3 11 0	Dacca.		
...	...	...	...	...	...	..	3 4 0	3 4 0	4 4 0	0 6 0	0 6 0	0 8 0	3 10 0	3 10 0	4 0 0	Narayanganj.		
...	...	...	...	...	...	..	...	...	...	0 6 0	0 6 0	0 5 0	4 0 0	4 0 0	4 4 0	Chittagong.		
13 01	11 92	0 9	...	...	...	4 0	1 11 9	1 11 9	1 14 5	0 5 0	0 5 0	0 5 0	3 10 0	3 10 0	3 12 0	Patna.		
...	...	...	...	...	...	..	3 10 0	3 10 0	...	...	...	...	3 10 0	3 10 0	3 10 0	Balasore.		
...	...	...	...	...	...	..	2 8 0	2 5 0	2 15 0	0 8 0	0 8 0	0 8 0	3 12 0	3 8 0	3 8 0	Puri.		
...	...	...	...	...	...	..	2 0 0	2 2 0	3 0 0	0 8 0	0 8 0	0 8 0	3 8 0	3 8 0	4 6 0	Cuttaek.		

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H. H. RISLEY,  
Secretary to the Govt. of Bengal.

# Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.			STATION OBSERVATIONS.										
DISTRICT.	Representative station.	Mean barometric height, 8 A. M. reduced to 32°.	AIR PRESSURE.			WIND.		TEMPERATURE.					
			Mean reduced to sea-level and constant gravity, lat. 45°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.
ORISSA.	Puri	20° 020	20° 584	—	WSW	243	88° 7	20th June	70° 6	20, 27 June	86° 2	78° 2	82° 7
	Gopalpore	20° 032	20° 583	+005	SSW	367	87° 7	28th ..	76° 8	1st July	86° 8	78° 4	82° 6
	False Point	20° 026	20° 588	+030	SW	302	91° 5	27th ..	73° 1	25th June	80° 1	77° 0	81° 5
	Cuttack	20° 550	20° 572	+010	SW	88	91° 2	30th ..	75° 8	30th ..	87° 2	77° 4	82° 3
	Balasore	20° 558	20° 560	+003	SW	180	88° 4	26, 29 ..	74° 8	27, 30 ..	85° 8	76° 4	81° 2
SOUTH-WEST BENGAL.	Midnapore	20° 463	20° 558	—004	Sly	106	91° 3	20th ..	75° 1	27th ..	87° 0	77° 2	82° 1
	Calcutta	20° 586	20° 553	—005	SSW	134	87° 1	29th ..	76° 2	25th ..	84° 7	77° 6	81° 2
	Saugor Island	20° 592	20° 561	+009	SSW	501	57° 2	25, 28, 29, ..	77° 0	30th ..	85° 1	78° 6	81° 8
	Howrah	20° 595	20° 540	—015	Sly	180	89° 8	20th ..	76° 2	25, 30 ..	86° 2	77° 5	81° 0
	Krishnagar	20° 571	20° 554	—026	SSE	174	87° 5	20th ..	76° 9	25, 26 ..	85° 4	77° 8	81° 6
NORTH BENGAL.	Burdwan	20° 504	20° 540	—008	SEly	113	90° 1	20th ..	77° 2	30th ..	86° 7	78° 8	82° 5
	Raniganj	20° 501	20° 543	—011	Variable	102	91° 7	25, 29 ..	73° 4	20th ..	89° 0	75° 1	81° 8
	Bankura	20° 286	20° 531	—004	Variable	97	90° 1	25, 29 ..	76° 6	27th ..	87° 7	77° 1	82° 4
	Berhampore	20° 527	20° 542	—022	Variable	96	89° 6	20th ..	75° 8	30th ..	85° 4	77° 8	81° 6
	Sirajganj	20° 571	20° 567	—022	SEly	120	87° 1	20th ..	74° 7	25th ..	84° 9	70° 1	80° 5
EAST BENGAL.	Bogra	20° 545	20° 538	—008	NE	195	86° 2	20th ..	75° 2	25, 26, 30 ..	84° 2	75° 7	81° 0
	Rajshahi	20° 525	20° 544	—010	SEly	111	87° 1	25, 29 ..	74° 1	25th June	85° 7	78° 9	80° 8
	Malda	20° 523	20° 535	—	SE	111	91° 6	25th ..	75° 5	25th ..	87° 7	77° 6	82° 6
	Dinajpur	20° 501	20° 577	—023	Ely	106	82° 6	26th ..	76° 2	29th ..	86° 3	77° 0	82° 7
	Rangpur	20° 511	20° 587	—060	Variable	103	81° 8	25th ..	75° 2	30th ..	87° 0	76° 8	82° 3
NORTH BIHAR.	Jaipalguri	20° 360	20° 605	—011	SE	83	91° 9	25, 27 ..	74° 1	29th ..	88° 8	75° 7	82° 3
	Darjeeling	22° 878	—	—008	NEly	134	70° 1	27th ..	55° 6	30th ..	65° 6	56° 5	60° 4
	Ghatoug	19° 000	—	—	SEly	51	55° 4	28th ..	56° 1	25th ..	53° 2	37° 7	46° 4
	Chittagong	20° 002	20° 036	—011	Sly	154	84° 7	29th ..	74° 1	27th ..	82° 2	75° 2	78° 7
	Chittagong Hill Tracts	Demagiri	20° 607	20° 565	—031	Calm	121	86° 8	25th & 29th June.	73° 9	28th ..	85° 2	76° 1	80° 4
SOUTH BIHAR.	Naokhal	20° 003	20° 593	—020	SEly	210	84° 5	1st July	75° 3	26, 27 ..	82° 0	76° 3	79° 2
	Far												

SUPPLEMENT TO THE CALCUTTA GAZETTE, JULY 5, 1893.

for the week ending Saturday, the 1st of July 1893.

DISTRICT OBSERVATIONS.										DISTRICT.						
Variation from normal mean.	Mean 8 A.M. temperature.	Average humidity at 5 A.M.	Average cloud amount at 5 A.M.	Rainfall of week at observing station.	OF WEEK.				RAINFALL.							
					Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Since 1st of month.			Since 16th May 1893.				
									Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.		
-	82.0	87	8.0	0.40		3.43		2.87		0.61			10.13			Puri.
-1.4	81.2	86	5.7	0.11												
-2.5	81.0	89	8.0	3.06												Outlack.
-3.6	81.2	79	8.7	2.51		3.50		3.11		0.60			11.01			Balasore.
-3.8	80.5	90	6.1	4.25		2.83		3.07		0.34			10.08			Midnapore.
-3.8	80.5	88	6.0	6.00	5.27	2.20	3.00	3.13	0.01	0.20	-0.19	34.71	11.50	+23.21		
-3.0	80.3	91	9.7	7.30	6.79	2.30	5.00	3.46	0.11	0.34	-0.23	29.12	12.84	+16.28		
-3.3	81.4	90	9.3	3.82												24 Parganas.
					8.26	1.99	3.50	3.43	0.00	0.22	-0.22	33.18	11.31	+20.37		Howrah.
					7.31	2.12	4.00	3.45	0.79	0.31	+0.45	29.71	11.94	+17.77		Hooghly.
-4.0	80.0	89	0.1	4.87	5.80	1.73	5.00	3.08	0.06	0.12	-0.06	26.73	13.25	+13.48		Nadia.
-3.3	81.1	92	9.7	3.04	8.02	2.37	6.00	3.85	0.30	0.36	+0.03	30.57	10.14	+14.43		Khulna.
-3.0	80.9	85	0.4	3.02	4.56	2.07	5.20	3.47	0.44	0.17	+0.27	24.85	15.05	+9.80		Jessore.
-4.9	79.8	80	2.5	5.90												
-4.3	79.0	89	8.8	7.40	7.10	2.05	4.25	3.61	0.06	0.31	-0.25	28.32	13.42	+15.90		Sankura.
-3.5	78.9	95	9.7	5.67	4.28	2.00	5.00	3.30	0.28	0.30	-0.02	18.98	12.59	+6.39		Birbhum.
-3.1	78.0	96	10.0	5.18				3.00		0.16			12.27			Murshidabad.
-2.8	80.0	91	10.0	6.17	4.09	2.02	6.50	3.18	0.49	0.20	+0.29	30.56	14.97	+15.59		Pabna.
-3.4	80.7	90	8.7	6.73	2.67			5.24		0.20			17.37			Bogra.
-	80.1	91	8.7	2.83	5.94	3.07	6.00	3.29	1.22	0.37	+0.85	26.63	14.70	+11.03		Rajshahi.
-0.0	78.3	91	9.7	3.86	2.43	2.90	5.50	3.28	0.13	0.35	-0.22	16.58	14.59	+1.07		Malda.
+0.8	80.2	86	8.0	5.98	3.22	3.27	6.00	3.47	0.47	0.34	+0.13	20.95	17.84	+3.11		Dinajpur.
-0.8	80.1	91	8.7	2.83	4.41			3.47		0.69			28.70			Rangpur.
-0.8	80.1	91	8.7	2.83	5.57	6.50	4.00	4.60	3.50	0.61	+2.89	23.11	37.19	-14.08		Jalpaiguri.
-2.4	78.8	91	7.7	8.18	4.21	7.86	5.25	4.76	1.00	0.79	+0.31	27.31	40.77	-13.46		Kuch Bihar.
-2.3	79.8	91														









**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSER-  
VATIONS TAKEN IN ASSAM, FOR THE WEEK ENDING 8 A.M.  
SATURDAY, THE 1st OF JULY 1893.**

THE weather during the week in Bengal, as well as over the north of the Bay, has been influenced by the depression which, at the end of the previous week, had developed in South-West Bengal and moved into East Bengal. It remained stationary in East Bengal from the 24th to the 26th, the first day of the present week, and then, after a slight increase of intensity, began to move to the west. On the 26th the centre was between Jessore and Faridpur; on the 27th between Ranchi and Hazaribagh; and on the 28th, owing to its westward motion and the rapid recovery of pressure, all trace of it had disappeared. During these days the weather in Lower Bengal and the north of the Bay was necessarily unsettled, as the depth of the depression was considerable, defect being about '8 inch in the area of lowest pressure. But though the depression was practically in one position for about four days, and gradients were steep over the Bay, the increase of wind velocity was inconsiderable.

The quantity of rain, however, was unusually large in places, and except during the latter half of the week, when only very partial showers fell in Orissa and South-West Bengal, the rainfall was general in all districts. The heaviest rainfall occurred in East and South-West Bengal and Chota Nagpur during the formation and passage of the depression. In Singhbhum and Manbhum especially the falls were very heavy, and the average for the whole of Chota Nagpur is two and a half times the normal.

During the westward motion of the depression pressure changes were unusually large, and by the 28th the distribution of pressure was slightly above the normal except in part of Chota Nagpur and Bihar. The rise of pressure continued almost till the end of the week. During the latter half there was excess of between '1 inch and '15 inch in Lower Bengal and the north of the Bay, so that gradients were not so steep as usual, and a period of calm weather commenced, especially in the south and east of the Bay.

During these last three days ordinary monsoon weather prevailed in Bengal. The usual wind circulation obtained, general though not heavy rain was falling except in the south-western districts and also in the extreme north-east. In the former rain had almost stopped, while in the latter it was at times excessive. On Saturday, the 1st of July, Buxa reported 15.1 inches, and earlier in the week Kalimpong received 9.5 inches in the course of one day. The total fall for the week in Buxa is 27.42, in Kalimpong 18.19, and in Darjeeling 15.92 inches.

Pressure was below the normal everywhere in the early part of the week by amounts varying up to 3 inch. The rise commenced on the 26th in the extreme east, continued very rapidly in the eastern half of the province on the 27th, and over the whole province, but especially in Chota Nagpur, on the 28th. The rise went on slowly almost till the end of the week. Owing to the large defect in the early part of the week, mean pressure for the week is below the normal by about '02 inch.

Temperature was fairly high in Assam, North Bengal and part of North Bihar in the early part of the week, but in the other districts it remained steadily below the normal. The means for the week in the large divisions are all below the normal. Defect is small in Assam, and between 1° and 2° in North Bengal and North Bihar. In the other districts it varies from 3° in Orissa to nearly 5° in Chota Nagpur.

Rainfall has been general and at times heavy in all districts except Orissa and part of South-West Bengal. East Bengal and Chota Nagpur on an average have received more than 6 inches, South-West Bengal and North Bengal more than 4 inches, North Bihar 3.38 inches, and Orissa and South Bihar between 2 and 3 inches. The fall in Orissa is deficient by 0.5 inch, and in the other districts there is excess of variable amounts up to nearly 4 inches in Chota Nagpur and South-West Bengal.

As in the last week, a large proportion of the rain has fallen during thunder-storms, and amounts are in consequence more variable than is usual soon after the beginning of the monsoon. The very heavy falls, besides those mentioned above, are Kishanganj 15.93, Kishanganj 11.2, Kushtia 11.34, Onda 10.42, Kurseong 10.77, Pedong 11.57, Oux's Basar 11.17, Pirojpur 10.32, and Kalkapur 12.5 inches.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 1st of July 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.							RAINFALL.									
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.		Since 18th May 1893.		
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.	
Orissa ... ..	91.5	73.1	86.4	77.7	82.1	-2.9	2.74	3.24	-0.50	3.57	3.03	+0.54	0.25	0.25	23.81	10.97	
South-West Bengal ...	91.7	73.4	80.5	77.5	81.9	-3.6	6.03	2.21	+3.81	4.09	3.34	+1.35	0.28	0.24	27.00	12.88	
North Bengal ... ..	92.6	74.1	87.1	76.4	81.7	-1.5	4.22	4.07	+0.15	5.50	3.03	+1.94	0.71	0.44	23.15	23.03	
East Bengal ... ..	87.2	73.3	83.5	76.1	79.7	-3.5	6.05	3.76	+2.29	5.80	4.08	+1.72	0.31	0.38	26.26	23.13	
North Bihar ... ..	93.2	74.2	80.7	77.9	83.8	-1.3	3.37	2.47	+1.40	4.06	2.79	+1.27	0.97	0.22	10.63	10.46	
South Bihar ... ..	92.4	75.8	88.8	78.0	83.5	-3.1	2.58	2.24	+0.34	3.95	2.92	+1.03	1.43	0.32	12.59	8.25	
Chota Naxpur ... ..	89.9	69.4	83.5	72.6	78.0	-4.8	6.21	2.50	+3.71	4.26	3.54	+1.32	0.13	0.34	19.13	9.87	
Assam ... ..	94.0	74.8	87.8	76.7	82.2	-0.2											

\* Daltonganj not included.

METEOROLOGICAL OFFICE, BENGAL, C. LITTLE,  
The 4th July 1893. Offg. Meteorological Reporter to the Govt. of Bengal.

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 25th June to 1st July 1893.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.						HYGROMETRY.			Rainfall, past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
June	25th	29.442	81.7	87.5	11.7	75.8	81.1	79.5	.987	78.6	93	0.86
"	26th	.388	79.1	82.9	7.6	75.3	78.2	78.0	.956	77.8	99	5.86
"	27th	.527	81.7	87.0	10.7	76.3	81.4	79.9	.953	77.9	89	1.60
"	28th	.665	83.1	89.5	12.9	76.6	84.6	81.5	1.036	80.3	87	...
"	29th	.707	82.1	84.9	5.6	79.3	83.6	81.5	1.049	80.7	81	0.04
"	30th	.743	82.1	86.8	9.5	77.3	84.6	81.5	1.036	80.3	87	0.23
July	1st	.731	82.9	88.0	10.2	77.8	85.4	81.8	1.015	79.7	83	0.01

The mean 10 A.M. pressure of the seven days ... .. Inches.  
29.600

The mean temperature of the seven days ... .. 81.8

The extreme variation of temperature ... .. 14.2

The maximum temperature ... .. 89.5

The mean 10 A.M. relative humidity of the seven days ... .. %  
90

The total fall of rain from 25th June to 1st July 1893 ... .. Inches.  
8.60

The daily mean temperatures are the crude means of maximum and minimum temperatures.

J. H. GILLILAND,  
For Meteorological Reporter to the Govt. of India,  
METEOROLOGICAL OFFICE, INDIA,  
The 3rd July 1893.

Results of the Meteorological Observations taken at the Alipore Observatory from  
25th June to 1st July 1893.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
June	25th.	154.5	1.9	29.391	80.5	86.2	9.8	76.4	78.2	0.937	77.3	90	WNW and W by S	169	0.84	Chiefly cloudy, o, g, d, p.
"	26th	113.7	Nil	.364	78.8	79.7	4.2	75.5	77.7	.937	77.3	95	WSW and SSW	207	5.51	Cloudy, o, g, d, p.
"	27th	147.0	3.8	.499	80.5	85.7	8.8	76.9	78.1	.932	77.1	90	SSW and S	207	0.07	Chiefly cloudy, o, g, d.
"	28th	144.6	2.3	.615	82.5	86.9	7.9	79.0	80.2	.998	79.2	90	S by W and SSW	105	0.02	Chiefly cloudy, o, g, d.
"	29th	104.3	Nil	.674	81.4	83.8	5.1	78.7	79.6	.986	78.8	92	SSW and calm	59	0.27	Cloudy, o, g, d, p.
"	30th	141.4	0.4	.689	82.1	84.1	6.6	77.5	78.4	.982	77.1	84	SSW and calm	71	0.05	Chiefly cloudy, o, d.
July	1st	144.0	6.9	.690	83.4	87.1	8.7	78.4	78.7	.919	76.7	80	SSW and SW by S	163	Nil	Partially cloudy.

The mean pressure of the seven days ... .. Inches. 29.560

The average pressure of the corresponding period for 24 years, Surveyor-General's Office ... .. 29.518

The total number of hours of bright sunshine ... .. Hours. 15.3

The maximum possible number of hours of sunshine ... .. 94.3

The mean temperature of the seven days ... .. 81.3

The average temperature of the corresponding period for 24 years, Surveyor-General's Office ... .. 84.1

The extreme variation of temperature ... .. 11.6

The maximum temperature ... .. 87.1

The highest velocity of the wind in one hour ... .. Miles. 18

The highest pressure of wind on one square foot ... .. lbs. ?

The mean relative humidity ... .. % 89

The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office ... .. 84

The total fall of rain from 25th June to 1st July 1893 ... .. Inches. 6.76

The average fall of the corresponding period for 24 years, Surveyor-General's Office ... .. 2.76

The total fall from 1st January to 1st July 1893 ... .. 49.78

The average fall of the corresponding period for 24 years, Surveyor-General's Office ... .. 21.96

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph, and from observations made at 6h, 10h, 16h and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

e, overcast; g, gloomy; d, drizzling rain; p, passing temporary showers.

N. B.—In the weekly report from 28th May to 31st June, read 7.8 for 7 as number of hours of bright sunshine on the 31st May 1893.

## Vital statistics of the Districts of Bengal for the month of May 1893.

DIVISION.	DISTRICTS.	BIRTHS.		DEATHS.										AVERAGE OF CORRESPONDING MONTHS OF PREVIOUS FIVE YEARS.		REMARKS.					
		Population under registration.	Ratio per 1,000 of population annum.	CHOLERA.	SMALL-POX.	FEVER.	DYSENTERY AND DIARRHŒA.		INJURY.	OTHER CAUSES.		TOTAL OF ALL CAUSES.		Ratio per 1,000 of population annum.							
							Number registered.	Ratio per 1,000 of population annum.		Number registered.	Ratio per 1,000 of population annum.	Number registered.	Ratio per 1,000 of population annum.		Number registered.		Ratio per 1,000 of population annum.	Number registered.	Ratio per 1,000 of population annum.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Burdwan	Burdwan	1,391,883	5,253	45.44	10	708	31	24	1,501	16.72	70	60	29	24	843	7.44	2,905	24.805	2,603	22.44	Return not required up to date.
	Bankura	1,180,513	5,586	42.96	5	704	8	06	1,176	12.95	21	12	20	21	433	5.49	1,700	18.95	1,777	20.04	
	Birbhum	757,833	3,254	45.84	131	707	03	04	1,133	17.16	135	69	14	24	613	9.43	1,805	27.12	1,690	28.70	
	Hoochly including Berhampore	2,681,516	9,045	41.16	131	707	03	04	3,502	13.06	135	69	14	24	913	4.08	4,341	21.56	4,308	20.58	
Presidency	Howrah	1,076,710	3,656	40.68	79	84	2	01	1,627	18.12	113	1,20	42	36	505	5.25	3,304	26.25	1,995	20.76	Return not required up to date.
	84 Parganas	751,211	2,578	29.48	127	904	...	...	800	11.40	175	2.88	39	60	401	6.60	1,132	23.76	1,086	18.24	
	Nadia	1,644,108	7,531	54.84	15	710	1	007	3,905	21.12	97	1.12	75	48	612	4.44	3,035	24.59	2,313	24.36	
	Jessore	1,688,827	6,039	38.28	15	710	...	...	3,216	20.28	5	0.2	86	44	383	2.28	3,857	23.40	3,024	22.92	
Bajshahi	Murshidabad	1,250,946	5,045	48.70	2	701	...	...	3,021	28.98	12	0.1	56	36	370	3.48	3,455	23.18	2,868	22.92	ditto ditto.
	Dinaipur	1,177,652	2,969	30.24	44	36	...	...	1,516	16.94	9	0.4	70	60	373	3.77	2,072	21.00	1,902	19.98	
	Mayshahi	1,555,685	5,462	42.12	...	...	1	007	3,320	24.56	2	0.1	57	36	373	3.77	2,072	21.00	1,902	19.98	
	Rangpur	1,512,336	5,045	48.70	3	702	6	0,4	4,252	27.12	4	0,3	46	34	270	3.48	4,384	29.44	2,878	26.98	
Dacca	Barisal	2,035,464	5,849	33.96	4	701	1	0,4	3,940	27.62	7	0,2	46	34	270	3.48	4,384	29.44	2,878	26.98	ditto ditto.
	Pabna	817,493	2,586	34.20	4	702	85	7,9	3,153	18.48	25	1,12	41	36	171	1.44	3,482	30.60	2,400	21.84	
	Darjeeling	1,362,392	4,627	40.68	4	702	...	...	3,153	27.78	25	1,12	41	36	171	1.44	3,482	30.60	2,400	21.84	
	Darjeeling	681,332	2,054	36.12	41	72	...	...	2,013	35.40	30	0,60	10	12	46	7,2	2,149	27.40	2,536	39.72	
Chittagong	Dacca	2,420,656	6,914	34.20	700	3,36	88	3,6	3,571	27.64	1,08	0,60	79	36	848	4,20	5,420	26.76	3,122	16.36	Complete returns not yet received.
	Fakergunge	1,707,329	6,144	40.92	178	1,08	6	0,4	3,153	27.60	24	1,12	73	48	539	3,72	4,000	28.64	2,524	16.36	
	Moulvibazar	2,183,985	6,447	35.68	411	2,28	...	...	4,502	25.40	61	2,2	118	60	1,403	7,80	6,156	34.44	4,125	26.28	
	Chittagong	1,800,167	4,590	42.48	44	3,6	20	1,12	1,889	23.98	46	1,12	86	72	180	3,56	3,910	27.00	2,576	23.88	
Pahna	Noakhali	1,609,685	3,971	47.16	93	1,08	6	0,6	1,983	23.52	16	1,12	86	72	180	3,56	3,910	27.00	2,576	23.88	Complete returns not yet received.
	Tippore	1,782,635	5,552	27.39	100	1,20	7	0,3	2,385	16.90	18	0,60	75	48	608	4,24	3,754	25.44	2,533	27.04	
	Pahna	1,769,004	3,500	26.04	98	60	77	4,8	2,689	17.76	180	1,39	54	48	608	4,24	3,754	25.44	2,533	27.04	
	Gaya	2,138,331	5,068	28.39	15	708	294	1,66	3,507	20.16	25	1,12	105	48	456	3,52	4,510	25.90	4,351	24.48	
Bhagalpur	Shahabad	2,711,445	7,218	33.24	100	3,6	3	0,08	3,883	26.28	107	1,12	139	60	899	3,00	7,010	30.96	5,890	25.29	Return not received up to date.
	Wazirpur	2,501,955	6,082	26.04	2	0,98	6	0,2	2,689	23.98	153	1,12	139	60	899	3,00	7,010	30.96	5,890	25.29	
	Barbhangs	1,507,417	4,014	33.40	36	1,12	14	1,16	2,109	23.43	211	1,12	139	60	899	3,00	7,010	30.96	5,890	25.29	
	Baran	1,868,600	4,014	33.40	36	1,12	14	1,16	2,109	23.43	211	1,12	139	60	899	3,00	7,010	30.96	5,890	25.29	
Orissa	Champaian	2,682,021	4,204	25.60	...	...	...	...	2,493	20.16	22	1,12	90	48	413	4,64	4,943	26.12	3,883	29.88	Return not received up to date.
	Monager	2,682,021	4,204	25.60	...	...	...	...	2,493	20.16	22	1,12	90	48	413	4,64	4,943	26.12	3,883	29.88	
	Bhagalpur	2,682,021	4,204	25.60	...	...	...	...	2,493	20.16	22	1,12	90	48	413	4,64	4,943	26.12	3,883	29.88	
	Purnea	1,944,658	4,918	26.24	21	719	232	1,66	3,883	23.98	29	1,12	59	24	411	3,40	4,774	25.08	4,084	28.80	
Chota Nag.	Sonthal Parganas	814,919	3,933	43.44	1	0,2	...	...	4,116	25.52	2	0,4	37	16	18	2,00	4,541	26.16	4,335	25.16	Complete returns not yet received.
	Cuttack	944,998	3,254	41.64	11	1,12	271	3,36	341	4.32	144	1,10	49	60	891	2,12	1,709	21.00	2,806	35.29	
	Puri	964,685	2,555	34.00	25	74	7	0,8	775	23.24	185	2,12	44	48	739	3,44	2,463	25.42	2,463	35.29	
	Basore	1,184,811	4,445	47.36	3	0,1	43	0,6	1,191	12.60	135	1,32	...	...	...	7,80	2,669	22.20	2,473	27.36	
Total	Manbhum	1,193,329	4,900	43.20	4	0,3	161	1,66	1,497	14.28	20	1,12	22	19	410	4,08	2,041	18.48	817	17.68	Complete returns not yet received.
	Total	55,446,476	181,087	37.20	2,446	4,8	1,762	24	100,469	20.52	2,369	3,6	2,203	36	29,107	4,06	129,305	26.59	119,675	24.48	
Average of corresponding month of previous five years		Not available, as birth registration in rural areas was only introduced from 1892.	...	...	...	...	...	...	75,916	15.48	2,385	4,8	2,195	36	14,154	2,88	119,675	24.48	...	...	
Difference + or -		...	...	...	...	...	...	...	+24,885	+5,04	...	...	...	...	...	+1,20	+9,591	+2,64	...	...	

## Vital Statistics of Towns in Bengal with a population of 20,000 and over during the month of May 1893.

DISTRICTS.	TOWNS.	Population under registra- tion.	BIRTHS.		DEATHS.										AVERAGE OF CORRESPONDING MONTH OF PRE- VIOUS FIVE YEARS.	REMARKS.					
			Number re- gistered.	Ratio per 1,000 of population.	CHOLERA.	SMALL-POX.	FEVER.		DYSENTERY AND DIARRHEA.		OTHER CAUSES.		TOTAL OF ALL CAUSES.								
							Number regis- tered.	Ratio per 1,000 of population.	Number regis- tered.	Ratio per 1,000 of population.	Number regis- tered.	Ratio per 1,000 of population.	Number regis- tered.	Ratio per 1,000 of population.			Number regis- tered.	Ratio per 1,000 of population.			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Burdwan	Burdwan	34,477	63	21.64	...	...	...	...	47	16.32	7	2.10	2	60	19	6.69	75	26.04	64	22.20	
Midnapore	Midnapore	32,354	90	27.82	48	17.40	...	...	34	14.40	6	2.16	...	...	12	4.14	52	19.32	93	30.28	
Hooghly	Hooghly and Chinsura	33,080	65	23.52	...	...	...	...	41	13.68	15	5.16	...	...	22	7.92	125	49.36	83	30.12	
Howrah	Howrah	33,852	64	23.56	63	6.48	...	...	41	13.68	11	3.60	...	...	13	4.32	73	24.00	84	27.76	
	Cossimbazar	116,606	169	18.36	...	...	...	...	74	7.56	39	3.60	...	...	37	3.72	205	21.00	139	16.52	
	Cossimbazar-Chitpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Manikiala	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Barnagar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	South Suburban	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Khorda or South Bar-	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	ackpore.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Nalhati	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Narayanpur	25,400	79	31.10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Krishnanagar	21,487	83	38.64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Baranagar	21,487	83	38.64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Murshidabad	22,115	33	14.92	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Berhampur	21,487	83	38.64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Rajshahi	21,487	83	38.64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Patna	21,487	83	38.64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Chittagong	21,487	83	38.64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Patna	21,487	83	38.64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Gaya	21,487	83	38.64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Shahabad	21,487	83	38.64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Muzaffarpur	21,487	83	38.64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Darbhanga	21,487	83	38.64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Saran	21,487	83	38.64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Chhapra	21,487	83	38.64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Monohar	21,487	83	38.64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Bhagalpur	21,487	83	38.64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Curack	21,487	83	38.64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Puri	21,487	83	38.64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Balasore	21,487	83	38.64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Lardaga	21,487	83	38.64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Total	1,277,010	2,735	21.36	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Average of the corre-	...	Complete	Average	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	sponding month of	...	figures of past five	of past five	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	previous five years.	...	years are not be-	years are not be-	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		...	available.	available.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Difference + or -	...	...	...	-402	-3.84	+9	Equal	+335	+5.04	+54	+60	-13	+94	+20	+12	+229	+2.16	...	...	

H. J. DYSON, Surgeon-Capt., F.R.C.S.,  
Offg. Sanitary Commissioner for Bengal.OFFICE OF SANITARY COMMISSIONER FOR BENGAL,  
The 1st July 1893.

Supplementary Vital Statistics of Districts and of Towns for April 1893 received too late for publication with the figures of that month on the 3rd June 1893.

Divisions.	Districts.	BIRTHS.			DEATHS.																TOTAL OF ALL CAUSES.		AVERAGE OF CORRESPONDING MONTHS OF PREVIOUS FIVE YEARS.	
		Population under registration.	Ratio per 1,000 of population per annum.		CHOLERA.	SMALL-POX.	FEVER.		DYSENTERY AND DIARRHŒA.	INJURY.	OTHER CAUSES.		Ratio per 1,000 of population per annum.											
			Number registered.	Ratio per 1,000 of population per annum.			Number regis-tered.	Ratio per 1,000 of population per annum.			Number regis-tered.	Ratio per 1,000 of population per annum.	Number regis-tered.	Ratio per 1,000 of population per annum.	Number regis-tered.	Ratio per 1,000 of population per annum.								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21				
Presidency Barrackpore Bhagalpur	24 Parganas	1,892,083	4,566	28.56	147	84	16	69	1,887	11.88	75	56	83	45	392	1.80	2,510	15.84	3,929	20.64				
	Mymensingh*	2,065,387	4,894	28.44	...	...	53	24	3,101	18.00	23	12	54	24	444	2.52	3,677	21.56	3,393	20.72				
	Shahabad	1,754,196	2,292	15.60	...	...	57	36	1,700	12.00	15	99	12	107	166	1.08	2,043	15.92	2,682	18.60				
	Sonbhat Parganas	5,700,668	11,691	24.48	171	24	128	24	6,737	14.16	113	12	149	24	912	1.80	8,236	17.28	9,487	19.80				
	Average of corresponding month of previous five years.	...	...	...	1,126	2.28	94	19	7,067	14.76	179	56	147	24	824	1.68	9,437	19.80	...	...				
	Difference + or -	...	...	...	- 935	- 9.04	+ 34	+ 19	- 310	- .60	- 66	- 24	+ 2	Equal	+ 88	+ 12	- 1,207	- 2.88	...	...				
	Total for the Province minus the figures for the district of Mymensingh, which have not yet been received.	66,915,897	163,780	32.88	...	...	...	...	94,233	16.80	3,491	56	1,821	24	20,102	3.60	124,302	22.20	153,817	27.48				
	Average of the corresponding month of previous five years.	...	...	...	20,310	5.16	1,845	24	98,928	22.44	3,731	60	1,770	24	18,134	3.24	153,817	27.48	...	...				
	Difference + or -	...	...	...	- 25,796	- 4.56	+ 132	+ 19	- 4,676	- 5.64	- 1,240	- 24	+ 57	Equal	+ 1,978	+ 36	- 29,515	- 5.28	...	...				
	24 Parganas Shahabad	Towns.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
Cossipore-Chitpur		31,423	57	21.72	2	72	...	...	15	6.64	1	56	...	...	11	4.20	29	11.04	76	26.88				
Manikata		32,865	24	8.76	1	36	...	...	21	7.56	3	1.08	...	...	...	...	27	9.84	53	19.32				
Barnagore		34,278	43	14.64	18	6.24	...	...	24	8.40	7	5.40	...	...	...	...	49	10.80	78	27.24				
South Suburban		69,642	76	13.44	13	4.8	...	...	49	8.40	6	1.32	...	...	...	...	76	12.34	90	10.32				
Shordana		35,517	44	14.76	16	5.28	...	...	27	9.00	1	1.92	...	...	...	...	49	16.42	66	20.32				
Kamati		28,724	45	18.48	10	3.66	...	...	19	7.86	3	1.20	...	...	...	...	49	16.42	66	20.32				
Naraini		20,889	41	23.40	24	13.68	...	...	23	15.96	4	2.28	...	...	...	...	41	14.56	52	27.36				
Arabi		40,905	129	35.60	...	...	...	...	77	23.68	9	2.28	...	...	...	...	163	98.28	68	27.84				
Sasaram		22,713	67	32.92	...	...	...	...	50	26.40	...	...	...	...	...	...	420	31.68	78	41.16				
Average of corresponding month of previous five years.	TOTAL	324,177	557	19.44	74	9.64	2	67	310	11.40	36	1.32	8	24	85	3.12	515	18.96	600	28.20				
	Average of corresponding month of previous five years.	...	...	...	167	6.12	9	24	301	11.04	37	1.32	9	24	77	2.76	600	22.20	...	...				
	Difference + or -	...	...	...	- 93	- 3.48	- 7	- 17	+ 9	+ 3.6	- 1	Equal	- 1	Equal	+ 8	+ 3.6	- 85	- 3.24	...	...				
	Total of towns with a population of 20,000 and over.	1,449,273	3,313	24.00	226	1.56	72	48	1,733	12.72	318	2.28	54	36	718	5.16	3,151	22.92	3,444	24.00				
	Average of corresponding month of previous five years.	...	...	...	683	5.04	131	84	1,545	11.16	283	2.04	58	36	740	5.28	2,444	24.96	...	...				
	Difference + or -	...	...	...	- 467	- 3.48	- 59	- 36	+ 218	+ 1.56	+ 35	+ .24	+ 2	Equal	- 25	- 1.12	- 283	- 3.04	...	...				
	Towns.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
	Cossipore-Chitpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
	Manikata	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
	Barnagore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				

\* Return not received up to date.

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,  
The 1st July 1893.

H. J. DYSON, Surgeon-Capt., F.R.C.S.,  
Offg. Sanitary Commissioner for Bengal.



## CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 24th June 1893,  
as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 24TH JUNE 1893.			WEEK ENDING SATURDAY, THE 25TH JUNE 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ... ..	142	20,450	283	} Return for the week does not appear to have been received in this office.		
Jute ... ..	5	2,125	44			
Firewood ... ..	56	31,650	471			
Other articles ... ..	644	1,45,800	2,074			
Total ... ..	847	2,00,025	2,872	...	...	...

## CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 1st July 1893,  
as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 1ST JULY 1893.			WEEK ENDING SATURDAY, THE 2ND JULY 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ... ..	121	33,700	484	135	49,350	775
Jute ... ..	12	5,200	87	4	1,700	13
Firewood ... ..	63	41,780	603	73	30,750	438
Other articles ... ..	868	2,38,680	3,457	784	2,10,855	3,016
Total ... ..	1,064	3,19,360	4,631	996	2,92,655	4,242

## Weekly Return of Traffic Receipts on Indian Railways.

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K.-D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for week ended 17th June 1893, on 777 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	166,706	77,610 0 0	5,20,644 0	91,630 0 0	10,780 0 0	1,80,020 0 0	27,708	24,147	51,855
Or per mile of railway ...	215	100 0 0	670 0	118 0 0	11 0 0	219 0 0	.....	.....	.....
For previous 23 weeks of half-year* ...	4,158,763	19,60,501 0 0	1,64,06,600 0	21,32,702 0 0	3,56,429 0 0	44,55,692 0 0	640,090	640,652	1,298,742
Total for 24 weeks ...	4,325,469	20,44,171 0 0	1,69,27,345 0	22,24,332 0 0	3,67,209 0 0	46,35,712 0 0	678,798	675,799	1,350,597
COMPARISON.									
Total for corresponding week of previous year ...	155,415	71,052 0 0	4,34,427 0	74,325 0 0	11,747 0 0	1,57,124 0 0	31,030	23,040	54,070
Per mile of railway corresponding week of previous year ...	200	91 0 0	559 0	96 0 0	11 0 0	188 0 0	.....	.....	.....
Total to corresponding date of previous year ...	4,085,401	19,69,303 0 0	1,41,29,946 0	19,06,233 0 0	3,36,241 0 0	42,11,777 0 0	669,784	684,921	1,354,705

\* Audited up to week ending 22nd April 1893.

† Excluding steamer earnings.

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for the week ended 17th June 1893, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	29,542	10,540 0 0	57,185 0	2,890 0 0	30 0 0	13,400 0 0	4,119	1,553	5,672
Or per mile of railway ...	236	84 0 0	457 0	23 0 0	1 0 0	108 0 0	.....	.....	.....
For previous 23 weeks of half-year* ...	742,785	2,52,568 0 0	15,09,326 0	94,431 0 0	2,670 0 0	3,49,667 0 0	81,414	40,152	130,566
Total for 24 weeks ...	772,327	2,63,106 0 0	15,66,461 0	97,321 0 0	2,700 0 0	3,63,127 0 0	85,533	47,705	1,36,238
COMPARISON.									
Total for corresponding week of previous year ...	30,010	11,114 0 0	32,252 0	2,378 0 0	50 0 0	13,572 0 0	4,119	1,553	5,672
Per mile of railway corresponding week of previous year ...	240	89 0 0	258 0	19 0 0	.....	108 0 0	.....	.....	.....
Total to corresponding date of previous year ...	740,927	2,63,661 0 0	14,34,558 0	89,977 0 0	2,149 0 0	3,52,787 0 0	80,280	48,401	137,771

\* Audited up to week ending 22nd April 1893.

## DACCA STATE RAILWAY.

Approximate Return of Traffic for the week ended 17th June 1893, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	15,304	4,830 0 0	14,251 0	1,270 0 0	100 0 0	6,200 0 0	2,457	737	3,224
Or per mile of railway ...	176	56 0 0	166 0	15 0 0	2 0 0	73 0 0	.....	.....	.....
For previous 23 weeks of half-year* ...	412,048	1,26,005 0 0	343,114 0	31,410 0 0	3,784 0 0	1,61,803 0 0	57,310	17,160	74,309
Total for 24 weeks ...	427,412	1,31,435 0 0	3,67,865 0	32,680 0 0	3,978 0 0	1,68,093 0 0	59,697	17,920	77,623
COMPARISON.									
Total for corresponding week of previous year ...	17,411	5,359 0 0	12,196 0	1,077 0 0	54 0 0	6,400 0 0	2,527	737	3,224
Per mile of railway corresponding week of previous year ...	202	62 0 0	142 0	12 0 0	1 0 0	75 0 0	.....	.....	.....
Total to corresponding date of previous year ...	405,962	1,30,985 0 0	3,69,417 0	23,964 0 0	3,694 0 0	1,67,733 0 0	60,690	17,690	78,290

\* Audited up to week ending 22nd April 1893.

## BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIRHUT STATE RAILWAY.)

Approximate return of traffic for the week ending 17th June 1893, on 756 miles open

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week on 756 miles open ...	98 700	Rs. 88 540	Mds. 3 20,010	Rs. 51,210	Rs. 12,090	Rs. 1,01,840	18,108	17,112	35,220
Or per mile of railway ...	131.88	50 98	402 98	67 74	15 90	134 71	...	...	...
For previous 23 weeks of half-year* ...	2,390,325	9,81,850	1 10,70,337	15 99,306	3 05,390	28,86,006	312,346	446,847	759,093
Total for 24 weeks ...	2,420,025	10,20,990	1 14,30,347	16,50,570	3 17,480	29,88,446	325,414	463,959	789,373
COMPARISON.									
Total for corresponding week of previous year on 755 miles open ...	88,082	36,279	3,56,776	43,207	8,353	87,939	13,553	20,080	33,633
Per mile of corresponding week of previous year ...	116 06	48 05	472 55	57 23	11 00	116 34	...	...	...
Total to corresponding date of previous year ...	2,309,051	10,04,024	98,53,427	14,03,000	2,77,122	27,65,355	296,876	516,393	813,269

\* Includes audited figures up to 29th April 1893.

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

						Rs.	A.	P.
Approximate earnings for the week ending 17th June 1893	...	...	...	...	...	13,148	0	0
Corresponding period of 1892	...	...	...	...	...	10,943	0	0
Increase	...	...	...	...	...	2,205	0	0
Receipts per mile for the week ending 17th June 1893	...	...	...	...	...	257	12	10
Corresponding period of 1892	...	...	...	...	...	214	9	2
Increase	...	...	...	...	...	43	3	8
Receipts from 1st January to 17th June 1893	...	...	...	...	...	2,89,694	0	0
Corresponding period of 1892	...	...	...	...	...	2,89,115	0	0
Increase	...	...	...	...	...	579	0	0





APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, JULY 5, 1893.

## NOTICES TO MARINERS.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 159.

[First Publication.]

#### CHINA—PE CHILI STRAIT—MIAU TAU ISLANDS.

*Dangerous sunken rock eastward of Toki Tau.*

THE British Admiralty has given notice (No. 262 of 1893) of the existence of a dangerous sunken rock, named *Tsen leang shu*, about 30 yards in extent, with about 12 feet on it at low water, lying in the fairway among Miau tau islands, with the centre of Sha mo tau in line with Siau chu shan summit, bearing S.  $11^{\circ}$  E., and Toki tau peak (613 feet) N.  $63^{\circ}$  W., distant 3 miles.

Close around Tsen leang shu there are depths of 8 fathoms, rocky ground, and beyond, 12 to 14 fathoms over hard mud; the state of the sea and a breaking tide rip prevented the least water on it being obtained. The fisherman on Toki tau state that it is a small pinnacle rock, with not more than 12 feet on it at low water, and from appearances this statement is considered trustworthy.

Approximate position, lat.  $38^{\circ} 9' N.$ , long.  $120^{\circ} 50' E.$

(Variation  $4^{\circ}$  Westerly in 1893.)

B. P. CREAGH, Comdr., R.I.M.,

Port Officer of Calcutta.

Published for general information.

T. BUTLER,

CALCUTTA, the 3rd July 1893.

Offg. Under-Secretary, Marine Department.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 160.

[First Publication.]

#### NEW ZEALAND, SOUTH ISLAND—CHETWADE ISLANDS.

*Sunken rocks westward of Kakaho islands.*

THE British Admiralty has given notice (No. 273 of 1893) of the existence of a cluster of sunken rocks (*Hincmoa rocks*), extending about 130 yards in a north and south direction, with a breadth of 33 yards, lying with the north-west extreme of Kakaho island, bearing N.E.  $\frac{1}{2}$  E., distant  $8\frac{1}{2}$  cables, and the east extreme of Jag rocks N. by W.  $\frac{1}{2}$  W. On the north end of the cluster there is a depth of 9 feet (with 17 fathoms close northward), and on the south end 2 feet at low water.

Approximate position, lat.  $40^{\circ} 54' S.$ , long.  $174^{\circ} 4' 50'' E.$

(Variation  $15^{\circ}$  Easterly in 1893.)

B. P. CREAGH, Comdr., R.I.M.,

Port Officer of Calcutta.

Published for general information.

T. BUTLER,

Offg. Under-Secretary, Marine Department.

CALCUTTA, the 3rd July 1893.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 161.

[First Publication.]

EASTERN ARCHIPELAGO—SUMATRA, NORTH COAST.

*Sunken reefs, W.-N. Westward of "Diamant Punt."*

THE following Notice to Mariners, issued by the Vice-Admiral Commanding the Naval forces in Neth: India, No. 14, dated 1st June 1893, is republished for general information:—

The Commander of H. N. M. *Batavia* reports the existence of the following two coral reefs W.-N.-W. of "Diamant Punt"—

1. A coral patch (*Karang Minja*), about 55 yards long in a N.-N.-W. and S.-S.-E. direction, with 6 to 9 fathoms on in at low-water spring tides and 20 fathoms close around, lies with "Diamant Punt," bearing S. 70° E.; and the trees of *Pidada* S. 5° W.

Approximate position, lat. 5° 18' 2" N., long. 97° 23' 5" E.

2. A coral patch (*Karang Tenga*) with a least depth of 8 fathoms at low water spring-tides, lies with *Diamant Punt*, bearing S. 77° E. and the trees of *Pidada* S. 15° W.

Approximate position lat. 5° 17' 2" N., long. 97° 24' 4" E.

Under favourable circumstances the position of these reefs is indicated by ripples and a discoloration of the water.

Bearings true.

*Note.*—The fishermen of the locality say that there are still three sunken reefs close to *Karang Tenga*. The examination is therefore continued.

This notice affects the charts: *Nederlandsch-Oost-Indie*, blad 1, 1867; *Noordelijk gedeelte Sumatra*, 1881; *Noordkust Sumatra*, *Batoe Poetih tot Diamant Punt*, 1889, and *Noordoostkust Sumatra*, *Diamant Punt tot hoek Tamiang*, 1889.

B. P. CREAGH, *Comdr., R.I.M.*,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 3rd July 1893.

T. BUTLER,  
Offg. Under-Secretary, Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 162.

[First Publication.]

BAY OF BENGAL—HOOGLY RIVER.

*Intermediate Light-vessel.*

WITH reference to Notice to Mariners, No. 138, dated the 6th June, issued by this office it is notified that the Intermediate light-vessel will be replaced in position on the 6th instant.

From the above date the Lower Gaspar station will burn her regulation blue light.

B. P. CREAGH, *Comdr., R.I.M.*,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 4th July 1893.

T. BUTLER,  
Offg. Under-Secretary, Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 163.

[Second Publication.]

INDIA, EAST—MADRAS COAST.

*Alteration in period of flash of Arneghon light.*

THE following Notice to Mariners (No. 30, dated 7th June 1893), issued by the Acting Presidency Port Officer, Madras, is republished for general information:—

On and after the 1st January 1894, the light, which is white and revolving, showing a single bright flash every 20 seconds, will show instead a single bright flash every 45 seconds.

B. P. CREAGH, *Comdr., R.I.M.*,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 20th June 1893.

T. BUTLER,  
Offg. Under-Secretary, Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 154.

[Second Publication.]

NEW ZEALAND—NORTH ISLAND, WEST COAST.

*Kaipara harbour entrance—Lower Black beacon on North head not standing.*

THE British Admiralty has given notice (No. 249 of 1893) that the lower Black beacon on the slope of North head, eastward of the light-house, Kaipara harbour entrance, has been carried away by the encroachment of the sea; and that as the sea is still causing the hill side to fall away, no definite time can be given for its re-erection.

B. P. CREAGH, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 26th June 1893.

T. BUTLER,  
Offg. Under-Secretary, Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 155.

[Second Publication.]

CHINA SEA.

*Singapore old strait—Sarangong harbour—Spit southward of Pulo Ubin.*

THE British Admiralty has given notice (No. 258) that a mud spit, with less than 2 fathoms water on it, extends in a south-east direction from the south extreme of Pulo Ubin, north side of Sarangong harbour. From the outer end of the spit the largest (south-west) of the Batu Puteh rocks bears S. E. by E.  $\frac{1}{2}$  E., distant about 6 cables.

Approximate position, lat.  $1^{\circ} 24' N.$ , long.  $103^{\circ} 57' 55'' E.$

NOTE.—It is also stated that Sarangong harbour and approaches have shoaled considerably.

(Variation  $2^{\circ}$  Easterly in 1893.)

B. P. CREAGH, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 26th June 1893.

T. BUTLER,  
Offg. Under-Secretary, Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 156.

[Second Publication.]

CHINA SEA—GULF OF SIAM, EAST SHORE.

*Chong Samit.—Dangerous sunken rock in fairway*

THE British Admiralty has given notice (No. 256 of 1893) of the existence of a dangerous sunken rock lying in the fairway of Chong Samit, east shore of the gulf of Siam. This rock, composed of stone and coral boulders, circular in shape, and about 70 yards in extent, is stated to lie with the north point of Koh Samit, bearing N.E.  $\frac{1}{2}$  E., and Lem Ya N.N.W.  $\frac{1}{2}$  W., distant about one mile.

Approximate position: lat.  $12^{\circ} 34' N.$ , long.  $101^{\circ} 24\frac{1}{2}' E.$

(Variation  $4^{\circ}$  Easterly in 1893.)

B. P. CREAGH, Comdr., R. I. M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 26th June 1893.

T. BUTLER,  
Offg. Under-Secretary, Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 157.

[Second Publication.]

INDIA, WEST—BOMBAY COAST.

*Certain buoys removed for the south-west monsoon.*

THE Commissioner of Customs, Salt, Opium, and Abkari, through the Officiating Director of the Royal Indian Marine, has given notice that the undermentioned buoys on the coast between Alibag and Vingorla have been removed for the south-west monsoon on the dates noted against them:—

Alibag buoy	...	...	on the 24th May 1893.
Bankot (inner and outer) buoys	...	...	20th "
Ambulgad reef buoy	...	...	21st "
Chaldea Rock buoy	...	...	19th "
Malwan (outer) Rock buoy	...	...	16th "
" harbour buoys	...	...	27th "
Johnstone Castle buoy	...	...	31st "

B. P. CREAGH, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

T. BUTLER,

CALCUTTA, the 26th June 1893.

Offg. Under-Secretary, Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 158.

[Second Publication.]

AUSTRALIA—BRISBANE RIVER.

*Tide signals at Pile light-house.*

THE Portmaster, Brisbane, has given notice (No. 19 of 1893) that on and after Wednesday, 17th May, the original Code of Tide Signals at the Pile Light-house, as contained in the Local Harbour Regulations, will be restored, replacing the one now in use there.

The depth shown by the original code is the tidal rise added to 14 feet, and that depth now exists between the Bay and the Powder Magazine. From the latter point upwards the available depth is 5 feet 6 inches less than the above.

It is anticipated that by the end of June navigation will be completely restored, and that there will be a depth of 14 feet of water available, in addition to the tidal rise, as far as the Town Reach.

B. P. CREAGH, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

T. BUTLER,

CALCUTTA, the 26th June 1893.

Offg. Under-Secretary, Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 148.

[Third Publication.]

CHINA SEA—PHILIPPINE ISLAND—LAMON BAY.

*Reef north-east of Palupari islet.*

THE British Admiralty has given notice (No. 242 of 1893) that information has been received through the Board of Trade of the existence of a coral reef (*Penshaw reef*) on which the British barque *Penshaw* was wrecked in February 1893, lying on the eastern shore of Lamon bay, with Palupari islet, bearing S.W.  $\frac{1}{2}$  S., distant 3 miles.

Approximate position, lat. 14° 14' N., long. 122° 2' E.

(Variation 1° Easterly in 1893.)

B. P. CREAGH, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

T. BUTLER,

CALCUTTA, the 19th June 1893.

Offg. Under-Secretary, Marine Department.



## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 149.

[Third Publication.]

## BAY OF BENGAL—MERGUI ARCHIPELAGO.

*Pak Chan river entrance—Depth in channel, &c*

THE British Admiralty has given notice (No. 243 of 1893) that in the entrance channel of Pak Chan river the depth eastward of Round island is only about 3 fathoms at low water; also that Goh Phi buoy was not in position, and that the light on Goh Phi islet (*fixed white*) is only occasionally shown

Approximate position of Goh Phi light, lat.  $9^{\circ} 58' N.$ , long.  $98^{\circ} 35' E.$

B. P. CREAGH, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 19th June 1893.

T. BUTLER,  
Offg. Under-Secretary, Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 150

[Third Publication.]

## MALACCA STRAIT, MALAY COAST—JUNKSEYLOON, EAST COAST.

*Shoal in fairway—Puket harbour.*

THE British Admiralty has given notice (No. 244 of 1893) that a shoal, with  $2\frac{1}{2}$  fathoms water on it, lies in the fairway of Puket or Tongka harbour, with the east extreme of Goh Tapanjai, bearing S.S.E., distant  $3\frac{1}{2}$  cables.

(Variation  $3^{\circ}$  Easterly in 1893.)

B. P. CREAGH, Comdr., R.I.M.,  
Port Officer of Calcutta

Published for general information.

CALCUTTA, the 19th June 1893.

T. BUTLER,  
Offg. Under-Secretary, Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 151.

[Third Publication.]

## BAY OF BENGAL—COROMANDEL COAST.

*Date of exhibition of new Madras light postponed.*

IN continuation of Notice to Mariners (No. 33, dated 14th February last), issued by this office, the Presidency Port Officer, Madras, has given further notice, that the date of exhibition of the new Madras light has been postponed from the 1st July 1893 until further notice

B. P. CREAGH, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 19th June 1893.

T. BUTLER,  
Offg. Under-Secretary, Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 152.

[Third Publication.]

## INDIA, WEST—BOMBAY COAST.

*Certain buoys removed from their positions for the monsoon.*

THE Commissioner of Customs, Salt, Opium, and Abkari, through the Director of the Royal Indian Marine, has given notice, that the undermentioned buoys on the coast of North Kanara have been removed from their positions for the south-west monsoon on the dates noted against them :—

Murdeshwar buoy	...	...	on the 11th June 1893.
Bhalkal	"	...	" 19th " "

B. P. CREAGH, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 19th June 1893.

T. BUTLER,  
Offg. Under-Secretary, Marine Department.





# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, JULY 12, 1893.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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### INTERNATIONAL EXHIBITION OF INDUSTRY, SCIENCE, AND ART, QUEEN'S DOMAIN, HOBART, TASMANIA, 1894-95.

No. 2407 Mis.

The following is published for general information.

REVENUE DEPARTMENT,  
Mis.  
The 11th July, 1893.

H. H. RISLEY,  
Secretary to the Govt. of Bengal.

No. 1893  
41

*Extract from the Proceedings of the Government of India, in the Revenue and Agricultural Department (Exhibitions), dated Simla, the 16th June 1893.*

Read the following :—

Prospectus of the International Exhibition of Industry, Science, and Art, Queen's Domain, Hobart, Tasmania, 1894-95.

INTERNATIONAL EXHIBITION OF INDUSTRY, SCIENCE, AND ART,  
QUEEN'S DOMAIN, HOBART, TASMANIA, 1894-95, UNDER THE IMMEDIATE PATRONAGE OF THE GOVERNMENT OF TASMANIA.

PRESIDENT:

THE HON. WM. MOORE, M.L.C.  
(President of the Legislative Council.)

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PUBLIC BUILDINGS, MACQUARIE STREET, HOBART.

## PROSPECTUS.

It has been decided to hold an International Exhibition in Hobart during the summer of 1894-95, and the Government of Tasmania has been pleased to grant their official patronage to the undertaking.

The proposal has been taken up by the people of Tasmania and the adjacent Colonies with such general approval that the necessary capital has been most readily subscribed.

The City of Hobart is most favourably situated. The Colony of Tasmania has a population of 150,000, and with the neighbouring Colonies the total population numbers about 4,000,000 inhabitants. Launceston and other centres are within a few hours by rail. The Australian Colonies are easy of access by steam, and the tourists' routes to all places of interest radiate from Hobart.

The objects of the Exhibition are to promote and foster industry, science, and art by inciting the inventive genius of our people to a further improvement in arts and manufactures, as well as to stimulate commercial enterprise by inviting all nations to exhibit their products both in the raw and finished state. Samples of the products, for which this and the other Australasian Colonies have become famous, will be exhibited with a view to increase the development of their natural resources.

Similar and more varied exhibits may be expected from Great Britain, the Continent of Europe, America, India, Canada, the Cape, and other Colonies, to which the Government of Tasmania have forwarded an official invitation to grant their substantial support to the undertaking.

A Fine Art Section will form an important and attractive department of the Exhibition. For the accommodation of the art treasures and historical objects a special block of the building will be reserved, and the most ample precautions will be taken for the security of valuable property lent for the purposes of the Exhibition.

Two sections, *viz.*, the Women's Industrial and the Artisan Section, will be particular features. Special arrangements will be made for the management of these.

The site which has been granted by the Government for the Exhibition buildings covers about eleven acres. It is one of exceptional beauty and convenience, being that portion of the Queen's Domain adjoining the Battery and the Central Railway Station.

The buildings which it is proposed to erect will be constructed according to plans prepared by competent architects. The ornamental flower plots, shrubberies, fountains, etc., will be enclosed in the Exhibition grounds, where musical promenades and other entertainments will be provided for the enjoyment of visitors.

The situation of the Exhibition buildings is specially convenient of access for Exhibitors by means of the lines of rail which can be made use of day or night for the passage of railway trucks. Heavy goods can be delivered at a minimum cost and with the least possible amount of risk. In addition to this, the port of Hobart offers a cheap and ready means for the receiving and delivery of all sea-borne goods.

It is intended to afford full postal, telephonic, telegraphic, and banking facilities within the Exhibition buildings, so that all necessary business may be conducted by Exhibitors and others without leaving the premises.

The whole arrangements are in the hands of a powerful Directorate, and everything will be done to facilitate the work of Exhibitors, and minimise their outlay.

### REGULATIONS FOR EXHIBITORS.

1. An International Exhibition of Industry, Science, and Art, under the immediate patronage of the Government of Tasmania, will be held in Hobart in 1894-95.
2. The Exhibition will be opened on the 16th day of November 1894, and will continue open during the day and evening for a period of about six months.
3. The principal objects to be exhibited are comprised in the accompanying classification, which must not be considered to be exhaustive.
4. Certificates of merit will be awarded by competent juries in every section, special certificates being given for exhibits showing superlative merit.
5. Charge will be made for space, except in special cases, to be determined by the Directors. The charge for space inside the building will be 2s. per square foot, with a minimum charge of £2 10s. Space in main avenues will be charged extra according to position; and wall space, which must be mentioned when making application, will be charged according to location. In all cases the amount of space money must accompany the Application Form, and no exhibits can be admitted unless all payments for space have been made. Spaces not occupied within fourteen days previous to the opening of the Exhibition will be otherwise allotted, and all payments made in respect thereof absolutely forfeited. Exhibitors will have to pay all expenses of conveying, delivering, arranging, fixing, and removing their exhibits, and also the cost of the erection of all fixtures, screens, and counters when required; and they must personally, or by a representative, superintend the transmission, reception, unpacking, installation, and (at the close of the Exhibition) the removal of their goods. The Executive Committee reserve to themselves the right of doing whatever may be considered necessary at the expense of the Exhibitor, unless this regulation is strictly complied with. Should any goods be deposited in the Exhibition premises during the absence of the Exhibitor or his representative, the Directors will not be responsible for any loss or damage from whatsoever cause arising.
6. Motive power, steam, gas, or water, will be supplied by the Directors at cost price and subject to certain regulations. Exhibitors requiring such motive power must fill up the Special Application Form which has been prepared for that section, and which will be supplied on application. Exhibitors requiring counters, shafting, pulleys, and belting must supply them at their own expense.
7. Schedules and Applications for Space may be had from the Secretary or any of the Official Agents. These must be filled up and returned on or before the 1st of September 1894 to ensure the exhibits being entered in the Official Catalogue.
8. The nature of the articles which it is proposed to exhibit must be fully specified in the Form of Application for Space, and no article which is not clearly described in the Application Form will be allowed in the Exhibition without the special permission of the Directors.
9. The Directors reserve the right to refuse any exhibit without stating any reason for so doing.
10. Foreign and Colonial Commissioners or Official Agents are invited to communicate with the Secretary. The Directors will place at their disposal all information, plans, or documents that may be useful to them.
11. Applicants for space from countries in which no Commissioner or Official Agents have been appointed will correspond direct with the Secretary.
12. The Directors will endeavour to obtain from the various railways, carriers, and steamship companies special terms for the conveyance of Exhibitors' goods to and from the Exhibition, and these arrangements will be communicated to intending Exhibitors.
13. All packages containing goods for the Exhibition must have painted on two sides

the distinctive mark



with the name and address of the Exhibitor. Labels

for this purpose will be supplied to each Exhibitor applying for same.

14. Packages from foreign countries must likewise have painted on two sides the

distinctive mark



They must also be marked in [such a way as to show  
FOREIGN.

distinctly the name of the Exhibitor and the country from whence they came.

15. No case, counter, platform, screen, or partition, must (without special permission) exceed the following dimensions:—

Show cases and partitions ...	...	...	10ft. above the floor.
Counters ...	...	...	2ft. 6in. " "
Platforms ...	...	...	1ft. " "

16. Exhibitors may erect railings around their stands, and provide canopies, subject to approval; in every instance these railings and canopies must be within the area of the space allotted. In the case of machinery in motion, it is imperative that it be sufficiently railed.

17. The flooring must not be out, altered, removed, or strengthened, except by sanction of the Executive Committee, and at the expense of the Exhibitor.

18. No Exhibitor will be permitted to display exhibits in such a manner as to obstruct the light, or project beyond the space allotted, or impede the view along the open spaces, or occasion injury or inconvenience to other Exhibitors.

19. In order to ensure uniformity of decoration, no Exhibitor will be allowed to put up flags, banners, or other kind of decoration without permission; and for covering counters, screens, or partitions a uniform material will be selected, which may be bought by Exhibitors at the building.

20. All signs or name boards, which must be new and clean and of approved size, must be placed to the satisfaction of the Executive Committee, and must in no case interfere with the lighting. They must be black or maroon with gold letters.

21. All hand-bills, circulars, etc., connected with exhibits, and intended for gratuitous distribution in the Exhibition, must be printed at the Exhibition by the party to whom that special privilege has been granted by the Directors.

22. Cases must be unpacked immediately on arrival, under the supervision of the officers of Her Majesty's Customs, and all empty cases removed by the Exhibitors or their Agents. The Directors cannot accept any responsibility with reference to empty cases, which must be at once removed from the buildings at the expense of the Exhibitors.

23. Exhibitors will be required to provide all necessary attendance, and to keep their stands and exhibits properly cleaned and in good order during the whole period of the Exhibition. The Directors reserve the right to impose a penalty for a breach of this regulation, and to order the removal of any attendant whose behaviour they consider unseemly.

24. No Exhibitor will be allowed to transfer any portion of the space allotted to him, or to allow any other than his own duly admitted exhibits to be placed thereon, except by permission of the Directors.

25. All goods must be exhibited in the name of the individual or firm signing the Application form.

26. Exhibitors are requested to mark the selling price of all articles exhibited for the information of visitors, to whom they may explain their exhibits; but they will in all cases be forbidden, unless special permission in writing has been obtained from the Directors, to invite or to allow visitors to purchase goods for removal at the time of purchase, the Exhibition being intended for the purpose of display. Orders can be taken within the Exhibition, but goods must be delivered from establishments outside. Special regulations will be made for perishable articles or goods manufactured in the Exhibition.

27. No exhibit, or part thereof, can be removed before the close of the Exhibition without the special permission of the Executive Committee. Exhibits not removed within fifteen days after the close of the Exhibition will be warehoused at the cost and risk of the owners, and whatever may remain after three months will be sold by auction, and the proceeds applied to defray expenses.

28. No goods will be received prior to the 1st of September 1894 without the special permission of the Directors, nor after the 1st of November, but arrangements may be made for motors, heavy machinery, boilers, or any exhibit requiring under-building.

29. Special care will be required in cases where fire or gas is used by Exhibitors, and a responsible officer will be appointed to carry out the injunctions of the management in this respect. Exhibitors will require to effect their own insurance on their exhibits.

30. No explosives, or any substance which, in the judgment of the Directors are dangerous, will be admitted, but they may be represented by models.

31. Spirits, oils, corrosive substances, and generally all substances which might spoil other articles or inconvenience the public, can only be exhibited in solid and suitable vessels.

32. The Directors reserve to themselves the right of examining or testing any of the exhibits. If any damage or injury shall be occasioned during the Exhibition by any exhibited machine, implement, or article to any visitor or other person, then the Exhibitor to whom such machine, implement, or article may belong shall be responsible for in the first instance, and shall besides indemnify and hold harmless the said Directors from or against all actions, suits, expenses, and claims on account or in respect of any such damage or injury which may be so caused.

33. No article exhibited may be copied, photographed, drawn, or reproduced in any manner without the special permission of the Exhibitor and of the Directors.

34. Photo. passes will be issued to Exhibitors whose exhibits will need daily persons attention, and to a reasonable number of attendants. If these passes be used by any but those to whom they are issued, they will be immediately cancelled.

35. The Directors reserve to themselves the sole right of compiling and printing a Catalogue of Exhibits under regulations which will be duly notified.

36. The Directors do not undertake any responsibility for damage or loss, however caused.

37. The right to alter, amend, add to, or cancel any of these rules is reserved by the Directors.

38. All who become Exhibitors shall be held by so doing to signify their compliance with the whole of these regulations, together with such other regulations as the Directors may issue from time to time.

39. The Directors reserve the right to remove the exhibits and cancel the admission ticket of any one who does not conform with the regulations.

40. The Directors reserve the power to remove any exhibit from one part of the building to another should it in their judgment be incongruous or out of place.

### CLASSIFICATION OF EXHIBITS.

The following are the headings of the Classification :—

- |       |  |
|-------|--|
| GROUP | I.—Fine Arts (including Photography, Engravings, etc.).  |
| "     | II.—Music and Musical Instruments.   |
| "     | III.—Education and Apparatus for Physical Training.  |
| "     | IV.—Furniture, Decoration, Fancy Goods.  |
| "     | V.—Pottery and Glass.  |
| "     | VI.—Jewellery, Clocks, Watches, and other Time-keepers.  |
| "     | VII.—Paper, Printing, Bookbinding, and Stationery.   |
| "     | VIII.—Textile Fabrics, Leather, India-rubber Goods, Clothing.  |
| "     | IX.—Food, including Drinks.  |
| "     | X.—Chemistry, Apparatus and Processes, Philosophical Instruments.  |
| "     | XI.—Electricity.   |
| "     | XII.—Gas and Lighting other than Electricity.  |
| "     | XIII.—Heating and Cooking Apparatus.   |
| "     | XIV.—Cutlery, Ironmongery, Firearms, Military Weapons.   |
| "     | XV.—Road Carriages, Bicycles, Tricycles, Ambulance.  |
| "     | XVI.—Machinery, Machine Tools, Hydraulic Machines, and Machines for raising Heavy Weights; Elements of Machines; Furnaces. |
| "     | XVII.—Prime Movers, and means of distributing their Power; Railway Plant.  |
| "     | XVIII.—Naval Architecture and Engineering.   |
| "     | XIX.—Civil Engineering, Construction, and Architecture, Sanitary Appliances, Aeronautics, etc.                             |
| "     | XX.—Mining and Metallurgy, Minerals, Quarrying and Fuel.   |
| "     | XXI.—Agriculture, Horticulture, Arboriculture.   |
| "     | XXII.—Fisheries.   |
| "     | XXIII.—Women's Industries.   |
| "     | XXIV.—Artisan Section.   |

N. B.—In Groups I, XXIII, and XXIV the space will be free. In all other groups the charge will be at the minimum rate of 2s. per foot.

#### GROUP I.

##### FINE ARTS.

- |       |                              |
|-------|------------------------------|
| Class | 1.—Sculpture.                |
| Class | 2.—Oil paintings.            |
| Class | 3.—Water-colour drawings.    |
| Class | 4.—Etchings and engravings.  |
| Class | 5.—Works in black and white. |
| Class | 6.—Architectural drawings.   |
| Class | 7.—Photographs.              |
| Class | 8.—Archæology.               |
| Class | 8½.—Philatology.             |

#### GROUP II.

##### MUSIC AND MUSICAL INSTRUMENTS.

- |       |   |
|-------|---|
| Class | 9.—Organs, harmoniums.                          |
| Class | 10.—Pianofortes.                                |
| Class | 11.—Harps.                                      |
| Class | 12.—Ancient, rare, and valuable instruments.    |
| Class | 13.—Solo, orchestral, and military instruments. |
| Class | 14.—Musical apparatus and instrument            |
| Class | 15.—Books on methods of teaching music.         |
| Class | 16.—Music, engraving, and printing.             |

## GROUP III.

## EDUCATION AND APPARATUS FOR PHYSICAL TRAINING.

- Class 17.—*Creches and Infant Schools*.—Apparatus and fittings; games, toys, Kindergarten amusements; models and appliances for teaching; examples of school work.
- Class 18.—*Primary and Secondary Schools*.—Apparatus and fittings; models and appliances for teaching; text-books, diagrams, and examples; specimens of school work.
- Class 19.—*Science and Technical School Appliances*.—Apparatus and fittings for elementary trade; teaching in schools-apparatus and models for science instruction in schools; diagrams, copies, text-books, apparatus, and examples used in schools for teaching handicrafts; models, plans, and designs for the fitting up of workshops and technical schools; specimens of work done in schools.
- Class 20.—*Art, teaching*.—Apparatus, models, and fittings for art instruction; diagrams, copies, text-books; specimens of drawing, painting, modelling, designing.
- Class 21.—*Schools for the Blind, Deaf and Dumb*.—Books, apparatus, and examples of teaching; specimens of work.
- Class 22.—*Physical Training and Sports*.—Gymnastic apparatus for exercise, drill, etc.; apparatus for cricket, football, tennis, golf, curling, etc.

## GROUP IV.

## FURNITURE, DECORATION, FANCY GOODS.

- Class 23.—*Furniture and Upholstery*.—Household furniture; office and library furniture; church furniture; inlaid and carved furniture; upholstery; the nursery and accessories.
- Class 24.—*House Decoration applied to Rooms*.—Decorated and furnished rooms; japanned-ware; cornices, brackets, screens, picture-frames, mirrors, parquet flooring, and wood-panelling; wooden overmantels.
- Class 25.—*Wall Coverings*.—Wall papers; leather and canvas embossed wall coverings; wall tapestry.
- Class 26.—*Artistic and Ornamental Metal Work*.—Artistic and ornamental metal work for house decorations and furnishings; ornamental overmantels.
- Class 27.—*Marble Furniture*.—Marble furniture, staircases, overmantels; marble wall decoration.
- Class 28.—*Basket Work and Basket Furniture*.—Basket chairs, tables, and sofas; baskets for travelling purposes; baskets for house use; clothes baskets; and all other basket-ware.
- Class 29.—*Umbrellas, Parasols and Walking-sticks*.
- Class 30.—*Stained Glass for Window Decoration*.—Stained and enamelled, cut and engraved, window glass.
- Class 31.—*Fancy Articles for House Decoration*.
- Class 32.—*Brushes and Combs*.—Toilet brushes; combs of all kinds; toilet cases and bags; brushes for household use; stable and horse brushes; brooms; boot-brushing machines.
- Class 33.—*Trunks and Portmanteaux*.—Trunks and portmanteaux of all kinds; bags for travelling, outdoor, and household use; patent fastenings for trunks and bags.

## GROUP V.

## POTTERY AND GLASS.

- Class 34.—*Bricks, Tiles, Earthenware, Terra Cotta and Stoneware Architectural Pottery*.—Fire-clay goods, crucibles, pots, furnaces, chemical stoneware, plain and enamelled encaustic tiles, stoneware.
- Class 35.—*Porcelain Majolica Artistic Pottery*.—Pottery, porcelain, China earthenware for table or toilet use and for decorations; Majolica, Wedgwood, and Palissy ware; artistic pottery of all kinds.
- Class 36.—*Crown, Sheet, and Plate Glass*.—Glass used in construction and for mirrors; window glass; plate glass.
- Class 37.—*Bottle and Table Glass*.—Bottles and bottle glass; patent stoppers and patent bottles for aerated waters; chemical and pharmaceutical glassware, vials, and bottles; table glass of all kinds; cut and engraved glass.
- Class 38.—*Artistic Glass for House Decoration, Plaques, etc.*.—Decorative glass of all kinds; painted glass; cameo and intaglio in glass.

## GROUP VI.

## JEWELLERY, CLOCKS, WATCHES, ETC.

- Class 39.—*Jewellery and Personal Ornaments*.—Gold and silver jewellery and ornaments, inlaid, filigree; diamond jewellery; gems and precious stones; rings and chains.
- Class 40.—*Gold and Silver Work*.—Goldsmiths' and silversmiths' work, both ancient and modern; shields, trophies, flasks, and cups, and other samples of work; medals, dies, gold leaf.



- Class 41.—*Clocks*.—Chronometers, astronomical clocks, church and turret clocks, clocks of ancient design, clocks for household and general use; hour glasses, sun dials, metronomes, watchmen's clocks.
- Class 42.—*Time Signals*.—Methods of controlling clocks; apparatus for the distribution and signalling of time.
- Class 43.—*Watches and Chronometers*.—Machine and hand-made watches; examples illustrative of the stages of manufacture of watches and chronometers; keyless chronographs; repeating, calendar, and other forms of watches.

## GROUP VII.

### PAPER, PRINTING, AND STATIONERY.

- Class 44.—*Paper, and Materials for Manufacture of Paper*.—Paper of all kinds, wrapping, writing, drawing, printing, mounting boards, millboards, papier maché, imitation of leather and wood, etc.; tracing paper, tracing cloth.
- Class 45.—*Letter-press and other Printing*.—Specimens of printed and illustrated books; samples of type-printing by hand and machine; lithographic printing, colour printing, copper-plate printing; specimens of ruling; specimens of commercial book printing and billheads; posters and printing of same.
- Class 46.—*Book-binding*.—Book-binding in every form; samples of special designs for bindings; bound books, account books, etc.
- Class 47.—*Artist's Materials and Instruments*.—Easels, stools, palettes, palette knives, drawing boards, drawing instruments, pencils, brushes, colours and varnishes, water-bottles; new inventions in connection with the same.
- Class 48.—*Writing Materials and Stationery*.—Stationery for the desk; stationers' articles, pens, pencils, inkstands; playing cards; typewriters, manifold writers, copying presses, sealing-wax.

## GROUP VIII.

### TEXTILE FABRICS, LEATHER, INDIA-RUBBER GOODS, CLOTHING.

- Class 49.—*Raw Materials*.—Cotton, flax, jute, hemp, wool, silk.
- Class 50.—*Textile Materials*.—Woven fabrics, wire cloth, sieve cloth, asbestos fibre (spun and woven), mats and matting, cotton yarns, sheetings and shirtings, cotton fabrics, dyed and printed cottons and muslins, linen yarns and threads, linen fabrics manufactured from jute, yarns, bagging, carpeting, rugs.  
 Floorcloth, oilcloth, linoleum, yarns and worsteds, wool fabrics, broadcloth, coatings, flannel, blankets, rugs and shawls, merinoes, cashmere, serges, dress goods of wool and cotton mixture, tweeds and other woollen materials.  
 Carpets of all kinds; felted goods; printed and embossed woollen cloths; silk and silk fabrics of all kinds.
- Class 51.—*Gutta percha, India-rubber*.—Gutta-percha and India-rubber goods and manufactures; waterproof clothing.
- Class 52.—*Leather and Shoe-making*.—Leather of all kinds (except driving bands for engines); boots and shoes; trunks and bags; fancy leather work.
- Class 53.—*Dyeing and Tanning Materials*.
- Class 54.—*Felt-making and Hat-making*.—Materials used in manufacture of straw, felt, and silk hat-making; process of hat-making shown in operation; manufactured hats or caps of all kinds.
- Class 55.—*Lace-making*.—Laces of all kinds; manufactures of lace by machinery or hand.
- Class 56.—*Costumes for all Ages and Climates*.—Costumes of all kinds; clothing, ladies' mantles, caps, gloves, millinery furs, and skins; men's and youths' clothing of all kinds.
- Class 57.—*Sewing Machines, Knitting Machines, Weaving Machines not requiring power*.

## GROUP IX.

### FOOD, INCLUDING DRINKS.

- Class 58.—*Grain and Raw Materials*.—Samples of grain of all kinds; casts of vegetables, grass seeds, and other seeds; flour, oatflour, oatmeal, and all other meals; pearl barley, etc.
- Class 59.—*Manufactured Articles of Food*.—Bread, biscuits, cakes, and confectionery; mustard, gelatine, isinglass, starch, arrowroot, sugar, syrups.
- Class 60.—*Preserved Food, including Fish Products*.—Tinned meat; smoked, salted, compressed animal food; honey; tinned, dried, and compressed fruits and vegetables; food for infants; food for invalids; concentrated foods of all kinds.
- Class 61.—*Beer, Wines, and Spirits*.—Beer, ale, and porter in casks or bottled; colonial, foreign, and English wines, whisky, brandy, liqueurs, gin, rum, cordials, bitters, cider, perry; other fruit wines; apparatus for manufacture of same in coopers' works, stills, etc.
- Class 62.—*Aërated Waters, Mineral Waters*.—Soda and aerated waters; natural mineral water; manufactured mineral waters.
- Class 63.—*Coffee, Chocolate, Tea, Apparatus used in the Process of Infusion*.
- Class 64.—*Tobacco, Oigars, Cigarettes, Machinery and Appliances for Manufacture of same*.

## GROUP X.

## CHEMISTRY AND APPARATUS; PROCESSES AND APPLIANCES CONNECTED WITH APPLIED CHEMISTRY AND PHYSICS; PHILOSOPHICAL INSTRUMENTS AND APPARATUS.

- Class 65.—*Inorganic Products, Acids and Alkalies*.—Mineral, sulphuric, nitric, hydrochloric acids; ammonia and other alkalies, potassium, sodium, magnesium; printing and writing inks; bleaching agents, salts, white lead; paints and pigments, phosphorus, sulphur, selenium, bromine, iodine, kelp, charcoal; disinfectants; yeast and baking powders.
- Class 66.—*Organic Products, Coal and Wood, Tar Products, Oils, Soaps, Varnishes*.—Creosote, wood spirit, pyroligneous acids, oils from mineral, animal, and vegetable sources; refined oils; lubricating oils; candles, soaps, and detergents; varnishes, resins, dyes and colours, yellow, red prussiate of potash, Prussian blue, cyanide of potassium.
- Class 67.—*Chemical Apparatus*.—Chemical apparatus of all kinds; balances, scales, and graduated beams; laboratory fittings and instruments and apparatus.
- Class 68.—*Pharmaceutical Products*, including perfumes of all kinds.
- Class 69.—*Optical Apparatus*.—Optical and thermotic instruments and apparatus; lenses and prisms; spectacles and eye glasses; field and opera glasses.
- Class 70.—*Instruments (except Naval)*.—Astronomical instruments and accessories, transits, equatorials, etc.; instruments for surveying; levelling instruments and apparatus; meteorological instruments; thermometers, barometers, hygrometers; rain-gauges, maps, weather bulletins; mathematical machines, calculating machines, viameters, pedometers; weights, measures, and weighing machines; biological instruments; spectroscopes and accessories for spectrum analysis.
- Class 71.—*Photographic Apparatus*.—Processes, gelatine, bromide, plate-making; printing processes, silver, carbon, woodbury-type, platinotype, etc.; cameras, shutters, changing boxes, slides, tents, lamps, etc.

## GROUP XI.

## ELECTRICITY.

- Class 72.—*Generators*.—Dynamoes, primary and secondary batteries; thermo-electric battery.
- Class 73.—*Conductors*.—Submarine cables and apparatus for laying them; aerial wires and underground cables, insulators, and poles; insulating and coating materials; joints and connections, pipes, tubes, troughs, electric light leads.
- Class 74.—*Testing and Measuring Apparatus*.—Galvanometers, magnetometers, dynamometers, voltmeters, current meters.
- Class 75.—*Telegraphic and Telephonic Apparatus*.—Needle instruments, A. B. C. instruments, sound instruments, Morse instruments, type printers, relays, duplex and quadruplex apparatus, keys, recording instruments, automatic transmitters, electric bells, indicators, telephones and fittings, microphones, lightning-conductors and protectors.
- Class 76.—*Electric-lighting Apparatus*.—Lamps, resistance coils, outouts, safety catches, switches, fittings for lamps.
- Class 77.—*Distribution or Utilisation of Power*.—Electric railways, electric motors, boats, trolleyes, and other conveyances driven by electricity; systems of distribution; domestic electric lighting applied to apartments.
- Class 78.—*Electric Signalling*.—Fire and burglar alarm; railway, ship, and time tables; water level and wind indicators; tell tales, electric clocks, and chronoscopes.
- Class 79.—*Electro-Thermic Apparatus*.

## GROUP XII.

## GAS AND LIGHTING (OTHER THAN ELECTRICITY).

- Class 80.—*Coal and other Gas*.—Manufacture, purification, storage, and distillation of coal gas; treatment of residue; water gas, oil gas, carburetted air.
- Class 81.—*Tests and Photometrical Apparatus*.—Chemical tests, standards of light, measurement of light.
- Class 82.—*Burners and Fittings*.—Gas fittings; burners for illuminating gas, globes and brackets, reflectors, and other methods of imparting greater light; gas meters, regulators, governors; methods of lighting gas.
- Class 83.—*Candle Holders and fittings of all kinds*.
- Class 84.—*Lamps for Oil and Spirits*.—Lamps for burning oil; safety lamps, firemen's lamps, railway lamps.

## GROUP XIII.

## HEATING AND COOKING APPARATUS.

- Class 85.—*Stoves for Coal, Gas, or Oil; Grates, Ranges, Heating Apparatus, etc.*
- Class 86.—*Cooking and Pantry Utensils*.—Tinware and enamel-ware used in cooking and storing food.

GROUP XIV.

CUTLERY AND IRONMONGERY, FIREARMS, MILITARY WEAPONS.

- Class 87.—*Cutlery and Hand-tools*.—Hand-tools and instruments of every description used by artificers; cutlery for table use; knives, penknives, scissors, razors and implements sold by cutlers.
- Class 88.—*Surgical Instruments and Appliances*.
- Class 89.—*Hardware and Hollow-ware*.—Metal hollow-ware, screws, nails, spikes, bolts, locks, and latches; hinges; pulleys for house fittings; window and door furniture, pumps and gasfitters' hardware; ship's hardware; saddler's hardware; harness fittings.
- Class 90.—*Galvanised Ironwork and Wirework*.
- Class 91.—*Pewter and Britannia Metal, German Silver, Nickel wares, Bronze, Solder*.
- Class 92.—*Ordinance, Small Arms and Weapons; also Sporting Guns*.—Heavy guns and means of working them; gun carriages and accessories; siege, field, and mountain guns; machine and automatic guns; shell and shot, fuses and detonators; guns, rifles, and pistols; swords, bayonets, gunpowder, and ammunition.

GROUP XV.

ROAD CARRIAGES, BICYCLES, TRICYCLES, AMBULANCE.

- Class 93.—*Road Carriages and Accessories*.—Pleasure and travelling carriages; cabs, omnibuses, hearses, trucks, and carts; carriage lamps; carriage fittings; methods and means of propulsion; perambulators.
- Class 94.—*Bicycles, Tricycles and Accessories*.—Cycles of every description, and fittings for same.
- Class 95.—*Saddlery and Harness*.—Horse clothing, whips, spurs; means and methods of breaking in horses; disengaging appliances for run-away horses; horse-shoes; methods of roughing horses; horse clippers; grooming apparatus.
- Class 96.—*Ambulance*.—Ambulance carriages, stretchers; aid to sick and wounded in war; aid to sick and wounded in peace; furniture and fittings for sick-room; bath chairs.

GROUP XVI.

MACHINERY, MACHINE TOOLS, HYDRAULIC MACHINES, AND MACHINES FOR RAISING WEIGHTS; ELEMENTS OF MACHINES; FURNACES.

- Class 97.—*Metal-working Machines*.—Machinery for the manufacture of rivets, nails, bolts, screws, tacks, pins, and needles; machines for planing, drilling, slotting, turning, shaping, boring, punching, stamping, and cutting-metal; wheel cutting and dividing machines; emery wheels, drills, gauges, and dies.
- Class 98.—*Steam Hammers*.—Steam, trip, and other hammers; anvils, forges, bellows.
- Class 99.—*Wood-working Machines*.—Machines for planing, sawing, turning, veneering, and grooving; machines for tonguing, cutting, moulding, stamping, carving, cask-making, cask-cutting.
- Class 100.—*Stone-working Machines*.—Machines for sawing, planing, dressing, shaping, and polishing stones; sand blast, grindstones.
- Class 101.—*Watch-making Machinery*.—Lathes and mandrills; wheel-cutting engines; machine tools used in the manufacture of watches and watch cases; also hand-tools and gauges.
- Class 102.—*Machines for Coining Metals*.—Drop-die and stamping machines.
- Class 103.—*Textile Machinery*.—Machines for the manufacture of silk goods, cotton goods, woollen goods, carpets, tapestry, jute, linen goods; lace machines; embroidery, hair, and ribbon machines; leather, boot, and shoe-making machines; machines for making buttons, rope, twine, and miscellaneous fibrous materials; floor-cloth, kemptulicon, wire cloth, and netting machines; India-rubber and asbestos machines.
- Class 104.—*Washing Machines*.—Machines for washing, scouring, ironing, drying, cleaning, and dyeing.
- Class 105.—*Paper-making Machinery*.—Washing, beating and bleaching machines; agitators, strainers, moulds.
- Class 106.—*Printing Machinery*.—Type-casting machines and apparatus for stereotyping and electrotyping; type-setting, printing, stamping, embossing, and lithographic machines; book-binding machines; paper-folding machines; paper and card-cutting machines; paper-box machines; envelope machines; wall-paper printing machines; steel pen and penoil machines.
- Class 107.—*Machinery used in the Manufacture of Glass and Pottery*.—Bricks, pottery, drain-pipes, tiles, and artificial stone machines; furnaces, moulds, and blow-pipes for making glass and glassware; machines for grinding, cutting, and polishing glass.
- Class 108.—*Cranes and Other Lifting Apparatus, Hydraulic Machines and Presses*.—Pumps and apparatus for lifting and moving liquids (air or gas); blowers and ventilators; hydraulic engines, accumulators, cranes, jacks, presses, elevators, lifts; pile-driving machines.

- Class 109.—*Sugar and Sweetmeat Machinery*.—Sugar-refining machinery; sweetmeat-making machines.
- Class 110.—*Baking and Machinery*.—Bread and biscuit or pie machinery of all kinds.
- Class 111.—*Machines for the Manufacture of Aerated Waters*.—Machinery of all kinds for the manufacture of soda and aerated waters; bottling and corking apparatus; ice-making machines.
- Class 112.—*Fire-engines and Fire-apparatus*.—Steam fire-engines; hand, chemical, compressed air fire-engines; hose, ladders, fire-escapes.
- Class 113.—*Weighing Machines for Commercial Purposes*.—Beam and scale machines; machines for weighing trucks and carts; weighing machines of all kinds (other than chemical and other scientific balances).
- Class 114.—*Furnaces for Manufacturing Purposes*.—Furnaces and moulding machines; bloom-squeezers; blowing fans; apparatus for casting metal, Bessimer, Siemens, Martin, and other processes.
- Class 115.—*Machine, Tools, and Apparatus for Mining and Extractive Arts*.—Rock drills; well and shaft boring machines; machines and apparatus for working and hauling coal; coal-washing machines; machines used for crushing, grinding, sorting, and dressing; breakers, stamps, mills, pans, screens, sieves, gigs, amalgamators, and concentrators.
- Class 116.—*Machines and Apparatus for Chemical Manufactures*.—Electroplating; paint and powder mills; soap and candle-making machinery; plant for manufacturing sulphuric and other acids.

## GROUP XVII.

## PRIME MOVERS AND MEANS OF DISTRIBUTING THEIR POWER; RAILWAY PLANT.

- Class 117.—*Steam Engines and Boilers*.—Boilers; fixed and portable steam engines; methods and means of preventing corrosion and incrustation.
- Class 118.—*Gas and Hot Air Engines, Compressed Air Engines*.—Gas engines; hot air engines; air compressors; compressed air engines; vapour engines.
- Class 119.—*Turbines, Water-wheels, Hydraulic Rams, Windmills*.—Means of utilising wave power, hydraulic rams, water-pressure engines, windmills, solar engines.
- Class 120.—*Means of Transmitting Power and Accessories of Engines and Boilers*.—Belting, pulleys, shafts, gearing, clutches, fire-feeders, smoke-consuming apparatus, valves and valve gear, steam joints, governors, injectors, pumps, bearings, lubricators, indicators, gauges.
- Class 121.—*Rails, Switches, Signalling Apparatus for Rail or Tramways*.—Crossings, turntables, communications in trams and with trams, modes of water-supply, signals and points, fixed and rolling-stock for tramways.
- Class 122.—*Brakes, Hand and Automatic*.—Screw, chain, compressed air, vacuum, steam, electrical.
- Class 123.—*Atmospheric Railways and Portable Railways*.—Rope railways and tramways; pneumatic railways.

## GROUP XVIII.

## NAVAL ARCHITECTURE AND ENGINEERING.

- Class 124.—*Ship and Boat building*.—Models of ships and vessels of all kinds; also of boats for commerce or pleasure.
- Class 125.—*Construction*.—Materials used in the construction of wood, iron, or steel vessels, armour plating, submarine armour, sternpost, etc.
- Class 126.—*Ship's Fittings*.—Masts, sails, canvas and rope, wire rigging, anchors, and chains, boat-lowering apparatus, pumping and ventilating apparatus, winches and capstans, steering gear, indicators and engine-room telegraphs, compasses, sextants, quadrants, repeating circles, ships' logs, instruments connected with ships and machinery.
- Class 127.—*Marine Propulsion*.—Marine engines, full size and in models, from their first introduction to the present time; propellers, paddles, hydraulic propulsion, shafting and gear.
- Class 128.—*Life-saving Apparatus*.—Life-boats, life-rafts, deck-seats, belts, and life-saving clothing of all kinds.
- Class 129.—*Armament*.—Heavy guns and fittings; torpedoes, torpedo catchers, machine guns.

## GROUP XIX.

## CIVIL ENGINEERING, CONSTRUCTION AND ARCHITECTURE, SANITARY APPLIANCES, AERONAUTICS.

- Class 130.—*Road-sweeping Machines*.—Rollers; apparatus for removing mud or snow; water-carts, etc.; construction and maintenance of roads and trees.
- Class 131.—*Bridges and Viaducts*.—Models, plans, apparatus used in construction; submarine construction.
- Class 132.—*Docks and Harbours*.—Plans and designs, diving apparatus, dredging machines, pile drivers, caissons; hydraulic apparatus for working docks.
- Class 133.—*Light-houses*.—Models and plans of light-houses.

- Class 134.—*House Construction and Building Materials (other than Stone).*—Fire-proof structures; materials for sanitary house construction, roofs, walls, damp courses, solid floors, cements, damp-proof wall coverings.
- Class 135.—*Water-supply and Sewerage.*—Meters, filters, water fittings, house drains; their construction and ventilation; water and earth closets; ventilators, lavatories, baths, and bath fittings.
- Class 136.—*Military Engineering.*—Models of bridges and fortifications, intrenching tools, field kitchens, field telegraphs, camp and bivouacking appliances, military clothing and accoutrements, transport arrangements, explosives for demolitions, submarine mine cases, and relative electrical apparatus, aeronautics.

## GROUP XX.

### MINING AND METALLURGY, MINERALS, QUARRYING, AND FUEL.

- Class 137.—*Coal.*—Anthracite and bituminous, with samples showing thickness of seam; bitumen, kerosine, and other oil shales; pressed coal and coke.
- Class 138.—*Building and other Stone.*—Rough, hewn, sawn, or polished stones; white, black, or coloured marbles, granite, and other ornamental stones in blocks or slabs; lithographic stones; hones, grindstones, whetstones.
- Class 139.—*Iron, Lead, Copper Ore, etc.*—Iron ores, copper and lead ores.
- Class 140.—*Pig-iron, Wrought-iron, and Steel.*—Iron and steel in pig, ingot, bars, plates, and sheets.
- Class 141.—*Lead, Copper, Zinc, Tin and Brass in Process of Manufacture.*—Lead, graphite, copper in cakes, tiles, ingots, bars; tin, zinc, antimony, bismuth, brass, gun metal.
- Class 142.—*Gold, Silver, Platinum.*—Samples of reef and alluvial gold and silver ores; gems and precious stones; collections of minerals.

*N.B.—Machinery and appliances used in the production or manufacture of the above will be placed in the Machinery section.*

## GROUP XXI.

### AGRICULTURE, HORTICULTURE, AND ARBORICULTURE.

- Class 143.—*Field Implements.*—Ploughs, cultivators, harrows, rollers, presses, spades, forks, hoes, draining tools, sowing machines for grain and other farm seeds, manual distributors, reapers, mowers, binders, root thinners and raisers, potato-planters.
- Class 144.—*Barn and Farmyard Implements.*—Traction and other agricultural engines; threshing machines; winnowers, grain and seed cleaners and dressers; hay and straw elevators; trussers, compressors, root and chaff-outters, grist mills, crop dryers, sheep dippers; barn requisites.
- Class 145.—*Dairy and Poultry Farm appliances and Bee-keeping.*—Complete working dairies; dairy appliances, implements and utensils, cream separators, churns, cheesemaking apparatus, incubators, apiarian appliances.
- Class 146.—*Farm and Dairy Produce.*—All grain, roots and seeds; dairy produce, butter, cheese, preservatives, colouring.
- Class 147.—*Agricultural Construction.*—Models, plans, and designs for farm buildings; silos, rick stands, byre and stable fittings and requisites; field and other gates, hurdles, fenceings, etc.
- Class 148.—*Manures, Cattle, Food, etc.*—Artificial manures, cattle and poultry foods, sheep dips, materials, processes, etc.
- Class 149.—*Horticulture and Floriculture.*—Ornamental trees, shrubs, coniferæ, flowers, ferns; illustrations of and materials used in floral designs, etc.; hot-houses, conservatories, vineries, garden implements, vases, flower pots, etc.; borderings for walks and flower beds, park seats, chairs, garden statuary, fountains, rustic arbours, houses, chairs, bridges, etc.
- Class 150.—*Arboriculture.*—Timber and trunks of trees, abnormal growths; specimens of barks, leaves, flowers and seeds, ship timber, shingles, laths, staves; wood for street paving; ornamental woods used in design and furniture; dye woods; preservation of timber; illustrations of planting and protecting forests; collections, illustrations, and descriptions of destructive insects.

## GROUP XXII.

### FISHERIES, INCLUDING NATURAL HISTORY BEARING THEREON.

- Class 151.—*Nets, rods, tackles, weirs, dams, passes; fish-breeding ponds and sluices; vessels for transporting ova and spawn; fish culture.*

## GROUP XXIII.

### WOMEN'S INDUSTRY.

- Class 152.—*Needlework and Knitting.*—Plain needlework; ladies' and children's underclothing; white embroidery on muslin and linen; plain knitting, fancy knitting, art embroidery.

Class 153.—*Mechanical Work*.—Straw and basket work; brush-making; filigree work; feather dressing; spinning, glove-making, flower-making, toy-making; fishing tackle and fly dressing; book-binding.

Class 154.—*Decorative Work and Furnishings, Carving on Wood, etc.*—Wall decorations; curtains, furniture screens, carved fret or painted work, brass work.

Class 155.—*Painting, Drawing and Engraving*.—Painting on fabrics, china, glass; missal painting; Christmas card and fan painting; wood and steel engraving; lithography; designs for wall and floor coverings; designs for art embroidery, etc.

#### GROUP XXIV.

#### ARTISAN SECTION.

Class 156.—Specimens of handicraft of all kinds of works executed by artisans, apprentices and pupils of Technical schools; models, drawings, carvings, castings, etc., etc.

### DONATION OF HIS HIGHNESS THE MAHARAJA SCINDIA BAHADUR OF GWALIOR FOR PRIZES.

GENERAL DEPARTMENT, EDUCATION—No. 414T.G.

*Darjeeling, the 7th July 1893.*

#### RESOLUTION.

READ—

Letter from the Director of Public Instruction, Bengal, No. 3206, dated the 6th June 1893.

The Director of Public Instruction reports that, in addition to the donation of Rs. 500 for the foundation of a prize for the benefit of the First Arts students of the Presidency College, which was acknowledged in the Government Resolution of the 17th March 1893, His Highness the Maharaja Scindia Bahadur of Gwalior has now made a further donation of Rs. 1,000, to be invested in 4 per cent. Government securities, for the award of annual prizes to the students of the institutions named below:—

- (1) Rupees 500 for an annual medal or prize to the student of the Sanskrit College who, on passing the First Arts examination, stands next in order of merit to those who obtain scholarships or other prizes;
- (2) Rupees 300 for an annual prize to a student of the Medical College, Calcutta, who obtains the highest marks at the preliminary M. B. Examination and does not get any other prize;
- (3) Rupees 200 for an annual prize to the student of the Campbell Medical School, Sealdah, who stands at the head of the first class.

2. The acknowledgments of Government are again due to his Highness the Maharaja Scindia for his liberal donation and for the interest he has displayed in educational institutions in Calcutta.

3. The heads of the respective institutions will be appointed administrators of the funds.

4. His Honour approves the proposal made by the Director of Public Instruction that in the case of the Medical College and the Campbell Medical School the donations should, for the present, be placed in the Government Savings Bank till such time as the interest accrued shall cover the premium at which Government promissory notes now sell, and thus enable the Comptroller-General to make the necessary investment.

ORDER.—Ordered that a copy of the Resolution be forwarded to the Director of Public Instruction and to the Accountant-General, Bengal, for information; also that the Government of India, Foreign Department, be requested to forward a copy, with the permission of His Excellency the Viceroy and Governor-General in Council, to His Highness the Maharaja Scindia Bahadur of Gwalior.

Ordered also that a copy of this Resolution be published in the *Calcutta Gazette*.

By order of the Lieutenant-Governor of Bengal.

H. H. RISLEY,

*Secy. to the Govt. of Bengal.*

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 8th July 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL.</b>			
Burdwan Divn.	1 Burdwan July 8, '93	5.92	Weather—cloudy and showery. Transplantation of <i>aman</i> seedlings going on. Fine weather and sun wanted. Fodder and water sufficient. Prices of common rice:—  <div style="display: flex; justify-content: flex-end; align-items: center;"> <div style="text-align: right;">Srs.</div> <div style="display: flex; align-items: center;"> <div style="text-align: right;">10 to 13</div> <div style="font-size: 2em; margin: 0 5px;">}</div> <div>per rupee.</div> </div> </div>
	Kalna ...	6.05	
	Katwa ...	1.14	
	Raniganj ...	3.20	
	2 Bankura „ 8, '93	0.83	Weather—seasonable. Transplantation of <i>aman</i> rice going on briskly. Prospects good. Common rice selling at 11½ seers per rupee at Sadar and 11 seers at the Vishnupur market.
	Vishnupur ...	3.03	
	3 Birbhum „ 8, '93	3.14	Weather—rainy and cloudy. Transplanting of paddy seedlings going on. Fodder and water plentiful. Prices of common rice 12 to 14 seers per rupee.
	Rampur Hât ...	4.06	
	4 Midnapore „ 8, '93	0.70	There has been considerable but not excessive rain. The Sadar report says: “The cultivation of <i>kaimanti</i> paddy is still continuing. Owing to the heavy rain some of the seedlings have been destroyed, and in some places they are still submerged under water.” The report from Ghatal contains only the following remark regarding the damage caused by the floods:—“The <i>kaimanti</i> paddy is in good condition in places not affected with flood.” The report from Tamluk says: “In some places paddy crop has been damaged by constant rain and flood; low lands are submerged by water.” There are no remarks on the subject from Contai. It is not possible yet to state fully how far the prospects are affected by the floods, but it is probable that considerable damage has been caused in Ghatal and Tamluk. Prices of common rice:—  <div style="display: flex; justify-content: flex-end; align-items: center;"> <div style="text-align: right;">Srs.</div> <div style="display: flex; align-items: center;"> <div style="text-align: right;">11</div> <div style="font-size: 2em; margin: 0 5px;">}</div> <div>per rupee.</div> </div> </div>
	5 Hooghly „ 8, '93	2.00	Ordinary monsoon weather. Progress of <i>aman</i> delayed in a considerable part of the district by excess of rain, the lands being too deep in water for transplantation, and in some cases the seedlings also are flooded. Jute and <i>aus</i> , however, are generally doing very well. Prices of common rice:—  <div style="display: flex; justify-content: flex-end; align-items: center;"> <div style="text-align: right;">Srs.</div> <div style="display: flex; align-items: center;"> <div style="text-align: right;">11 to 12</div> <div style="font-size: 2em; margin: 0 5px;">}</div> <div>per rupee.</div> </div> </div>
	Serampore ...	3.09	
	Jahanabad ...	4.59	
Presidency Divn.	6 Howrah „ 8, '93	2.64	Weather—seasonable. Sowing of paddy has been resumed. A good deal of that formerly sown has been destroyed. Owing to excess of water prospects of paddy not very favourable. Jute doing well. Condition of cattle good. Fodder and water-supply sufficient. Price of rice 9½ to 11 seers per rupee.
	Ulubaria ...	2.32	
	24 Parganas „ 8, '93	2.35	Weather—seasonable. Transplantation of <i>aman</i> is delayed by excess of water. Prospects bad in the south of district. Prospects of <i>aus</i> crop in north of district very good and that of jute fair. Sufficient water and fodder. No cattle-disease reported. Prices of common rice:—  <div style="display: flex; justify-content: flex-end; align-items: center;"> <div style="text-align: right;">Srs.</div> <div style="display: flex; align-items: center;"> <div style="text-align: right;">10 to 11½</div> <div style="font-size: 2em; margin: 0 5px;">}</div> <div>per rupee.</div> </div> </div>
	8 Nadia „ 8, '93	1.54	Weather—cool and showery. Prospects of crops good on the whole. In Kushtia the excessive rain has caused considerable damage. Price of rice has slightly risen.
	Kushtia ...	8.83	
	Meherpur ...	2.75	
	Chuadanga ...	2.33	
	Ranaghat ...	2.44	Weather—rainy. Ploughing and sowing have been retarded in some places owing to excessive rain; but prospects are still good. Prices are rising. Coarse rice is now selling at 9 to 11 seers per rupee. Fodder plentiful.
	9 Khulna „ 8, '93	2.46	
	Bagerhat ...	4.86	
	Satkhira ...	8.82	
	10 Jessore „ 8, '93	3.43	Weather—cloudy and rainy. Rain has caused damage to the <i>aus</i> and <i>aman</i> paddy and jute on low lands. Fodder and water for cattle sufficient. Prices of rice have slightly risen. Rivers rising rapidly.
	Jhenida ...	2.83	
	Narail ...	1.69	
	Bangson ...	3.05	
	11 Murshidabad „ 8, '93	1.45	Weather—rainy. The recent heavy rain has considerably damaged the paddy on low lands. Sugarcane and mulberry are not doing well for the same reason. Transplantation of <i>aman</i> still going on. Fodder sufficient for cattle. Coarse rice sells at 11 seers per rupee.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL—concd.</b>			
CHITTAGONG DIVN.	12 Chittagong July 8, '93	8.31	Weather—unsettled and wet. Transplantation of <i>aus</i> is going on. The plants on the low lands have been damaged by the late heavy rain, but not those on the high lands. Condition of cattle generally good and supply of fodder sufficient.
	13 Noakhali „ 8, '93	5.59	Weather—showery. Early <i>aus</i> being reaped. Condition of late <i>aus</i> not favourable owing to overflowing of fields. State of <i>aman</i> not bad. Water is sufficient, but fodder scarce. Cattle-disease reported from all stations. Common rice sells at 10 seers per rupee.
	14 Tippera „ 8, '93	7.33	Weather—cool, cloudy; rain almost constant. <i>Aus</i> being reaped. State of crops fair in Chandpur and Brahmanbaria. Heavy loss of rice expected in Sadar subdivision near the Goomti (north bank) from floods.
	15 Chittagong Hill Tracts. June, ...	...	Report not received.
DACCA DIVN.	16 Dacca July 8, '93	2.79	Weather—cloudy and rainy. Prospects of standing crops generally good. Early rice has sustained some damage on account of the late incessant rain. Harvesting going on. Common rice selling at from 9 to 12 seers per rupee. Fodder available. No cattle-disease.
	17 Faridpur „ 8, '93	2.41	Weather—seasonable. Standing crops will do fairly well if rivers do not rise too quickly, but damage has been done by the heavy rain of the last three weeks. Common rice sells at 10 seers per rupee at Faridpur, 10½ seers at Madaripur, and 12 seers at Goalundo. Condition of cattle reported good generally, but cattle-disease still prevails in two thanas.
	Goalundo ...	3.59	
	Madaripur ...	3.29	
RAJSHAHI DIVN.	18 Backergunge „ 8, '93	6.86	Continuous rain. State and prospects of crops fair, but the <i>aus</i> has been considerably damaged in some places by the heavy rain. Common rice sells at from 9 to 12 seers per rupee. Fodder and water sufficient.
	Pirojpur ...	5.06	
	Patuakhali ...	3.30	
	Bhola ...	3.80	
	19 Mymensingh „ 8, '93	6.60	Weather—cloudy and rainy. State and prospects of rice and jute crops are good. Harvesting of <i>aus</i> commenced. Transplantation of <i>aman</i> paddy going on. Common rice sells at 12 seers per rupee. Condition of cattle good and supply of fodder sufficient.
	20 Dinajpur „ 8, '93	6.60	Weather—rainy and cloudy. Prospects of standing crops good. Transplantation of <i>haimanti</i> in progress. Price of rice at Sadar 11½ seers per rupee; that at Thakurgaon 10 to 12 seers. Condition of cattle good. Supply of fodder and drinking-water sufficient.
	Thakurgaon ...	12.31	
	21 Rajshahi „ 8, '93	1.38	Weather—seasonable, somewhat less rainy than last week. <i>Aus</i> , <i>aman</i> , and jute are said to have been injured in places by the late heavy rain. It is impossible to say how much injury has been done; but the present fine weather should help to restore the plants not irretrievably injured. There is no cattle-disease. Water and fodder supplies ample. Rice selling from 10 to 14 seers per rupee.
	Nator ...	6.37	
	Nadgaon ...	7.23	
	22 Rangpur „ 8, '93	6.26	Weather—cloudy with occasional showers. <i>Aus</i> and jute are being cut. <i>Aman</i> being transplanted. Prospects continue favourable.
	Kurigaon ...	10.42	
	Gaibanda ...	10.75	
	Nilphamari ...	7.48	Weather—rainy. <i>Aman</i> is being transplanted. Prospects unchanged. Common rice sells at 12 seers per rupee. Fodder and water sufficient.
	23 Bogra „ 8, '93	8.41	
	Sherpur ...	5.81	
	Naukhila ...	5.56	Weather—cloudy and rainy. Rivers rising. Too much rain is injuring the standing crops. Price of common rice at Pabna 12 seers per rupee, and at Sirajganj Rs. 3-12 to Rs. 4 per maund. Fodder and water-supply sufficient.
	24 Pabna „ 8, '93	2.92	
	25 Darjeeling „ 8, '93	8.62	Weather—rainy. <i>In the hills</i> :— <i>Bhutta</i> , <i>phaphur</i> , <i>kangmi</i> , <i>shama</i> and potatoes are being harvested. <i>Bhadoi</i> and <i>chota marua</i> progressing favourably. <i>Aghani</i> paddy and <i>bara marua</i> are being transplanted. <i>In the Terai</i> :—Ploughing for <i>haimanti</i> paddy going on; jute and <i>bhadoi</i> doing well. Foot-and-mouth disease of cattle reported from Siliguri. Prices of common rice:—
	Siliguri ...	7.33	
JALPAIGURI DIVN.	23 Jalpaiguri „ 8, '93	14.00	Weather—rainy. Transplantation of <i>haimanti</i> paddy going on. Prospects of <i>bhadoi</i> and jute still good. Common rice sells at 10 seers 8 chitaks per rupee. Fodder and water sufficient. No cattle-disease reported.

Srs.  
Hills ... .. 9  
Terai ... .. 11 } per rupee.



No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR.</b>			
BHAGALPUR DIV.	27 Monghyr July 8, '93	5.87	Weather—cloudy with heavy rainfall throughout the week; alternately hot and cold. <i>Bhadoi</i> thriving well in high lands. Low land crops have been submerged. <i>Makai</i> has suffered much owing to the excessive rain. Indigo reaped. No cattle-disease. Prices of common rice:—
	Begusarai ...	7.61	
	Jamui ...	4.78	
			Srs.
			Sadar ... 12 to 15
			Begusarai ... 14½
			Jamui ... 13 } per rupee.
	28 Bhagalpur .. 8, '93	8.76	Weather—rainy. The heavy rain of last week has done some harm to the Indian-corn and <i>marua</i> in the Sadar and Hanka subdivisions, but has been very beneficial in North Bhagalpur. Price of common rice, 13 seers 14 chittaks per rupee.
	Banka ...	4.54	
	Madhipura ...	8.10	
	Supaul ...	8.23	
	29 Purnea .. 8, '93	11.87	Heavy rain and almost continuously cool weather. <i>Bhadoi</i> and jute doing splendidly. Transplantation of <i>aghani</i> in progress, but retarded by the excessive quantity of water lying about and some seedlings drowned. Floods have done damage in the west, and indigo produce has been much injured by the constant rain. Price of rice stationary at 12 seers per rupee.
	Kishanganj ...	13.44	
	Araria ...	10.00	
	30 Malda .. 8, '93	2.53	Weather—rainy and wet with little intervals of sunshines. Transplanting of winter rice in progress. <i>Bhadoi</i> paddy coming into maturity. Sudden rise of the river has slightly damaged this crop in Nawabgunj thana. Price of coarse rice 11 to 15 seers per rupee. Sufficient fodder and water.
	Chanchal ...	3.08	
	Shibganj ...	3.68	
	Gajol ...	2.49	
	31 Sonthal Parganas .. 8, '93	6.18	Rain every day. Transplanting now going on. Heavy rain is doing some damage to <i>bhadoi</i> crops. Prospects of <i>janera</i> unfavourable. Price of rice is varying from 12 to 13 seers per rupee.
	Deoghur ...	1.25	
	Godda ...	3.58	
	Jamtara ...	3.28	
	Pakur ...	6.81	
	Rajmahal ...	2.73	
PATNA DIVISION.	32 Patna .. 8, '93	5.76	Weather—cloudy and rainy. The excessive rain has done some damage to <i>bhadoi</i> crops. <i>Marua</i> and paddy seedlings have also been slightly damaged by a kind of insect called <i>jhangurwa</i> , which is now said to be disappearing. Transplantation of <i>marua</i> almost completed. Paddy transplantation still going on. Prices of common rice:—
	Barh ...	3.23	
	Bihar ...	3.90	
	Dinapur ...	0.90	Srs.
			Sadar ... 15½
			Bihar ... 16½
			Barh ... 13
			Dinapore ... 13 } per rupee.
	33 Gaya .. 8, '93	0.27	Weather—seasonable. <i>Bhadoi</i> sowings approaching completion. Prospects favourable. Fodder and water-supply ample. Common rice sells at from 13 to 15 seers per rupee.
	Jahanabad ...	0.81	
	Aurangabad ...	2.11	
	Nawada ...	1.95	
	34 Shahabad .. 8, '93	5.21	Weather—cloudy with thunderstorm and heavy rain. Prospects of <i>aghani</i> and <i>bhadoi</i> excellent. Sugarcane also promising.
	Buxar ...	2.22	
	Bhabhua ...	4.21	
	35 Darbhanga .. 8, '93	3.19	Weather—cloudy with frequent showers. <i>Makai</i> doing well. Transplanting of <i>marua</i> and paddy commenced in places. Prospects of indigo favourable. Fodder and water for cattle sufficient. Prices remain stationary.
	Madhubani ...	3.89	
	Samastipur ...	3.02	
	36 Muzaffarpur .. 8, '93	2.81	Weather—cloudy. Sowing of <i>bhadoi</i> and paddy crops going on. Standing crops doing well. Transplantation of paddy in progress. Dacca disease among cattle in Belsund thana; otherwise general state of cattle satisfactory. Supply of fodder and water sufficient. Prices almost stationary.
	Hajipur ...	1.74	
	Sitamarhi ...	8.64	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR—concl'd.</b>			
PATNA DIVISION—concl'd.	37 Saran July, 8, '93	3.24	Weather—seasonable. The first <i>general</i> rain fell on the night of the 7th. Prospects of crops very good. Fodder and water plentiful. Prices of common rice :—  <div style="display: flex; justify-content: flex-end; align-items: center;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div>Srs.</div> <div>13</div> <div>12</div> <div>13</div> </div> <div style="margin-left: 10px;">} per rupee.</div> </div>
	Siwan ...	5.29	
	Gopalganj ...	2.31	
	Chhapra ...		
38 Champaran „ 8, '93		9.59	Weather—fairly cool for the time of year. Rain nearly every night; days generally fine. Transplantation of paddy going on. <i>Makai</i> being weeded. Prices nearly stationary. Fodder and water sufficient.
<b>ORISSA.</b>			
ORISSA DIV.	39 Cuttack „ 8, '93	2.00	Weather—cloudy with occasional light showers. Sowing of <i>sarad</i> in progress. <i>Beali</i> doing well. Supply of fodder and water sufficient. Prices of common rice :—  <div style="display: flex; justify-content: flex-end; align-items: center;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div>Srs. c. Srs. c.</div> <div>10 8 to 13 2</div> <div>15 12 to 18 6</div> <div>14 0 to 18 6</div> <div>15 0</div> </div> <div style="margin-left: 10px;">} per rupee.</div> </div>
	40 Puri „ 6, '93	0.87	
	Khurda ...	3.69	
	Banpur ...	1.19	
41 Balasore „ 8, '93		1.71	Weather—seasonable. Paddy seedlings being transplanted. Prices of rice :—  <div style="display: flex; justify-content: flex-end; align-items: center;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div>Srs.</div> <div>13</div> <div>14</div> </div> <div style="margin-left: 10px;">} per rupee.</div> </div>
<b>CHOTA NAGPUR.</b>			
<i>South-West Frontier Agency.</i>			
CHOTA NAGPUR DIV.	42 Hazaribagh July, 8, '93	6.90	Weather—seasonable. Sowing still in progress. Indian-corn injured by excessive rain. Other crops doing well. Fodder sufficient. Prices of common rice :—  <div style="display: flex; justify-content: flex-end; align-items: center;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div>Srs.</div> <div>9 to 14</div> <div>9 to 12</div> </div> <div style="margin-left: 10px;">} per rupee.</div> </div>
	Giridi ...	2.86	
	43 Lohardaga „ 8, '93	3.7	Weather—seasonable. Ploughing and sowing of winter rice continue. Prospect of <i>bhadoi</i> crops continues good. Common rice selling at 13 seers per rupee. Fodder and water plentiful.
	44 Palamau „ 7, '93	3.30	Heavy showers. Rain in all parts of the district. Sowing of paddy and <i>bhadoi</i> crops is in progress, but some damage has been caused by the heavy rain to paddy and <i>bhadoi</i> crops which were already sown. Cattle disease prevalent in a few places. Water and fodder sufficient. Prices stationary.
	45 Singhbhum „ 8, '93	1.17	Weather—seasonable. State of all crops good. Cattle-disease reported from some villages in the Kolhan.
	46 Manbhum „ 8, '93	2.23	Weather—cloudy and occasionally fair. Sowing still going on. Transplantation commenced. Prospects of <i>jonar</i> bad. Price of rice 10 to 12 seers per rupee. Fodder and water sufficient.
	Gobindpur ...	2.04	

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 10th July, 1893.H. H. RISLEY,  
Secy. to the Govt. of Bengal.

## STATEMENT SHOWING THE STOCKS OF RICE IN AND AROUND CALCUTTA.

STOCK IN HAND AS COMPILED ON—

NAMES OF MARKS.	1st week of July 1893.	1st week of August 1892.	1st week of Sept. 1892.	1st week of Oct. 1892.	1st week of Nov. 1892.	1st week of Dec. 1892.	1st week of Jan. 1893.	1st week of Feb. 1893.	1st week of March 1893.	1st week of April 1893.	1st week of May 1893.	1st week of June 1893.	1st week of July 1893.
Balinghata	Mds. 9,62,000	Mds. 8,39,000	Mds. 6,74,000	Mds. 4,96,500	Mds. 4,37,000	Mds. 3,16,000	Mds. 2,34,000	Mds. 4,05,000	Mds. 6,13,000	Mds. 9,04,000	Mds. 13,32,000	Mds. 11,73,000	Mds. 10,51,000
Uttadange	" 65,800	" 65,900	" 70,900	" 65,100	" 57,300	" 57,800	" 65,200	" 78,700	" 92,500	" 1,06,500	" 1,15,000	" 1,17,500	" 1,19,700
Chitpur, Golabaree, Kunsar, Loohy, Hattkhola, and Oulpi Ghat.	" 7,30,400	" 6,53,300	" 6,41,400	" 5,63,300	" 5,64,800	" 5,40,700	" 5,64,700	" 7,01,900	" 6,54,500	" 6,46,600	" 6,43,000	" 6,68,000	" 6,65,300
Puthurichatta, Posta, and Jorabagan.	" 3,000	" 4,000	" 3,700	" 3,000	" 2,500	" 2,000	" 3,000	" 8,000	" 3,500	" 3,000	" 2,000	" 2,500	" 3,000
Tollymore, Chetia, Kidderpore, and Munshiganj.	" 1,12,100	" 1,42,400	" 96,500	" 93,600	" 51,100	" 40,600	" 57,900	" 1,14,200	" 1,46,500	" 1,56,700	" 1,55,300	" 1,70,200	" 1,53,300
31 Minor bazaar (estimated) ...	" 2,40,000	" 2,40,000	" 2,40,000	" 2,40,000	" 2,40,000	" 2,40,000	" 2,40,000	" 2,40,000	" 2,40,000	" 2,40,000	" 2,40,000	" 2,40,000	" 2,40,000
Other retail shops, 3,129 in number (estimated).	" 2,60,000	" 2,60,000	" 2,60,000	" 2,60,000	" 2,60,000	" 2,60,000	" 2,60,000	" 2,60,000	" 2,60,000	" 2,60,000	" 2,60,000	" 2,60,000	" 2,60,000
Raidyabati, Kowabari, Bhadrachwar, and Chaudernagore.	" 24,000	" 61,125	" 51,350	" 33,900	" 31,125	" 40,037	" 63,901	" 69,800	" 70,380	" 6,682	" 5,319	" 42,577	" 23,275
Total	23,79,363	22,59,725	20,27,750	17,45,468	16,35,825	14,87,137	16,08,761	18,67,600	20,89,280	23,13,463	27,43,619	29,61,777	24,90,575
On Railway premises on both sides of the river.	" 5,239	" 1,322	" 11,336	" 17,216	" 9,774	" 24,657	" 35,589	" 32,791	" 23,643	" 23,773	" 10,934	" 11,512	" 8,865
By Port Commissioners' returns.	" 27,288	" 25,689	" 18,908	" 27,678	" 13,606	" 38,382	" 47,638	" 40,930	" 41,303	" 25,750	" 31,378	" 19,901	" 13,214
On boats unloaded.	" 21,650	" 17,415	" 27,069	" 24,087	" 15,777	" 16,936	" 1,30,459	" 1,30,639	" 1,90,575	" 78,791	" 34,109	" 7,615	" 14,625
By Canal returns.	" 21,650	" 17,415	" 27,069	" 24,087	" 15,777	" 16,936	" 1,30,459	" 1,30,639	" 1,90,575	" 78,791	" 34,109	" 7,615	" 14,625
Grand total of Stocks	24,53,539	23,04,351	20,54,463	18,14,399	16,74,982	15,66,372	18,22,447	20,61,921	23,52,796	24,30,746	28,09,100	27,00,505	23,97,279
Probable stock available for exportation by sea.	13½ lakhs	12½ lakhs	10½ lakhs	7½ lakhs	6½ lakhs	6 lakhs	7½ lakhs	10 lakhs	13 lakhs	13½ lakhs	17½ lakhs	16½ lakhs	14½ lakhs

H. H. BISLEY,  
Secy. to the Govt. of Bengal.STATISTICAL DEPARTMENT,  
The 10th July, 1893.







**Bengal in June 1893.**

[illegible]





**Bengal in May 1893—continued.**

	23	25	26	27	28	29	30	Number of rainy days.	Average number of rainy days.	Total rainfall for the month.	Average rainfall for the month.	Heaviest rainfall during the month.	Total rainfall from 16th May to 30th June 1888.	Average rainfall from 16th May to 30th June.	Station.	District.	Meteorological division.
10	1.07	0.33	0.04	0.60	0.55	0.19	0.60	0.01	0.62	19	11.80	14.63	11.14	1.97	20.73	13.63	Mald. Chanchal. ... Mald. ... NORTH BENGAL—contd.
11	2.11	0.30	...	0.35	0.46	0.20	0.47	...	0.57	18	11.48	10.63	12.58	2.11	12.63	15.62	Gajol. Sibganj.
12	2.50	0.25	...	1.20	1.80	0.15	0.30	0.11	0.71	19	13.87	18.00	12.80	2.50	23.61	16.60	Mohadehpur. ... Dinajpur.
13	2.30	0.27	0.18	0.75	0.85	0.05	0.32	0.40	1.40	18	11.50	16.15	12.80	2.90	21.19	14.97	Churamon. ... Rajnagar. ... Dinajpur.
14	4.44	0.15	0.08	0.25	1.70	0.50	0.06	0.20	0.31	21	12.43	18.10	14.34	4.44	20.48	21.43	Halooghat. ... Bhawalpur. ... Bhawalpur.
15	3.30	0.03	0.47	0.14	0.74	0.17	1.76	0.37	0.25	22	14.00	16.30	16.50	3.30	21.01	17.75	Thakurgaon. ... Bhawalpur. ... Bhawalpur.
16	0.06	0.05	0.05	0.12	0.03	0.20	...	...	...	15	13.39	16.01	12.53	0.06	20.54	21.16	Bhawalpur. ... Bhawalpur. ... Bhawalpur.
17	0.58	...	...	0.35	0.27	...	...	2.80	...	19	13.03	16.61	15.99	3.03	22.37	21.16	Bhawalpur. ... Bhawalpur. ... Bhawalpur.
18	5.03	0.22	...	0.80	1.08	...	...	0.70	1.08	19	15.35	19.99	10.61	0.22	25.46	26.26	Rangpur. ... Purnea. ... Khatim. ... Gobindpur. ... Bhawalpur. ... Bhawalpur. ... Bhawalpur.
19	3.14	0.17	0.07	0.61	0.68	0.07	0.36	1.20	1.20	23	16.50	22.05	23.40	4.60	29.73	31.23	...
20	2.85	0.60	0.34	0.50	0.36	0.03	0.13	0.20	1.31	20	17.03	17.64	26.19	3.45	19.48	34.87	...
21	2.16	0.11	0.34	0.50	0.51	0.05	0.04	0.55	0.20	19	17.03	17.64	26.19	3.45	19.48	34.87	...
22	2.50	1.82	...	0.57	0.34	0.07	...	...	...	15	17.03	17.64	26.19	3.45	19.48	34.87	...
23	2.88	...	...	0.37	0.34	0.07	...	...	...	16	17.03	17.64	26.19	3.45	19.48	34.87	...
24	3.48	0.85	0.12	...	...	...	0.84	2.26	1.09	20	17.03	17.64	26.19	3.45	19.48	34.87	...
25	3.80	0.19	0.32	...	...	...	1.45	0.35	1.45	16	17.03	17.64	26.19	3.45	19.48	34.87	...
26	...	0.30	0.04	...	...	0.06	0.21	1.34	1.28	16	17.03	17.64	26.19	3.45	19.48	34.87	...
27	...	0.40	...	...	...	0.73	1.82	1.15	1.7	17	17.03	17.64	26.19	3.45	19.48	34.87	...
28	...	0.80	...	0.10	0.60	0.15	0.18	0.88	1.05	20	17.03	17.64	26.19	3.45	19.48	34.87	...
29	0.02	1.20	0.06	...	0.12	0.40	1.44	0.20	0.20	24	17.03	17.64	26.19	3.45	19.48	34.87	...
30	1.10	0.04	0.12	1.77	0.08	0.19	0.10	0.20	0.30	23	20.01	23.78	3.03	3.03	31.10	30.43	...
31	0.40	0.27	...	1.18	...	0.50	0.06	2.25	0.10	24	20.01	23.78	3.03	3.03	31.10	30.43	...
32	0.18	...	0.19	1.18	...	0.11	...	1.85	0.23	20	19.33	21.61	23.25	1.93	23.09	36.51	...
33	0.51	0.10	0.31	0.73	0.03	0.32	...	0.83	0.10	19	20.42	20.26	31.87	4.12	23.09	40.21	...





# SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSERVATIONS TAKEN IN ASSAM, FOR THE MONTH OF JUNE 1893.

The meteorological elements varied from the normal to an unusual extent, and of these irregularities the most noteworthy are—

1. Mean pressure for the month is uniformly above the normal over the whole province by about .05 inch. Notwithstanding this large excess, the monsoon current during the latter half of the month was very strong as judged by the heavy rainfall.
2. The rainfall has been very irregularly distributed, and was largely due to local thunderstorms, which caused excessive rainfall over limited areas.
3. The days were much more cloudy than usual, and day temperatures are much below the normal, especially in the western districts. Mean minimum temperature, though below the normal, is only slightly so.

At the beginning of the month south-west monsoon conditions were fairly general in all districts, having followed the cyclonic storm at the end of May. Fine weather began over the Bay about the beginning of the month, and by the 4th was general over Bengal. With the exception of a few local thunderstorms, this settled weather with high, though not excessive, temperature continued till nearly the middle of the month, when a disturbance in the Bay caused the renewal of monsoon weather. This disturbance seems to have been due to the very high pressure which then prevailed in the north of the Bay and over Bengal, because at all the coast stations in Madras and Burma pressure continued practically normal except on the day when the centre of the disturbance was near the coast of the Circars, and there was then a very rapid fall. But that the intensity of the disturbance was dependent largely on this relatively high-pressure area in the north is shown by the rapid loss of intensity that occurred, when pressure over Bengal and the north of the Bay began to give way.

The first signs of the disturbance appeared on the 8th in the south-east of the Bay, but weather was not generally disturbed till the 12th, when pressure readings were very uniform round the coast and a diffused depression covered the Bay. The depression steadily developed, wind velocity increased daily at Diamond Island, but pressure changes continued small everywhere. The depth of the depression and the intensity of the disturbance were to a large extent due to the very high and increasing pressure in Bengal and the north of the Bay, and on the 12th, when the low-pressure area was shown over almost the whole of the Bay, the lowest readings were very little under 29.65 inches. These pressures were all above the normal values. On the 13th the distribution was almost the same, there being a slight fall in the south and a slow rise in the north of the Bay, but on the 14th the fall became brisk in Madras and the Circars, and the area of lowest pressure appeared much nearer the west coast. This was followed on the 15th by a very rapid fall in the Circars, and some time during the night the depression crossed the coast between Cocanada and Vizagapatam. By the time the centre reached the coast the depression was becoming much more diffused owing to the high pressure in the north beginning to give way, and at the same time it was filling up. Under these conditions the stormy weather moderated very rapidly, but for two or three days afterwards strong winds and a rough sea prevailed along the west coast as far south as Masulipatam.

While the depression was still over the sea, showery weather was being experienced in many parts of Bengal; but as the rainfall was due to local thunderstorms, it was scattered and irregular. On the 13th in Orissa and on the 13th and 14th in most of the other districts the showers were neither so heavy nor so general. After the depression crossed the coast and moved into Central India, winds became southerly in Bengal and ordinary monsoon weather was general except in North Bihar, where rainfall was still scattered. This monsoon weather continued with little change till the 19th, when a period of unsettled conditions began in Lower Bengal, and led to the unusually heavy rainfall, which was the chief feature of the weather in the latter part of the month. Pressure oscillations were unusually large and gave rise to thunderstorms of great local intensity. There was a rapid fall of pressure on the 19th and 20th, followed by an equally rapid rise on the 21st and 22nd, when the distribution was almost normal. To understand the great irregularity of the rainfall during these days reference must be made to the tables, when it will be seen that very heavy falls were recorded at some places, while at the neighbouring rain-measuring stations amounts were only light or moderate.

These changes led up to a depression which appeared in South-West Bengal on the 23rd, and which, owing to the continued decrease of pressure in East Bengal, covered the whole of Lower Bengal on the 24th with its centre about midway between Burrisal and Comilla. There was then defect of a quarter of an inch in East Bengal, and the cyclonic circulation caused by the depression extended over the whole province. Very heavy rain fell in Lower Bengal on the 23rd, but though it was general on the 24th, amounts were much smaller. The eastward motion of the low-pressure area then stopped, and after remaining stationary for a day, it began to move with moderate rapidity, but with little change of intensity towards the west, crossing Lower Bengal and Chota Nagpur. On the 26th the centre was between Jessore and Faridpur, on the 27th between Ranchi and Hazaribagh, and on the 28th after a rapid rise of pressure it had practically ceased to affect weather in Bengal. Though the depression remained in almost the same position for four days, and gradients were steep over the Bay, the increase of wind velocity was inconsiderable.

The quantity of rain, however, was unusually large in places, and, except in Orissa and South-West Bengal, just at the end of the month, the general rainfall continued. During the passage of the depression across Chota Nagpur the rainfall was very heavy, especially in Singhbhum and Manbhum, and for that period the average fall in Chota Nagpur was two and-a-half times the normal. Owing to the rapid recovery of pressure, conditions were normal on the 28th, and the rise continuing there was soon a considerable excess. Ordinary monsoon weather continued, however, till the end of the month, and almost general rain fell in all districts. At the same time gradients became less steep in the Bay, and a period of comparatively calm weather began.

**Pressure.**—The chief peculiarity in connection with pressure has been the large excess which has generally prevailed before the formation of a depression. Just before a disturbance begins pressure is generally more uniform than usual, but this may be due to a relatively low distribution in the south or to relatively high readings in the north. The latter arrangement was very noticeable before the disturbance, which led to general monsoon weather in the middle of the month. Owing to these high readings the means for the month are above the normal at all stations by fairly uniform amounts. The largest excess is  $\cdot 058''$  at Midnapore, and the smallest  $\cdot 03''$  at Dacca and Hazaribagh.

**Temperature.**—Has been steadily below the normal, especially during the day, throughout almost the whole month. During the first half of the month, when almost cloudless weather was general, rather high readings were recorded in the northern districts. The means in North and East Bengal and Bihar were above the normal by small amounts at the end of the first week, and also in East Bengal up to the middle of the month, but after that low temperatures prevailed except in the extreme north, where there was an occasional small excess. As stated above, the defect in maximum was much greater than in minimum temperature owing to the densely-clouded skies. The mean defect in the former is about  $6^{\circ}$  in Chota Nagpur,  $4^{\circ}$  in South-West Bengal and Orissa, and about  $2^{\circ}$  in the other districts, while in minimum temperature defect is under  $1^{\circ}$  in all districts except Chota Nagpur.

The difference between the mean for the month and the normal varies from  $-0.6^{\circ}$  in North Bengal to  $-5.1^{\circ}$  in Chota Nagpur.

**Rainfall.**—Owing to the local character of the rainfall, it is difficult to give a correct idea of the amount except by taking the means for the various districts or subdivisions, and even these show much variation. In Orissa the mean fall is slightly below the normal, in North Bihar exactly normal, and in North Bengal a tenth of an inch above, while in the other districts there is a large excess. In South Bihar the mean excess is  $3.76$ , in East Bengal  $6.12$ , in Chota Nagpur  $6.81$ , and in South-West Bengal  $8.4$  inches. A large proportion of the rainfall occurred during the last week, and the excessive character of the falls in Lower Bengal, Chota Nagpur and South Bihar is due to the depression which formed in South-West Bengal, and after moving eastward, returned across Lower Bengal and passed through Chota Nagpur.

For the falls at the various stations reference must be made to the tables, but the more striking of the irregularities may be noted. In three separate areas in Lower Bengal the falls were between 20 and 30 inches, while intermediate between them there was a considerable tract in parts of which the fall was little over 10 and never over 15 inches. These areas contain portions of different districts. Those of the heavier rainfall included part of the 24-Parganas, Howrah and Midnapore, Singhbhum and Manbhum, also parts of Faridpur, Rajshahi, and Murshidabad. The lighter falls occurred in Burdwan and part of Birbhum. In Orissa the total fall varied from  $2.4$  inches in the south to about 15 inches in the north, but in East Bengal it varied from  $55.4$  at Cox's Bazar to less than 10 inches at Ramchandrapur in Tippera. In North Bengal the falls were generally between 15 and 25 inches, the chief exceptions being—Buxar  $33.56$ , Kurseong  $30.8$ , Bhagalpur and Debiganj in the Jalpaiguri district over 31, and Darjeeling  $27.32$  inches. In the greater part of Bihar the falls were between 5 and 10 inches.

As compared with the normal, the areas of deficiency are the south of Orissa, North Bihar, and the northern districts of North Bengal, where defect ranges up to 15 inches. Elsewhere there is excess, generally of less than 10 inches, but in some of the parts where falls were heaviest, excess reaches almost 20 inches and at Cox's Bazar exceeds it.

The following table gives a condensed view of the rainfall of the various divisions of Bengal in June and in each of the previous months of the present year as compared with the normal values for the same period. The figures given represent the actual falls expressed as a percentage of the normal falls, and it will be seen that almost without exception the rainfall has been above the normal since the commencement of the year, and that for the six months the percentage varies from 115 in North Bengal and North Bihar to 247 in Orissa :—

METEOROLOGICAL DIVISIONS.			January.	February.	March.	April.	May.	June.	Actual rainfall of first six months of 1893 expressed as a percentage of the normal fall for the period.
Orissa*	...	...	423	309	238	89	607	99	247
South-West Bengal	...	...	120	484	160	115	225	183	199
North Bengal	...	...	104	317	145	213	96	100	115
East Bengal	...	...	80	291	123	149	207	134	156
North Bihar	...	...	170	357	134	208	84	100	115
South Bihar	...	...	115	602	188	255	171	156	180
Chota Nagpur	...	...	155	585	226	161	212	185	212

The following table gives full data for the comparison of the actual and normal rainfall of the month of June for all the districts of the Province. The figures are derived from the average and actual rainfall of rain-recording stations in each district, due allowance being made for the area which each represents:—

Percentage Table for June 1893.

DIVISION.	DISTRICT.	Normal district rainfall June.	Actual district rainfall for June 1893.	Percentage of actual to normal rainfall.	Percentage excess (+), deficit (-).
Orissa	Puri	7.89	8.56	45	— 55
	Outtack	9.12	7.42	81	— 19
	Balasore	8.25	11.58	140	+ 40
	Midnapore	9.59	18.95	198	+ 98
	24-Parganas	9.83	20.95	213	+113
South-West Bengal	Howrah	9.45	21.76	230	+130
	Hooghly	9.75	18.95	194	+ 94
	Burdwan	9.23	13.90	151	+ 51
	Bankura	9.56	19.88	204	+108
	Birbhum	9.10	18.16	145	+ 45
	Nadia	9.62	20.95	218	+118
	Khulna	12.44	20.04	161	+ 61
	Jessore	12.10	15.66	129	+ 29
	Murshidabad	9.05	21.07	233	+133
	Chittagong	26.82	47.84	182	+ 82
East Bengal	Backergunge	18.66	25.40	136	+ 36
	Noakhali	24.18	32.44	134	+ 34
	Faridpur	12.61	20.96	166	+ 66
	Dacca	12.91	16.44	131	+ 31
	Tippera	17.21	18.75	109	+ 9
	Mymensingh	17.42	21.05	121	+ 21
	Pabna	11.32	17.97	159	+ 59
	Bogra	13.11	16.10	123	+ 23
	Rajshahi	10.26	18.05	176	+ 76
	Malda	10.60	12.66	119	+ 19
North Bengal	Dinajpur	13.25	16.67	125	+ 25
	Rangpur	21.49	20.32	95	— 5
	Kuch Bihar	32.75	21.91	67	— 33
	Jalpaiguri	29.12	15.33	53	— 47
	Darjeeling	24.02	27.32	114	+ 14
	Purnea	12.98	14.83	114	+ 14
	Bhagalpur	8.42	8.79	104	+ 4
	Darbhanga	8.00	5.87	73	— 27
	Muzaffarpur	7.03	7.76	110	+ 10
	Champaran	8.31	8.86	107	+ 7
South Bihar	Saran	6.39	6.24	98	— 2
	Shahabad	5.30	7.07	138	+ 38
	Gaya	5.62	7.83	142	+ 42
	Patna	5.95	11.86	199	+ 99
	Monghyr	6.88	10.55	165	+ 65
Chota Nagpur	Sonthal Parganas	8.69	15.29	178	+ 78
	Hazaribagh	7.90	16.46	208	+108
	Lohardaga	8.44	10.45	124	+ 24
	Palamau	6.04	10.63	176	+ 76
	Singbhum	8.01	14.65	183	+ 83
	Manbhum	8.42	20.68	243	+143

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the month of June 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.								RAINFALL.						
	Highest observed during month.	Lowest observed during month.	Averages for month.			Average mean of month above or below normal mean of month.	Of month.			Rainy days.			Since 16th May 1893.		
			Of highest of each day.	Of lowest of each day.	Of mean of each day.		Average.	Normal average.	Variation.	Average number in month.	Normal average number in month.	Variation.	Average.	Normal average.	
Orissa ... ..	87.1	71.6	88.7	79.0	83.9	— 2.3	6.72	8.79	— 0.07	11.92	9.90	+ 2.02	27.94	10.97	
South-West Bengal ... ..	98.6	70.7	80.4	78.2	83.7	— 2.6	16.54	10.14	+ 6.40	16.03	13.29	+ 2.73	26.94	13.78	
North Bengal ... ..	97.1	71.7	86.2	76.3	82.3	— 0.6	17.65	17.57	+ 0.08	18.92	14.71	+ 4.21	22.24	22.94	
East Bengal ... ..	94.3	70.9	86.2	76.8	81.5	— 1.0	24.23	18.16	+ 6.12	19.28	16.67	+ 2.61	36.27	22.39	
North Bihar ... ..	103.8	68.8	92.1	77.7	84.9	— 1.3	8.70	8.70	0	11.45	8.80	+ 2.65	9.68	10.40	
South Bihar ... ..	107.6	72.3	93.4	78.2	85.8	— 2.7	10.50	6.74	+ 3.76	13.90	8.40	+ 5.50	19.09	8.27	
Chota Nagpur ... ..	98.8	65.4	87.9	73.4	80.7	— 3.1	14.79	7.98	+ 6.81	11.22	10.07	+ 1.15	13.56	9.60	
Assam ... ..	94.1	70.3	85.0	75.6	81.3	— 1.1									

\* Daltonganj not included.

METEOROLOGICAL OFFICE, BENGAL,  
The 11th July 1893.

C. LITTLE,  
Offg. Meteorological Reporter to the Govt. of Bengal.

**Abstract of the results of Meteorological Observations taken at the Alipore  
Observatory in the month of June 1893.**

	Inches.	Date.	Hour.
The mean pressure of the month ... ..	29.597		
The average pressure of June from 24 years' registers ...	29.549		
The highest pressure in the month ... ..	29.765	9th	10
The lowest pressure in the month ... ..	29.316	26th	16
The range of pressure ... ..	0.449		
Hours.			
The total number of hours of bright sunshine during the month	123.6		
The maximum possible number of hours of sunshine ...	403.4		
°			
The mean temperature of the month ... ..	83.1		
The average temperature of June from 24 years' registers ...	85.0		
The highest temperature in the month ... ..	91.9	3rd.	
The lowest temperature in the month ... ..	75.4	1st.	
The range of temperature during the month ... ..	16.5		
The mean daily range of temperature ... ..	9.5		
The greatest range of temperature in one day ... ..	13.6	12th.	
Per cent.			
The mean humidity of the month ... ..	86		
The average humidity of June from 24 years' registers ...	81		
Inches.			
The mean vapour tension of the month ... ..	0.973		
The average vapour tension of June from 9 years' registers ...	0.998		
The mean cloud proportion of the month ... ..	7.67		
The average cloud proportion of June from 16 years' registers ...	7.04		
The total rainfall of the month ... ..	25.65		
The total rainfall indicated by a Beckley's self-registering rain-gauge (mouth of the gauge about 52 feet above the ground)	?		
The average fall of June from 48 years' registers ...	12.08		
The greatest fall in 24 hours ... ..	8.46	20th.	
Days.			
The number of rainy days in the month ... ..	19		
The average number of rainy days in June from 24 years' registers ... ..	19		
°			
The mean maximum equilibrium temperature of solar radiation during the month ... ..	140.8		
The mean difference of sun and air temperatures ... ..	53.2		
The greatest sun temperature ... ..	157.4	12th.	
The greatest excess of sun over air temperature ... ..	68.3	25th.	
The mean temperature of the nocturnal radiation thermometer on woollen cloth ... ..	76.3		
The mean depression of the nocturnal radiation thermometer below the minimum air temperature at 4 feet above the ground ... ..	1.9		
The greatest depression of the nocturnal radiation thermometer below the minimum air temperature ... ..	4.2	9th.	
Miles.			
The mean movement of the wind per day ... ..	108.7		
The greatest movement of the wind in one day ... ..	241.0	27th.	
The greatest movement of the wind in one hour ... ..	18.0	27th, 10 to 11 and 11 to Noon.	
The number of hours with winds from each of the 8 points—			
N. 11, N.E. 4, E. 29, S.E. 64, S. 230, S.W. 225, W. 62, N.W. 38, Calm 57.			

The results of observations at the Alipore Observatory are not rigorously comparable with the registers of past years (at the Park Street Observatory). The barometer is about 3 feet higher at Alipore, and, other things being equal, reads therefore .003 lower. The diurnal range of temperature is also greater at Alipore, and the mean temperature apparently about 0.5 higher; and, finally, the thermometer which furnished the record of temperature at the Surveyor-General's Office during 20 years and upwards is found to read 0.6 higher than the Kew standard thermometer, which is the standard of reference at the present Observatory.

J. H. GILLILAND,

METEOROLOGICAL OFFICE, INDIA;  
Calcutta, the 10th July 1893.

*For Meteorological Reporter to the Govt. of India.*



Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	District.	Representative station.	STATION OBSERVATIONS.												
			AIR PRESSURE.			WIND.		TEMPERATURE.							
			Mean barometric height, 8 A.M. reduced to 32°.	Mean reduced to sea-level and constant gravity, lat. 45°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.	
			ORISSA.	Puri ...	29.075	29.030	—	SW	312	90.2	7th July	77.0	4 & 5 July	87.9	80.4	84.2
SOUTH-WEST BENGAL.	Puri ...	Gopalpore ...	29.077	29.033	+0.064	SW	333	87.7	3, 4, & 7 ..	75.8	4 & 5 ..	87.1	77.7	82.5	
	...	False Point ...	29.077	29.040	+0.070	SWly	298	87.9	3 & 5 ..	74.0	4th ..	86.5	78.7	82.0	
	Cuttack ...	Cuttack ...	29.000	29.023	+0.080	SW	91.7	91.7	4th ..	74.8	5th ..	80.3	77.9	83.6	
	Balasore ...	Balasore ...	29.017	29.019	+0.058	SW	196	89.4	2 & 3 ..	73.8	5th ..	87.3	77.0	82.2	
	Midnapore ...	Midnapore ...	29.026	29.021	+0.059	SW	115	92.3	3rd ..	74.1	4th ..	88.4	76.8	82.7	
	24-Parganas ...	Calcutta ...	29.050	29.017	+0.061	SWly	120	87.0	3rd ..	73.7	5th ..	85.8	77.1	81.4	
		Saugor Island	29.057	29.027	+0.067	SWly	470	87.7	2 & 3 ..	73.0	3, 5, 6 ..	86.2	79.0	82.6	
	Howrah	Howrah	...	...	...	...	...	...	...	...	...	...	...	...	...
	Hooghly	Hooghly	...	...	...	...	...	...	...	...	...	...	...	...	...
	Nadia	Krishnagar ...	29.015	29.010	+0.059	Sly	163	89.3	3rd ..	75.7	5th ..	80.7	77.0	82.2	
SOUTH BENGAL.	Khulna	Jessore ...	29.048	29.028	+0.053	Sly	107	90.5	3rd ..	74.4	5th ..	87.4	76.7	82.1	
	Burdwan ...	Burdwan ...	29.071	29.017	+0.062	S	119	90.6	3rd ..	76.2	4 & 5 ..	87.0	78.3	82.7	
		Raniganj	29.017	29.003	+0.046	SW	70	91.7	3rd ..	74.9	4 to 7 ..	88.7	78.3	82.5	
	Bankura	Bankura ...	29.042	29.031	+0.054	SEly	87	90.1	3rd ..	75.0	5th ..	87.4	77.5	82.5	
	Murshidabad ...	Berhampore...	29.030	29.005	+0.041	S	139	87.1	2nd ..	70.3	5th ..	85.2	78.7	81.9	
		Sirajganj ..	29.031	29.027	+0.042	Sly	109	89.0	8th ..	74.7	4 & 6 ..	85.0	76.2	80.6	
	Bogra	Bogra ...	29.038	29.011	+0.057	SE	104	88.2	2, 6, 8 ..	74.2	6th ..	86.9	75.5	81.2	
	Rajshahi	Rampur Boahla.	29.030	29.000	+0.057	Sly	219	88.1	8th ..	75.6	4, 5, 6 ..	85.7	76.7	81.2	
	Malda	Malda ...	29.032	29.004	—	SE	104	90.0	5th ..	75.5	3rd ..	87.6	77.4	82.5	
	Dinajpur	Dinajpur ...	29.036	29.013	+0.030	E	92	90.1	4th ..	75.2	4th ..	86.8	77.1	82.0	
NORTH BENGAL.	Rangpur	Rangpur ...	29.047	29.021	+0.012	E	79	88.8	5 & 6 ..	74.7	4th ..	86.2	76.4	81.3	
	Jalpaiguri	Jalpaiguri	29.035	29.033	+0.051	Variable	86	88.9	3rd ..	73.6	4th ..	86.4	74.8	80.6	
	Kuch Bihar	Kuch Bihar	...	...	...	...	...	...	...	...	...	...	...	...	
	Darjeeling	Darjeeling	22.801	—	+0.067	Variable	90	64.1	4 & 5 ..	54.1	6th ..	64.1	55.9	60.0	
	Sikkim	Gumtong ...	19.009	—	—	Variable	58	56.9	6th ..	35.1	5 & 6 ..	53.0	37.0	45.1	
	Chittagong	Chittagong ...	29.068	29.703	+0.063	SE	129	88.7	2nd ..	74.1	2 & 4 ..	82.5	75.4	79.0	
	Chittagong Hill Tracts	Demagiri ...	...	...	...	...	...	...	...	...	...	...	...	...	
	Rackergunge	Barisal ...	29.087	29.046	+0.063	SEly	141	88.3	2nd July	74.9	5 & 6 ..	83.9	76.8	80.4	
	Noakhali	Noakhali ...	29.088	29.078	+0.050	SW	101	85.5	3rd ..	74.8	6th ..	82.8	76.2	79.6	
	Faridpur	Faridpur ...	29.061	29.055	+0.068	Sly	148	86.5	2 & 3 ..	74.0	3rd ..	85.2	74.8	81.0	
EAST BENGAL.	Dacca	Dacca ...	29.065	29.035	+0.043	Sly	...	88.1	8th ..	75.2	5th ..	85.7	77.6	81.6	
	Tippera	Comilla ...	29.081	29.064	+0.055	Sly	178	89.9	3rd ..	74.8	3, 4, 5 ..	84.1	76.0	80.1	
	Mymensingh	Mymensingh	29.029	29.033	+0.034	SEly	135	88.7	2nd ..	74.6	4 & 6 ..	84.3	75.9	80.1	
	Purnea	Purnea ...	29.019	29.007	+0.031	Variable	89	90.2	5th ..	74.2	4th ..	86.5	77.1	81.8	
	Bhagalpur	Bhagalpur ...	29.069	29.052	+0.038	Calm	48	90.7	2nd ..	73.5	4th ..	87.9	76.2	82.1	
	Darbhanga	Darbhanga ...	29.047	29.068	+0.028	Variable	154	88.9	2nd ..	76.2	7th ..	87.0	77.8	82.4	
	Muzaffarpur	Muzaffarpur	29.049	29.000	—	ESE	138	89.7	6th ..	76.7	7th ..	87.1	77.6	82.4	
	Champaran	Motihari ...	29.085	29.070	+0.030	ENE	179	91.2	6th ..	74.0	5th ..	88.3	76.4	82.3	
	Narayan	Chapra ...	29.046	29.070	+0.057	Ely	140	92.3	6th ..	74.0	7 & 8 ..	88.9	77.4	83.2	
	Shahabad	Dohri ...	29.064	29.067	+0.036	Sly	85	91.3	6th ..	74.0	7th ..	88.4	77.2	82.9	
Buxar ...		29.088	29.081	+0.049	Ely	131	89.5	2nd ..	74.3	7th ..	87.9	76.5	82.2		
SOUTH BIHAR.	Arrah	Arrah ...	29.030	29.071	+0.055	Variable	60	92.4	6th ..	74.5	7th ..	90.0	77.6	83.8	
	Gaya	Gaya ...	29.041	29.060	+0.029	E	129	92.4	6th ..	70.8	3 & 5 ..	90.5	78.0	84.3	
	Patna	Bankipore ...	29.036	29.070	+0.028	E	133	90.6	2nd ..	77.2	4th ..	87.9	78.0	83.0	
	Monghyr	Monghyr	...	...	...	...	...	...	...	...	...	...	...	...	
	Sonthal Parganas	Naya Dumka	29.145	29.091	+0.044	Sly	56	88.1	2nd ..	72.8	7th ..	86.2	75.8	81.1	
	Hazaribagh	Hazaribagh	27.051	29.097	+0.041	SSW	183	84.2	2 & 4 ..	70.8	4 & 7 ..	92.5	72.1	77.3	
	Lohardaga	Ranchi	27.023	29.085	+0.039	SW	170	85.0	2nd ..	69.4	5th ..	88.6	71.3	77.0	
	Pulmou	Daltonganj	...	...	...	...	...	...	...	...	...	...	...	...	
	Singhbhum	Chaitanya	28.5.12	29.038	+0.069	SWly	40	90.4	4th ..	74.2	4 & 5 ..	87.4	76.8	81.6	
	Manikpur	Manikpur	...	...	...	...	...	...	...	...	...	...	...	...	
CHOTA NAGPUR.	Sibsagar	Sibsagar ...	29.038	29.070	+0.032	SWly	...	89.6	2nd ..	74.5	4th ..	87.8	75.5	81.7	
	Goalpara	Dhubri ...	29.067	29.036	+0.031	Variable	147	86.2	2nd ..	73.8	4th ..	89.1	75.6	79.4	
	Cachar	Silchar ...	29.032	29.017	+0.049	Calm	...	89.5	6th ..	73.8	4th ..	84.7	75.4	80.0	
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	





DISTRICT OBSERVATIONS.															District.
Variation from normal mean.	Mean 8 A.M., low pressure.	Average humidity at 8 A.M.	Average cloud amount at 8 A.M.	Rainfall of week at observing station.	OF WIND.				RAINFALL.						
					Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Since 1st of month.			Since 16th May 1893.			
									Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.	
-	82.8	85	6.9	0.87		2.33		3.01		2.98			12.45		Puri.
-1.0	81.4	87	2.9	1.38											
-0.7	82.1	86	8.4	1.70											
-1.0	82.1	79	7.6	1.92		2.71		2.08		3.31			14.22		Outtack.
-1.5	80.6	91	5.6	1.58		2.20		3.13		2.54			13.18		Balasore.
-1.6	80.4	89	5.6	1.03	1.52	2.61	3.25	3.18	1.53	2.81	-1.28	30.23	14.11	+22.12	Midnapore.
-1.9	80.6	89	9.7	2.35	3.78	2.39	4.43	3.78	3.89	2.73	+1.13	32.90	15.23	+17.67	24-Parkans.
-1.9	81.8	90	9.7	4.17											
					1.79	2.40	3.50	4.05	1.79	2.71	-0.92	33.07	14.40	+19.57	Howrah.
					2.40	2.39	4.00	3.60	3.28	2.70	+0.58	32.20	14.33	+17.87	Hoochly.
-2.0	80.5	86	9.3	1.54	2.40	2.80	3.80	3.68	3.46	2.92	-0.46	30.13	16.05	+13.08	Nadia.
					5.07	2.96	6.33	4.44	5.46	3.32	+2.14	35.64	19.10	+16.54	Khulusa.
-2.3	80.9	91	9.7	3.43	2.88	2.33	5.00	3.83	3.32	2.60	+0.82	27.38	17.38	+10.35	Jessore.
-3.5	79.8	87	9.7	5.92	4.06	2.11	3.50	3.10	4.23	2.35	+1.88	28.84	13.56	+15.28	Burdwan.
-1.9	79.8	91	3.9	3.20											
-2.1	79.5	90	8.7	0.83	2.23	2.79	3.75	3.84	2.31	3.10	-0.79	30.57	15.21	+15.36	Bankura.
-2.3	78.9	96	9.9	1.45	2.13	2.69	3.33	3.95	2.40	2.89	-0.49	31.10	15.18	+5.92	Birbhum.
					3.05	3.07	5.00	3.90	3.23	3.23			15.34		Murshidabad.
-2.3	78.3	93	10.0	11.52	7.22	3.09	4.50	3.73	7.71	3.29	+4.42	37.78	18.06	+19.73	Pabna.
-1.8	78.2	93	8.7	5.75	5.22	3.34	5.50	3.97	5.55	3.80	+1.95	28.04	20.71	+7.23	Bogra.
-2.7	80.6	91	8.3	1.23	3.49	3.18	4.67	3.74	4.71	3.55	+1.16	30.12	17.89	+12.24	Rajahm.
-	80.3	92	7.6	2.53	3.08	3.83	5.50	4.26	3.91	3.89	-0.67	10.64	18.12	+1.52	Malda.
-1.7	79.8	90	9.1	5.98	7.72	3.61	6.17	4.15	3.19	3.88	+4.31	26.07	21.38	+7.29	Dinajpur.
-1.9	79.3	92	8.7	6.26	8.60	4.11	5.75	3.68	4.95	4.71	+0.24	33.27	31.81	+0.46	Rangpur.
-1.4	78.1	92	8.6	13.79	14.00	8.44	7.00	4.95	17.50	9.05	+8.45	37.11	45.03	-8.52	Jalpaiguri.
					12.72	5.75	0.75	4.61	4.61	6.54	-2.03	40.03	40.52	-0.49	Kuch Bihar.
-1.5	53.4	97	0.4	8.08											
-	47.0	91	8.3	5.05	9.11	10.17	7.00	6.09	6.09	10.79	-4.70	46.02	43.06	+0.00	Darjeeling.
-1.9	78.1	93	8.0			6.06		4.96		6.83			40.97		Sikkim.
					12.80	3.53	5.00	5.30	12.80	4.14	+8.66	69.07	27.25	+34.82	Onitagonk.
-1.0	80.7	88	9.0	7.34	4.81	4.24	6.25	4.75	5.03	4.70	+0.33	44.39	27.35	+17.23	Chittagong Hill Tracts.
-1.6	79.4	92	5.1	5.59	7.38	5.09	6.50	5.03	7.71	5.56	+2.16	52.98	37.18	+15.20	Baquerghunge.
-1.7	79.8	90	8.6	2.41	2.73	2.70	4.87	3.37	3.33	2.90	+0.43	30.72	10.59	+17.13	Nonkhali.
-2.1	80.3	91	9.1	3.61	3.06	3.31	4.50	4.02	3.11	3.36	-0.45	35.05	20.53	+14.52	Faridpur.
-1.8	70.1	96	8.7	7.70		2.87		4.01		3.17			23.04		Dacca.
-2.1	78.5	94	9.1	6.60	8.33	3.13	6.00	3.98	6.78	3.53	+5.36	39.12	23.08	+13.44	Tippera.
-2.5	80.2	92	7.3	11.42	11.89	4.98	10.90	4.33	15.43	5.25	+10.18	30.73	21.73	+9.01	Mymensingh.
-2.1	80.2	92	10.0	3.76	8.09	3.04	5.25	3.73	8.61	3.28	+8.33	18.02	13.17	+4.85	Purnea.
-1.8	79.5	91	8.4	3.19	4.67	3.63	4.67	3.42	5.16	3.78	+1.38	11.80	13.03	-1.17	Bhagalpur.
-	79.5	92	8.1	2.61	4.22	3.47	5.33	3.38	4.24	3.61	+0.63	12.82	13.31	+0.51	Darbhanga.
-1.0	80.3	98	8.0	9.69	6.63	3.04	5.00	3.22	6.04	4.06	+2.53	17.43	13.18	+4.31	Muzaffarpur.
-1.8	80.0	92	9.1	3.84	3.46	3.44	4.00	3.25	4.57	3.61	+0.96	11.77	11.00	+0.77	Champaran.
-0.9	81.6	91	8.1	2.17											
-2.0	79.4	91	9.3	2.87		2.41		3.24		2.74			8.45		Shahabad.
-0.7	80.5	89	4.6	5.21											
-0.9	82.0	89	6.6	9.27	1.80	2.88	3.25	3.26	1.81	3.03	-1.22	11.02	9.70	+1.32	Gaya.
-2.3	81.2	88	9.4	5.76	4.52	3.20	3.50	3.70	4.69	3.46	+1.23	16.18	10.88	+5.32	Patna.
					6.17	3.14	5.00	3.55	6.35	3.41	+2.94	17.54	11.12	+6.42	Monkhyr.
-2.4	78.5	93	7.7	5.23	5.93	3.12	5.20	3.23	6.03	3.46	+2.57		14.49		Sonthal Parkans.
-2.3	74.8	91	10.0	4.95		3.23		4.09		3.66			13.36		Hazaribagh.
-2.0	75.0	91	8.6	3.72	2.64	2.46		3.38	2.34	2.83			12.97		Lohardaga.
								3.00	2.83				9.58		Palamau.
-2.8	79.2	87	9.0	1.17	1.17	2.23	4.00	3.90	1.17	2.53	-1.21	25.24	13.09	+12.15	Sikhhum.
					2.65	2.23	5.00	3.50	2.08	2.52	+0.16	27.21	12.00	+15.21	Manbhum.
-2.3	77.8	94	7.8	3.73											Assam.
-2.9	77.2	95	8.7	10.22											
-2.1	77.6	94	9.6	7.00											







# SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSERVATIONS TAKEN IN ASSAM, FOR THE WEEK ENDING 8 A.M., SATURDAY, THE 8TH OF JULY 1893.

ORDINARY monsoon weather has prevailed throughout the week, except that during the latter half rainfall was becoming more partial in Orissa and South-West Bengal. The rainfall in the northern districts has been general and in some places heavy, so that the averages for North Bengal and North Bihar are between two and three inches above the normal.

At the beginning of the week pressure was in excess by more than a tenth of an inch in Lower Bengal and the west of Bihar, while readings were practically normal in North Bengal and Assam. A low pressure area lay along the foot of the Himalayas, and winds were westerly in all districts. With these westerly winds rain fell in Bihar and North Bengal in fairly large amounts on the 2nd, but on the two following days it was much heavier in East and North Bengal, though as before there was greater irregularity than usual. From the 2nd to the 4th pressure continued to fall, at first more rapidly in the northern districts, but afterwards in Lower Bengal, where, at the beginning of the week, there was considerable excess. The steady fall during these days resulted in the normal distribution on the 5th, after which pressure rose brisally till the end of the week, the change beginning in the north-east and spreading south-westwards. While the brisk rise of pressure was confined to Assam and North Bengal, that is on the 6th, gradients were steeper than usual from east to west, and steady south-east winds were blowing over the greater part of Bengal. This must have led to the much heavier rain in North Bengal and North Bihar on the 7th and 8th, as on those days pressure was above the normal by nearly a tenth of an inch.

Pressure fell moderately to briskly during the first four days of the week, the change beginning in the north-east and spreading slowly towards the south-west. During the latter half the upward change followed the same course as the fall which preceded it, and the distribution at the end of the week was almost the same as at the beginning. The means for the week are above the normal by amounts generally ranging between .04 inch and .06 inch.

Temperature has again been steadily below the normal, the greater defect occurring by day owing to the very cloudy weather which has prevailed. Mean defect for the larger divisions varies from 1.5° in South Bihar to 4.2° in Orissa.

Rainfall has been almost continuous in all districts except Orissa and South-West Bengal, but more especially in East and North Bengal and North Bihar, all of which districts have received considerably more than the average for the week. During the two previous weeks the local character of the rainfall has been noted, and during the present week some very heavy local falls have again been recorded, owing to the occurrence of thunder-storms. These heavy falls have been almost all in East and North Bengal and Bihar. In Orissa, Chota Nagpur and South-West Bengal the average fall is very nearly normal, but in the other districts there is a large excess—in South Bihar of 1.62, East Bengal 2.15, North Bihar 2.77, and North Bengal 3.25 inches.

Falls of more than 15 inches in the course of the week fell at Mickliganj and Mathabhanga in Kuch Bihar and Buxa in the Darjeeling district, and more than 10 inches at the following places:—Sirajganj, Raiganj, Bhawaniganj, Kurigaon, Jalpaiguri, Alipore (Duar), Fallacotta, Debiganj, Bhogampur (Nagrakatta), Kuch Bihar, Rangamatia, Atia, Araria, Purnea and Pratappganj.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 8th of July 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.							RAINFALL.								
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.		Since 16th May 1893.	
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.
Orissa ... ..	91.7	73.8	87.6	78.3	83.0	-4.2	2.15	2.40	-0.25	3.00	3.11	-0.11	2.40	2.90	24.96	13.37
South-West Bengal ... ..	92.3	73.7	87.0	77.6	82.3	-2.1	2.80	2.60	+0.20	4.17	3.71	+0.46	3.17	2.84	20.89	15.48
North Bengal ... ..	90.6	73.6	86.4	76.3	81.3	-2.0	7.32	4.07	+3.25	5.73	4.06	+1.66	8.03	4.51	30.47	27.10
East Bengal ... ..	88.7	74.1	84.1	76.4	80.3	-1.7	5.81	3.66	+2.15	5.55	4.26	+1.29	6.12	4.04	43.07	26.79
North Bihar ... ..	92.3	73.5	87.5	77.1	82.4	-1.8	6.57	3.80	+2.77	5.15	3.59	+1.56	7.54	4.02	17.20	14.26
South Bihar ... ..	92.4	74.0	88.5	77.2	82.0	-1.5	4.47	3.85	+1.62	4.27	3.60	+0.67	5.90	3.17	17.06	11.10
Chota Nagpur ... ..	90.4*	60.4*	84.2*	73.1*	78.0*	-2.4*	2.71	2.79	+0.12	4.57	3.00	+0.57	3.04	3.13	22.04	12.68
Assam ... ..	80.6	73.8	85.2	75.5	80.4	-2.7										

\* Daltonganj not included.

METEOROLOGICAL OFFICE, BENGAL,  
The 11th July 1893.

C. LITTLE,  
Offg. Meteorological Reporter to the Govt. of Bengal.

**Results of the Meteorological Observations taken at the Alipore Observatory from  
2nd to 8th July 1893.**

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
July	2nd	145.8	2.9	29.685	83.0	87.7	8.0	79.7	70.8	0.971	78.4	86	SW and SW by W	198	0.30	Chiefly cloudy, o, g, p.
"	3rd	123.4	Nil	.647	82.1	84.7	6.8	77.9	79.3	.967	78.2	88	WSW and SW ...	174	0.10	Cloudy, o, g, d, p.
"	4th	150.2	1.8	.570	81.0	85.7	10.5	75.2	78.2	.930	77.0	88	WSW and SW ...	78	1.17	Cloudy, o, g, d, p.
"	5th	142.5	1.3	.527	80.6	83.5	8.3	75.2	78.1	.930	77.0	89	SW by W and SSW	90	0.55	Chiefly cloudy, o, g, d, p.
"	6th	140.7	0.6	.616	81.4	85.2	9.0	76.2	79.0	.962	78.1	89	SSE	95	0.20	Chiefly cloudy, o, g, p.
"	7th	145.8	3.8	.669	83.0	86.7	8.0	78.7	80.1	.962	79.0	88	SSE	66	Nil	Chiefly cloudy, o, t.
"	8th	141.0	3.1	.691	82.5	86.8	8.7	78.1	78.8	.936	77.2	84	SSE	37	0.03	Chiefly cloudy, o, g, t, d.

The mean pressure of the seven days	...	...	...	...	Inches.
The average pressure of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	29.629
The total number of hours of bright sunshine	...	...	...	...	Hours.
The maximum possible number of hours of sunshine	...	...	...	...	13.5
					94.0
					0
The mean temperature of the seven days	...	...	...	...	81.9°
The average temperature of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	83.7
The extreme variation of temperature	...	...	...	...	12.5
The maximum temperature	...	...	...	...	87.7
The highest velocity of the wind in one hour	...	...	...	...	Miles.
					14
The highest pressure of wind on one square foot	...	...	...	...	lbs.
					?
The mean relative humidity	...	...	...	...	%
The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	87
					85
The total fall of rain from 2nd to 8th July 1893	...	...	...	...	Inches.
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	2.35
					2.86
The total fall from 1st January to 8th July 1893	...	...	...	...	52.13
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	24.82

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph, and from observations made at 6h, 10h, 16h and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o, overcast; g, gloomy; d, drizzling rain; p, passing, temporary showers; t, thunder.

CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 8th July 1893,  
as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 8TH JULY 1893.			WEEK ENDING SATURDAY, THE 8TH JULY 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ... ..	205	39,250	548	137	41,825	614
Tea ... ..	8	4,075	56	8	4,800	37
Firewood ... ..	130	77,825	1,141	172	1,11,075	1,663
Other articles ... ..	837	1,77,745	2,890	731	1,79,670	2,681
Total ... ..	1,180	2,98,895	4,123	1,048	3,37,170	4,935

## EAST INDIAN RAILWAY.

Statement of Goods Traffic in Staples carried during the four weeks ending 27th May 1893; as compared with the same period of 1892.

STAPLES.	1892.		1893.		INCREASE.		DECREASE.	
	Weight.	Freight.	Weight.	Freight.	Weight.	Freight.	Weight.	Freight.
	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.
Coke ... ..	48,318	38,623	14,719	10,896	...	...	33,594	27,727
Cotton, raw ... ..	8,187	7,337	5,878	4,910	...	...	2,308	2,418
Cotton twist and yarn—	17,631	8,533	18,200	10,007	659	1,374	...	...
1.—European ... ..	...	...	...	...	...	...	...	...
2.—Indian ... ..	...	...	...	...	...	...	...	...
Cotton piece-goods—	1,60,174	1,70,799	1,33,646	1,57,250	...	...	26,528	22,173
1.—European ... ..	7,963	5,052	11,168	6,538	3,175	1,486	...	...
2.—Indian ... ..	...	...	...	...	...	...	...	...
Drugs and chemicals—	694	435	815	359	121	...	...	76
1.—Intoxicating other than opium ...	7,731	8,022	6,007	6,713	300	...	...	1,309
2.—Non-intoxicating ... ..	...	...	...	...	...	...	...	...
Dyes and tans—	439	381	586	761	146	383	...	...
1.—Indigo ... ..	13,921	3,443	15,752	3,610	1,831	107	...	...
2.—Myrabolans ... ..	200	260	258	212	49	...	...	...
3.—Aniline dyes ... ..	2,735	1,002	4,260	1,872	1,525	870	...	57
4.—Cutch ... ..	5,845	2,838	9,803	3,039	4,158	1,121	...	...
5.—Paints and colours ... ..	3,995	1,945	3,463	1,033	...	...	632	307
6.—Others ... ..	...	...	...	...	...	...	...	...
Grains—	20,07,091	8,58,271	8,38,306	3,20,629	...	...	20,04,783	5,37,645
1.—Wheat ... ..	5,18,610	87,269	3,91,657	56,040	...	...	1,27,502	30,629
2.—Rice ... ..	32,711	5,052	6,422	1,143	...	...	26,289	3,339
3.—Jawar and bajra ... ..	1,59,783	46,421	1,20,673	52,810	...	6,380	39,110	...
4.—Gram ... ..	5,972	1,513	5,811	1,402	...	...	101	81
5.—Indigo seed ... ..	71,749	31,044	55,933	30,899	...	...	17,816	145
6.—Seeds other than oil-seeds ...	3,90,172	1,08,805	3,10,151	85,320	...	...	80,021	23,186
7.—Others ... ..	...	...	...	...	...	...	...	...
Hides and skins—	26,323	15,563	32,554	24,067	6,235	8,474	...	...
1.—Hides of cattle ... ..	11,789	9,000	13,119	7,095	300	...	...	...
2.—Skins of sheep, &c. ... ..	1,170	811	878	570	...	...	292	241
Horns ... ..	7,762	3,292	23,796	6,767	15,074	3,475	...	...
1.—Raw ... ..	1,00,068	84,190	1,40,485	78,981	...	...	20,193	10,209
2.—Gunnybags and cloth ... ..	7,851	2,495	8,763	3,210	912	721	...	...
Lac—	9,183	7,150	9,080	7,108	...	...	...	...
1.—Stick ... ..	1,564	3,111	1,158	1,902	...	...	470	1,212
2.—Manufactured ... ..	3,501	3,539	3,510	3,731	15	102	...	...
Leather—	...	...	...	...	...	...	...	...
1.—Unmanufactured ... ..	...	...	...	...	...	...	...	...
2.—Manufactured ... ..	...	...	...	...	...	...	...	...
Liquors—	8,132	3,940	8,732	5,135	600	1,195	...	...
1.—Beer ... ..	2,779	4,191	2,568	3,888	...	...	411	306
2.—Wines ... ..	984	1,306	1,772	2,180	888	793	...	...
3.—Spirits ... ..	...	...	...	...	...	...	...	...
Metals—	8,850	4,734	3,670	4,238	...	...	180	406
1.—Copper, unwrought ... ..	3,309	1,751	3,026	1,692	317	...	...	...
2.—Brass, unwrought ... ..	11,000	5,524	15,406	7,738	3,807	2,274	...	...
3.—Brass and copper, wrought ...	1,41,450	62,883	2,27,388	93,562	84,338	30,660	...	...
4.—Iron ... ..	2,550	2,301	3,201	2,604	651	300	...	...
5.—Tin ... ..	8,535	6,282	9,610	6,005	1,075	...	...	276
6.—Others ... ..	...	...	...	...	...	...	...	...
Oil—	3,186	983	4,713	1,407	1,527	424	...	...
1.—Castor ... ..	62,747	39,445	71,070	32,573	11,322	2,028	...	...
2.—Kerosine ... ..	9,963	3,879	10,362	4,650	1,660	771	...	...
3.—Others ... ..	...	...	...	...	...	...	...	...
Oil-seeds—	13,03,761	4,58,610	13,18,196	4,02,618	8,435	...	56,622	...
1.—Linseed ... ..	3,71,587	1,10,989	7,65,187	1,41,388	3,77,600	31,819	...	...
2.—Rape and mustard ... ..	8,191	2,307	8,906	2,282	705	...	...	95
3.—Til or jujili ... ..	1,24,067	28,81	1,14,006	35,984	10,069	6,703	...	...
4.—Castor ... ..	1,10,370	37,161	1,16,328	35,301	5,958	16,233	...	...
5.—Poppy ... ..	6,672	7,290	11,202	2,691	4,530	810	...	...
6.—Others ... ..	31,640	22,931	45,500	28,605	11,431	5,721	...	...
Opium ... ..	9,667	5,619	5,601	6,005	319	...	6	...
Paper and pasteboard ... ..	...	...	...	...	...	...	...	...
Provisions—	21,475	13,536	21,279	13,171	...	...	106	265
1.—Ghee ... ..	25,480	21,252	21,600	19,700	...	...	1,325	1,612
2.—Dried fruits and nuts ... ..	5,060	2,574	2,805	1,370	...	...	2,182	1,195
3.—Coconuts ... ..	18,806	12,115	15,984	11,180	...	...	2,822	1,360
4.—Turmeric ... ..	60,907	30,651	51,016	21,602	...	...	9,891	5,795
5.—Others ... ..	4,30,760	1,02,445	5,30,141	96,422	1,06,381	...	...	...
Salt ... ..	...	...	...	...	...	...	...	...
Salt-petre, &c.—	64,088	27,110	61,698	22,215	...	...	3,590	4,895
1.—Salt-petre ... ..	1,020	1,106	1,720	988	100	...	208	...
2.—Borax ... ..	30,785	8,002	20,188	5,042	...	...	10,297	300
3.—Other saline substances ... ..	...	...	...	...	...	...	...	...
Silk, raw—	2	9	4	14	2	5	...	...
1.—Foreign ... ..	1,225	1,187	2,002	1,080	937	...	...	102
2.—Indian ... ..	...	...	...	...	...	...	...	...
Silk piece-goods—	11	31	6	18	...	...	...	...
1.—Foreign ... ..	208	300	302	302	184	67	5	13
2.—Indian ... ..	...	...	...	...	...	...	...	...
Spices—	3,430	4,276	2,151	1,965	...	...	979	2,201
1.—Pepper ... ..	19,301	11,209	10,230	15,260	...	3,005	71	...
2.—Other ... ..	...	...	...	...	...	...	...	...
Sugar—	32,552	12,838	22,837	8,314	...	...	9,715	4,524
1.—Draimed ... ..	4,80,568	55,819	4,80,629	87,827	6,071	14,008	...	...
2.—Undraimed ... ..	2,93,057	38,014	4,00,318	54,260	1,07,261	20,193	...	...
Stone and lime ... ..	...	...	...	...	...	...	...	...
Tea—	941	930	1,287	886	346	...	...	44
1.—Foreign ... ..	...	...	...	...	...	...	...	...
2.—Indian ... ..	...	...	...	...	...	...	...	...
Timber, &c.—	91,143	14,538	79,841	12,564	...	...	11,302	2,174
1.—Timber ... ..	32,007	2,864	37,213	2,860	4,706	...	...	5
2.—Firewood ... ..	1,37,022	51,910	1,91,826	79,344	53,007	21,305	...	...
Tobacco ... ..	1,454	2,062	863	1,000	...	...	...	1,055
Umbrellas ... ..	...	...	...	...	...	...	...	...
Wool—	2,569	1,522	1,345	897	...	...	1,194	625
1.—Raw ... ..	638	818	...	...	...	...	638	818
2.—Piece-goods—	1,949	1,467	1,131	1,013	...	...	218	454
a.—European ... ..	3	1	...	...	...	...	3	1
b.—Indian ... ..	...	...	...	...	...	...	...	...
3.—Shawls ... ..	...	...	...	...	...	...	...	...
All other articles of merchandise ...	5,48,740	2,05,354	5,50,907	1,71,243	51,237	...	...	34,111
Total ... ..	91,57,086	29,74,786	76,29,667	23,08,941	...	...	15,28,029	6,07,845
Military stores ... ..	10,035	23,087	7,600	3,049	...	...	2,255	2,038
Coal—	36,20,335	5,58,829	43,81,500	6,07,074	8,62,165	1,14,145	...	...
1.—For public ... ..	4,94,178	44,812	5,40,232	58,420	61,054	13,508	...	...
2.—Railway ... ..	...	...	...	...	...	...	...	...
Railway Materials—	7,04,832	71,653	7,03,005	34,377	59,073	...	...	37,062
1.—For construction and revenue ...	...	5,073	...	5,101	...	28	...	...
Live-stock ... ..	...	...	...	...	...	...	...	...
Total ... ..	1,38,96,076	36,73,946	1,33,27,984	31,36,062	...	...	5,08,092	5,36,984

T. SIMPSON, Assistant Auditor.

TRAFFIC AUDIT OFFICE, GOODS DIVISION, JAMALPUR, the 7th July 1893.



**Abstract of the Results of the Barometric and Thermometric Observations taken at 10 a.m. at the Meteorological Office, Chowringhee, in the month of June 1893.**

		Inches.	Dates.
The mean pressure at 10 A.M. during the month	...	29.647	
The mean temperature at 10 A.M. during the month	...	85.3	
The highest temperature during the month	...	94.0	4th, 5th and 11th to 13th.
The lowest temperature during the month	...	75.3	23rd and 26th.
The absolute range of temperature during the month	...	18.7	
The mean daily range of temperature during the month	...	11.9	
The greatest range of temperature in one day during the month	...	16.7	12th.
The mean 10 A.M. humidity during the month	...	82	%
The mean 10 A.M. vapour tension during the month	...	.985	Inches.
The total rainfall of the month	...	28.69	
The greatest fall in 24 hours	...	8.50	20th.
The number of rainy days in the month	...	15	

J. H. GILLILAND,

*For Meteorological Reporter to the Govt. of India.*

METEOROLOGICAL OFFICE, INDIA,

*The 10th July 1893.*

**Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 2nd to 8th July 1893.**

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32 Fahr.	TEMPERATURE.						HYGROMETRY.			Rainfall, past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
July	2nd	29.711	83.9	89.0	10.2	78.8	83.6	80.0	.977	78.5	85	
"	3rd	.688	81.9	85.9	8.1	77.8	82.6	79.5	.968	78.2	87	0.35
"	4th	.593	81.8	88.0	12.4	75.6	82.6	79.5	.968	78.2	87	0.80
"	5th	.563	81.6	88.0	12.8	75.2	80.6	78.5	.950	77.6	91	1.08
"	6th	.602	81.6	88.0	12.8	75.2	81.0	79.5	.982	78.7	91	
"	7th	.692	83.7	89.0	10.7	78.3	86.6	81.5	1.009	79.5	80	0.03
"	8th	.733	83.3	88.7	10.9	77.8	85.1	81.5	1.030	80.1	85	

The mean 10 A.M. pressure of the seven days ... .. Inches. 29.662

The mean temperature of the seven days ... .. 82.5

The extreme variation of temperature ... .. 13.8

The maximum temperature ... .. 89.0

The mean 10 A.M. relative humidity of the seven days ... .. 87

The total fall of rain from 2nd to 8th July 1893 ... .. Inches. 2.26

The daily mean temperatures are the crude means of maximum and minimum temperatures.

J. H. GILLILAND,

*For Meteorological Reporter to the Govt. of India.*

METEOROLOGICAL OFFICE, INDIA,

*The 10th July 1893.*

**IRRIGATION DEPARTMENT, BENGAL.**  
**IRRIGATION OPERATIONS FOR THE OFFICIAL YEAR 1893-94.**  
*Areas leased for irrigation up to end of May 1893.*

CIRCLE.	District.	Canal.	Estimated full discharge.	Average discharge in month.	Discharge utilized.	Approximate area of land irrigated during the year up to the end of the month.	Approximate area of land under irrigation up to the same date last year.	DETAILS OF AREAS LEASED.						Rainfall, 1893-94.		REMARKS.		
								Annual leases.						Rainfall, 1893-94.				
								Five years, all crops.	Five years, kharif.	Rabi.	Sugar-cane.	Bhadra.	Hot-weather.	Total.	Grand Total.		During month.	Up to end of month.
ORISSA	Cuttack	Taldanda, 1st reach	1,312	147	...	...	...	...	2,479	...	...	...	...	...	3570	0.80	Up to end of month.	
		Ditto, 2nd "	568	147	...	...	...	...	2,700	...	...	...	...	...	3435	1.19		
		Machason	780	...	...	...	...	...	...	...	...	...	...	...	3180	1.15		
		Kendrapara	1,067	580	573	1*	1,336	55,372	...	...	...	...	...	...	3536	1.23		
		Gobri	372.82	42	96	45	52	773	...	...	...	...	...	...	4012	0.54		
		Do. Extension	648	38	22	9	21	775	...	...	...	...	...	...	4034	0.54		
		Pattamundi	885	72	34	28	57	2,440	...	...	...	...	...	...	No gauge.	No gauge.		
		High Level, Range I	698	...	...	...	...	866	...	...	...	...	...	...	3485	36.65		
		Ditto, ditto II	747.15	...	...	...	...	284	42	...	...	...	...	...	20.97	24.36		1.37
		Jajpur Canal	700	...	...	...	...	1,381	...	...	...	...	...	...	...	...		...
BALASORE	Balsore	High Level, Range III	727.16	...	...	116	128*	...	...	...	...	...	...	...	1412	14.30	3.22	
		Total	...	...	...	214	1,48*	9,069	42	85	...	...	...	...	...	...	...	
		Total of the corresponding period of last year	...	...	...	...	...	132,157	98	101	...	...	...	...	...	...	...	
SOUTH-WEST. BENG.	Midnapore	Midnapore	1,411	82	...	...	...	4,555	...	...	...	...	...	...	1044	12.34	5.08	
		Panchkura	522	9	...	...	...	...	6,546	...	...	...	...	...	1517	15.55	4.45	
		Tidal Reaches, Ranges I & II	...	...	...	...	...	...	7.3	...	...	...	...	...	...	...	...	
SOUTH	Shahabad	Total	...	...	...	...	...	55,667	...	...	...	...	...	...	...	...	...	
		Total of the corresponding period of last year	...	...	...	...	...	...	66,772	...	...	...	...	...	...	...	...	
		Western Main	4,342	832	101	473	632	11,928	...	...	...	...	...	...	...	1.89	1.75	0.15
SOUTH	Patna and Gaya.	Buxar	1,226	207	15	2,164	4,125	53,590	...	...	...	...	...	...	...	...	...	
		Arrah	2,060	642	501	10,836	11,133†	129,500	...	...	...	...	...	...	...	3.53	3.58	0.34
		Total	...	...	...	...	...	...	2,000	...	...	...	...	...	...	...	...	...
SOUTH	Patna	Patna	1,466	...	...	96	...	55,931	...	...	...	...	...	...	...	...	...	
		Total	...	...	...	15,335	16,073	235,528	...	...	...	...	...	...	...	...	...	...
		Total of the corresponding period of last year	...	...	...	...	...	...	180,238	...	...	...	...	...	...	...	...	...
SOUTH	Grand Total	Grand Total	...	...	...	15,579	17,712	2,555,558	104,495	96	...	...	...	...	...	...	...	
		Grand Total of the corresponding period of last year	...	...	...	...	...	...	19,133	23	101	...	...	...	...	...	...	...

\* The area shown in the return for April 1893 was wrong, and is corrected by the Executive Engineer.

† Last year's return included by mistake 8,814 acres on account of sugar-cane in five years' lease, which was not under irrigation until after the 23rd June.

G. O. MACONCHY,  
 Under-Secy. to the Govt. of Bengal.

CALCUTTA,  
 The 11th July 1893.

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for the last 13 days of June 1893, on 1,610½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the period ...	552,268*	Rs. A. P. 5,90,407 10 0*	Mds. s. 43,83,745 20	Rs. A. P. 10,45,215 1 0	Rs. A. P. 34,515 13 0	Rs. A. P. 10,70,198 8 0	1,35,792½	205,104½	340,896½
Or per mile of railway ...	.....	366 10 2	.....	649 0 0	21 6 11	1,037 1 1	.....	.....	.....
For previous 24 weeks of half-year ...	7,085,804	75,66,368 12 0	7,31,54,581 0	1,07,46,585 7 0	3,39,864 4 0	2,46,52,008 7 0	1,844,584½	2,862,358½	4,706,943
Total for 26½ weeks ...	7,638,072	81,56,836 6 0	7,75,38,620 20	1,77,91,800 8 0	3,73,570 1 0	3,63,22,206 15 0	1,980,376½	3,067,462½	5,047,839½
COMPARISON.									
Total for corresponding last 12 days of previous year ...	499,847½	4,75,015 1 2	46,11,251 10	8,91,723 6 1	—54,456 8 8	13,15,281 14 7	125,212½	183,529	308,741½
Per mile of railway corresponding period of previous year ...	.....	294 15 2	.....	555 8 11	—33 13 0	816 11 1	.....	.....	.....
Total for corresponding 26 weeks of previous year ...	7,646,593	79,79,108 10 1	7,71,10,393 0	1,85,55,596 7 1	4,68,330 9 2	2,69,93,701 10 4	1,994,181½	3,115,241	5,109,422½

\* The increase is chiefly due to movements of pilgrims; also abnormal pilgrim traffic to Baidyanath and Rancegunge.

## TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for the last 13 days of June 1893, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the period ...	20,598	Rs. A. P. 7,937 5 0	Mds. s. 9,185 10	Rs. A. P. 350 14 0	Rs. A. P. 15 0 0	Rs. A. P. 8,329 8 0	1,034	148	1,782
Or per mile of railway ...	.....	357 10 1	.....	16 0 8	0 10 9	374 5 6	.....	.....	.....
For previous 24 weeks of half-year ...	*543,195	*1,41,881 1 0	†2,70,104 10	†9,390 6 0	‡253 0 0	1,51,624 7 0	21,361	2,515	23,876
Total for 26½ weeks ...	572,793	1,49,838 6 0	2,79,289 20	9,747 4 0	568 0 0	1,60,163 10 0	22,995	2,603	25,598
COMPARISON.									
Total for corresponding last 12 days of previous year ...	32,706	7,971 9 2	12,940 0	485 11 0	238 0 6	8,695 13 8	1,525	125	1,650
Per mile of railway corresponding period of previous year ...	.....	358 4 4	.....	21 13 3	10 11 7	390 13 2	.....	.....	.....
Total for corresponding 26 weeks of previous year ...	576,708	1,47,927 4 2	4,51,852 0	14,564 3 3	601 2 0	1,63,092 9 5	23,030	2,897	25,927

\* Added number of passengers 160 and deducted Rs. 103

† Deducted mounds 18 and added

‡ Added

} on account of difference between the approximate and audited figures to week ending 27th May 1893, including supplemental for 31st March 1893.

## DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for the last 13 days of June 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the period ...	35,647*	Rs. A. P. *23,728 6 0	Mds. s. 93,880 30	Rs. A. P. 14,610 12 0	Rs. A. P. 95 0 0	Rs. A. P. 38,044 2 0	11,485	4,871	16,356
Or per mile of railway ...	.....	147 1 3	.....	91 12 3	0 9 5	239 6 11	.....	.....	.....
For previous 24 weeks of half-year ...	†465,814	†3,31,410 5 0	†17,08,755 20	†3,17,708 2 0	†7,007 0 0	3,69,865 7 0	137,366½	77,340	214,646½
Total for 26½ weeks ...	490,961	3,58,148 11 0	18,02,642 10	2,32,608 14 0	7,631 0 0	5,93,449 9 0	148,791½	82,211	231,002½
COMPARISON.									
Total for corresponding last 12 days of previous year ...	29,638	19,945 9 7	73,675 10	14,141 12 0	3,128 13 3	37,214 2 10	11,065	4,686½	15,751½
Per mile of railway corresponding period of previous year ...	.....	123 9 1	.....	87 9 11	19 6 2	230 9 2	.....	.....	.....
Total for corresponding 26 weeks of previous year ...	439,459	3,37,133 11 10	11,97,700 30	2,12,443 6 2	5,902 8 0	5,55,568 10 0	165,238	59,701½	224,939½

\* The increase is chiefly due to movements of pilgrims.

† Added number of passengers 20 and

‡ Ditto mounds 55,345 and deducted

§ Ditto

} on account of difference between the approximate and audited figures to week ending 27th May 1893, including supplemental for 31st March 1893.

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K.-D., AND ASSAM-BIHAR SECTIONS.)

*Approximate Return of Traffic for the last 13 days of June 1893, on 777 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. $\frac{1}{2}$ .	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for 13 days ...	833,941	1,46,310 0 0	9,24,200 0	1,85,130 0 0	95,940 0 0	4,07,400 0 0	52,000	45,213	97,213
Or per mile of railway ...	430	188 0 0	1,189 0	213 0 0	198 0 0	460 0 0	...	...	...
For previous 24 weeks of half-year* ...	4,328,760	20,40,131 0 0	1,78,27,408 0	2,23,296 0 0	3,72,506 0 0	40,35,033 0 0	677,930	673,180	1,351,116
Total for 26 weeks ...	4,662,701	21,86,441 0 0	1,82,51,698 0	23,89,426 0 0	4,68,466 0 0	50,43,333 0 0	729,930	719,420	1,448,350
COMPARISON.									
Total for corresponding 12 days of previous year ...	331,179	1,25,710 0 0	8,50,094 0	1,47,019 0 0	1,17,382 0 0	3,90,111 0 0	48,227	40,177	88,404
Per mile of railway corresponding period of previous year ...	426	162 0 0	1,107 0	189 0 0	1135 0 0	483 0 0	...	...	...
Total to corresponding date of previous year ...	4,416,580	20,96,013 0 0	1,49,80,940 0	20,53,252 0 0	4,53,623 0 0	46,01,888 0 0	746,439	696,985	1,443,424

\* Audited up to week ending 13th May 1893.

† Excluding steamer earnings.

## BENGAL CENTRAL RAILWAY.

*Approximate Return of Traffic for the last 13 days of June 1893, on 125 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. $\frac{1}{2}$ .	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for 13 days ...	55,965	19,750 0 0	72,574 0	4,890 0 0	450 0 0	23,060 0 0	8,100	2,305	10,405
Or per mile of railway ...	447	158 0 0	581 0	39 0 0	4 0 0	201 0 0	...	...	...
For previous 24 weeks of half-year* ...	775,848	2,64,401 0 0	15,75,864 0	98,025 0 0	2,633 0 0	3,66,059 0 0	88,813	47,479	136,292
Total for 26 weeks ...	831,813	2,84,161 0 0	16,48,438 0	1,02,015 0 0	3,083 0 0	3,90,149 0 0	91,913	49,874	141,787
COMPARISON.									
Total for corresponding 12 days of previous year ...	51,404	17,304 0 0	90,472 0	4,670 0 0	461 0 0	23,125 0 0	7,381	2,344	10,405
Per mile of railway corresponding week of previous year ...	412	144 0 0	724 0	37 0 0	4 0 0	185 0 0	...	...	...
Total to corresponding date of previous year ...	791,921	2,81,655 0 0	15,25,030 0	91,647 0 0	2,610 0 0	3,75,912 0 0	96,661	50,835	147,496

\* Audited up to week ending 13th May 1893.

## DACCA STATE RAILWAY.

*Approximate Return of Traffic for the last 13 days of June 1893, on 86 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. $\frac{1}{2}$ .	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for 13 days ...	34,484	9,630 0 0	13,860 0	1,540 0 0	100 0 0	11,310 0 0	4,900	1,178	6,078
Or per mile of railway ...	400	112 0 0	161 0	19 0 0	1 0 0	132 0 0	...	...	...
For previous 24 weeks of half-year* ...	425,913	1,31,051 0 0	360,616 0	32,726 0 0	4,201 0 0	1,08,678 0 0	59,637	17,926	77,563
Total for 26 weeks ...	460,347	1,41,681 0 0	3,73,603 0	31,306 0 0	4,301 0 0	1,80,188 0 0	64,407	19,104	83,511
COMPARISON.									
Total for corresponding 12 days of previous year ...	31,169	9,406 0 0	16,427 0	1,665 0 0	872 0 0	11,073 0 0	4,338	1,262	5,600
Per mile of railway corresponding week of previous year ...	455	110 0 0	191 0	19 0 0	10 0 0	130 0 0	...	...	...
Total to corresponding date of previous year ...	445,121	1,39,591 0 0	3,85,844 0	25,539 0 0	4,500 0 0	1,69,706 0 0	64,938	18,952	83,890

\* Audited up to week ending 13th May 1893.

BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIRHUT STATE RAILWAY.)

Approximate return of traffic for the last 19 days of June 1893, on 756 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchan-dise.	Total.
		Rs.	Mds.	Rs. *	Rs.	Rs.			
Total traffic for the period on 756 miles open ... ..	174,550	70,470	7,07,350	89,000	24,500	1,00,130	24,320	31,028	55,367
Or per mile of railway ... ..	230*80	101*15	935*05	117*84	32*40	251*48	.....	.....	.....
For previous 24 weeks of half-year* ... ..	2,427,041	10,24,005	1,15,24,619	16,48,377	3,26,010	20,93,302	326,076	467,515	793,591
Total for 24 weeks ... ..	2,599,591	11,00,475	1,22,31,969	17,32,467	3,50,570	31,83,512	350,405	498,543	848,948
COMPARISON.									
Total for corresponding period of previous year on 755 miles open† ... ..	177,643	61,067	7,53,331	87,645	23,350	1,07,052	19,439	33,175	52,614
Or mile of corresponding week of previous year ... ..	235*29	82*06	1,004*41	109*46	31*93	222*45	.....	.....	.....
Total to corresponding date of previous year ... ..	2,487,297	10,66,581	1,06,11,758	15,46,254	3,20,472	20,33,307	316,315	549,567	865,882

\* Includes audited figures up to 13th May 1893.  
† Includes supplementary figures.





# SUPPLEMENT TO The Calcutta Gazette.

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WEDNESDAY, JULY 19, 1893.

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## OFFICIAL PAPERS.

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### CENSUS OF BENGAL, 1891.

#### FINANCIAL DEPARTMENT—CENSUS.

*Darjeeling, the 12th July 1893.*

#### RESOLUTION.

#### READ—

The Report on the Census of Bengal taken on the 26th February 1891, by  
C. J. O'Donnell, Esq., M.A., C.S.

The Report on the Census of the Town and Suburbs of Calcutta, by H. F. T. Maguire,  
Esq., C.S.

The third complete census of the Lower Provinces of Bengal was taken on the night of the 26th February 1891 with entire success, and shows the population of the Provinces within the Lieutenant-Governorship of Bengal,

including the Feudatory States, to have been on that date 74,643,366 persons, of whom 37,236,485 were males and 37,406,881 females. The Provincial Superintendent of Census, Mr. C. J. O'Donnell, has now submitted his Report on this great undertaking, and the Lieutenant-Governor, who has perused it with interest, desires to place on record the following observations upon some of the more important points with which it deals.

2. The Report is contained in three volumes, forming numbers III, IV and V of the Imperial Census Series (volumes I and II of the same series being concerned with the Census of Assam). The first of these volumes comprises the Report proper, in the second are given the Imperial Tables, while the last is devoted to statistics of castes and tribes. For statistical purposes the territorial unit in these volumes is the district, but in order to place on record the statistics for smaller areas, the Lieutenant-Governor has caused to be published a selection of the tables showing details for each thana of a district, and the census reports submitted by District Officers are also in course of publication. When these operations are concluded, a mass of statistical information will be available, which cannot fail to be of the greatest utility. The Report itself falls naturally into two parts, viz., Chapters I to V, which describe the proceedings preliminary to the Census and the actual operations undertaken, and Chapters VI to XVI, which give the results and enter into a statistical examination of them.

3. In December 1889, a Census Conference sat at Agra, to which were deputed as delegates from the various provinces of India most of the officers who had conducted the Census of 1881, and as soon as the conclusions and recommendations of that Conference had been published, the preliminary arrangements for the enumeration to take place a year later were set on foot.

4. The first step to be taken was the correction of the two great Registers A, and B, which were originally devised by Mr. Beverley in 1871, and were rightly designated Preliminary operations. by him as the basis of the whole Census fabric. Of these the first is a register of the survey areas or *mauzas* into which the whole Province is mapped out, and contains lists of the residential villages in each *mauza*: register B, on the other hand, is the converse of register A, and is a register of inhabited villages, with a column to show the survey *mauzas* in which each is situated. The work of completing and correcting these registers occupied the hot weather and rains of 1890, and was carried out almost entirely by police agency. Meanwhile District Officers were busy preparing lists of fitting persons to take up the work of enumerator and supervisor. Each district was divided into a number of charges, usually coterminous with the thanas, each of which was again broken up into circles under supervisors, and these again into blocks, each of which was as far as possible made over to one enumerator. The number of supervisors and enumerators in 1891 was much greater than in 1881, the numbers in the former year being 26,507 and 324,645 as against 13,942 and 207,683 in the latter year: the policy of the Census Superintendent was to work with small blocks and small circles, and this was rendered possible on the present occasion by the permission accorded by Government to utilize the services of police officers, a concession which was almost entirely withheld in 1881: as a matter of fact, the average number of houses in a block was 36 only. Simultaneously with the organisation of the machinery in the mufassal, the translation and preparation of the Census schedules, the "instructions to enumerators" and other forms was going on in Calcutta. These forms were printed in six different languages, viz., English, Bengali, Kaithi-Hindi, Uriya, Nepali-Hindi and the Nagri-Hindi of Chutia Nagpur. The total number of schedules printed was 22,779,507, and of other forms 2,649,198 or a grand total of 25,428,705. The expedient of making up the schedules into books of 60, 30, 20, and 10 schedules each, certainly brought about some economy in the expenditure of forms, and the Superintendent has embodied in his report recommendations for a still further progress in the same direction at the next Census, and has recorded in his office a careful statement showing the number of enumeration books of each size actually used in each thana, which cannot fail to be of use in future.

5. In addition to the arrangements for the ordinary house-to-house census, it also became the duty of the Superintendent to make special arrangements for the enumeration of cantonments, cooly lines and jails, to organise the counting



of the moving population on boats and sea-going ships, in railway trains and on roads, besides such special gatherings as fairs and wedding parties, and these were all accomplished with success. The Lieutenant-Governor has read with pleasure that, in this part of his duty, Mr. O'Donnell, like his predecessor in 1881, received willing and valuable assistance from the managers and officials of railways, the agents of steamer companies, and unofficial employers of labour throughout the Province, and Sir Antony MacDonnell gladly takes this opportunity of thanking them for services rendered often at considerable personal inconvenience.

6. As in 1881, the enumeration of the people consisted of two processes, viz., the preliminary record and the final checking.

The actual enumeration. The former operation was carried out by the enumerators at leisure between the 15th January and the 15th February, and thus ample time was allowed for the examination of their work by supervisors and other superior officers; but, as a matter of fact, the first fortnight was chiefly occupied by experiments, and few entries were made in the schedules till after the first of February. The Lieutenant-Governor agrees with Mr. O'Donnell that the additions and erasures which are necessarily implied by too early a preliminary record justify his arguments in favour of a later commencement. In a few special cases, chiefly backward and jungly tracts, like the Tributary States of Orissa and Chutia Nagpur and parts of the non-regulation districts of Bengal, the preliminary counting began earlier, and the final check was not carried out by night. Modified schedules of a much simpler character than those in ordinary use were employed in the Hill Tracts of Chittagong, Hill Tippera and Sikkim.

7. One great step in advance was taken at this Census, which had not before been generally attempted in Bengal, and which in fact formed a third or final process in the completion of the actual enumeration. This was the rough totalling of their enumeration books on the morning of the 27th February by the enumerators who were collected in a central spot for that purpose under the superintendence of their supervisor. Careful arrangements were made for the addition of the block, circle and charge totals so obtained, and in many districts the organisation was so good that the district totals were in the hands of the Magistrate within 48 hours of the actual enumeration. Moreover the general accuracy of the work was so great that between the preliminary provincial total so arrived at, and that which was ascertained at the close of the detailed abstraction, there was only a deficiency of 305,716, or 4 per mille. The most accurate work was done in Cuttack, where the error was only 291 in a population of 1,937,671, and in Rajshahi, where it amounted to 456 in a total of 1,313,336. The variation in 1881, when the preliminary total was compiled in district offices and not by the enumerators, was 9.8 per mille. Mr. O'Donnell recommended that this preliminary abstraction should comprise more than the simple totals of the sexes, but the Census Commissioner did not sanction the proposal: the recommendation is repeated in the report, but the Lieutenant-Governor does not consider it necessary to pass any orders upon the suggestion, which will doubtless be fully considered when the time comes for making arrangements for the Census of 1901.

8. The schedule of 1891 demanded practically the same information as that of 1881, but there has been a great difference in the manner in which this information has been combined for the published Census tables. Details of occupation in combination with age were extracted in 1891, but not attempted ten years previously. The heaviest and most vexatious tasks, however, were the extraction of details of education combined with caste, and of marriage combined with age and caste.

9. An entirely new departure was also taken in the establishment of offices at district head-quarters for the abstraction of the figures from the schedules and their subsequent tabulation. In 1881 there were three offices—at Calcutta, at Dinapore, and at Cuttack; the Agra Conference recommended the establishment of an office at the head-quarters of each Division, but the Census Superintendent in 1891, with the powerful support of the Census Commissioner, obtained permission from the Lieutenant-Governor to open offices at the head-quarters of each district. Mr. O'Donnell urges that the experiment has

been successful, but the Lieutenant-Governor is unable to accept this opinion without some qualification. It is true that a great deal of the work done by the clerks in the Calcutta offices in 1881 was very bad and entailed much costly checking and correction, but from reports which have reached him since the operations were completed, and from admissions made by Mr. O'Donnell himself, it is manifest to the Lieutenant-Governor that work in several district offices in 1891 was very badly done also. The new plan is certainly much cheaper, since it saves house rent, travelling allowance, freight on schedules, and the deputation of an expensive superior establishment; but, on the other hand, the diffusion of the work renders difficult the exercise of control by the Provincial Superintendent, and—a most important consideration—throws additional labour and responsibility upon the already overworked District Officer. For these reasons, the Lieutenant-Governor, while admitting that Mr. O'Donnell administered the district system as well as it could be done, and while cordially acknowledging the devotion of almost all District Officers in discharging this heavy additional duty, is inclined to think that on a future occasion the experiment of divisional offices under a small separate staff should have a trial.

10. Abstraction, or the transfer of figures from the actual enumeration books to twelve abstracting sheets in which the block was the unit, was commenced everywhere about the 8th of April 1891, and was concluded almost without exception by the 31st July. Tabulation, that is, the transfer of the block totals from the abstraction sheets into twenty-six totalling registers, was the second stage of the operations, and commenced on different dates in different offices, according to the accuracy of the antecedent abstraction or the rapidity with which errors in it were corrected. "It was at first intended," to quote from the report, "that tabulation should be completed by the middle of August, but only one district, Noakhali, was able to work within this limit of time, followed closely by Bogra. Most districts completed tabulation by the end of September, but a few dragged on to the end of the year."

11. On these two operations, which were carried out according to fixed scales of work, Mr. O'Donnell has a good deal to say, chiefly of a technical character, which the Lieutenant-Governor will not discuss in this place, but which will doubtless prove useful to the census officer ten years hence; but the arguments employed in favour of less haste in future in conducting abstraction and tabulation are very sensible. The basis of the scheme on this occasion was the completion of the work of abstraction in four months, or 100 working days, and to secure this end, great efforts were necessary in several districts where it was difficult to procure skilled labour. "The general opinion of District Officers," in which the Superintendent records his complete concurrence, "was that abstraction was pressed on much too quickly, and that thorough supervision was impossible, except by a demand on the time of District Officers and other gazetted subordinates, which it seems inadvisable to repeat."

12. The fourth chapter of Mr. O'Donnell's Report deals with the cost of the Census. The total allotment made by the

The cost of the Census.

Government of India was eight lakhs of rupees, of which a lakh and a half were intended to cover the cost of actual enumeration, and six and a half lakhs that of compiling the resulting statistics. The saving effected on the allotment for enumeration was as much as Rs. 68,871. Very large savings were made under the heads of "Establishment" and "Paper and Printing;" the first being secured by the refusal to entertain Census clerks before the Census, so that nearly all preliminary work was done by the ordinary district staff and by the wholesale employment of the police, whose assistance was invaluable. The second was effected by the most rigorous scrutiny of indents for forms and by the diminished cost of paper, while the employment of larger machinery enabled the Press to turn out its work more cheaply. Excluding Calcutta, the cost of enumeration in 1891 was only Rs. 1,096 per million of population, as against Rs. 2,525 in 1881. Great variations in the cost of the Census were observed in different districts, the expenditure on enumeration per 100,000 of the population ranging from Rs. 278 in Darjeeling and Rs. 198 in Jalpaiguri, to Rs. 41 in Muzaffarpur, Rs. 45 in Champaran, and Rs. 49 in Dinajpur, the provincial average being Rs. 69.

13. The second and largest branch of expenditure was connected with the abstraction and tabulation of the Census schedules in the district offices.

Excluding Calcutta, as well as Kuch Bihar and Hill Tippera, the Administration of which States bore the entire cost of compilation, and making allowance for the municipal contributions and other recoveries, the Census statistics of a population of 73,245,496 persons were abstracted and tabulated at a cost of Rs. 6,20,000, so that the saving on the allotment made by the Census Commissioner was Rs. 30,000. Mr. O'Donnell's conclusion is that the allotments for abstraction were generally found to be ample, but that in tabulation they were very frequently exceeded, not because they were insufficient, but because the clerks in many offices combined to resist the tasks required of them, and so to prolong the period of their employment. His suggestions for future retrenchment in these operations do not call for present orders.

14. The Lieutenant-Governor considers the savings of nearly a lakh of rupees to be proof of the firm control maintained over expenditure by the Census Superintendent; but from information which has reached him from various quarters, Sir Antony MacDonnell is disposed to think that a little more liberality, while it would not have detracted from the credit due to Mr. O'Donnell, would have made the Census machinery work more smoothly. Serious inconvenience was caused in several districts by the rigid economy enforced in the supply of enumeration books. Sufficient allowance seems hardly to have been made in some instances for local difficulties, and the want of competent clerks, and funds for preliminary expenditure were not always adequate. It is not usual for the Government to look askance at economy of expenditure, and Sir Antony MacDonnell is far from under-estimating the Superintendent's devotion to this part of his duties. But it is to be remembered that if private persons did not largely assist the Government on these occasions by the gratuitous loan of their services, the cost of a Census in India would be enormous. Illiberality of treatment deters unofficial persons from helping us in time of need, and the Lieutenant-Governor therefore thinks that the claims to be recouped reasonable expenses, put forward by such private persons who have devoted time and trouble to the service of Government, should not be scrutinized in a grudging spirit. The Lieutenant-Governor takes this opportunity of recording his cordial acknowledgments of the invaluable assistance which private individuals have gratuitously given the Government on this occasion.

15. The chapter on Census Legislation, which is the fifth of Mr. O'Donnell's Report, the Lieutenant-Governor leaves for consideration when the arrangements for the next Census are under discussion.

16. The second part of the Superintendent's Report, dealing with the results of the Census, commences with his sixth chapter, which contains a statement of the actual population discovered by the Census, and a succinct but graphic account of the country in which they live. Mr. O'Donnell has abandoned the usual arrangement by which the Lower Provinces of Bengal are portioned out into administrative Divisions; and for the purpose of examination, looking chiefly to their geographical and ethnological characteristics, he has broken up the traditional provinces of Bengal, Bihar and Orissa, and has re-arranged the districts of Bengal into the following great groups: (I) Northern Bengal, consisting of (a) the plains portion of the Rajshahi Division with parts of Malda and Purnea, and (b) Darjeeling, the Western Duars and Kuch Bihar. (II) Eastern Bengal, comprising the Dacca and Chittagong Divisions and the Khulna district, divided into (a) the inland districts, (b) the littoral districts, and (c) the Sunderbuns, besides the Chittagong Hills and the State of Hill Tippera. Western Bengal (III) includes the districts of (a) the Presidency and (b) Burdwan Divisions, and (c) the metropolitan towns. North Bihar (IV) including the sub-Himalayan tract, South Bihar (V) the southern area bordering on the Chutia Nagpur Division. Orissa (VI) and Chutia Nagpur (VII) each fall naturally into two parts—that under the direct control of the Lieutenant-Governor, and that under the Chiefs of the Tributary States, to which has been added the British district of the Sonthal Parganas. This arrangement certainly groups the population upon an intelligent and instructive system, while the figures which are contained in the statements appended to the report enable an examination of the figures to be conducted upon the old lines.

17. The population is distributed as follows over the great natural divisions of the Province described above :—  
The distribution of the population.

	Area.	Population.	Density.
Northern Bengal ... ..	21,836	10,002,671	456·6
Eastern Bengal ... ..	34,238	16,007,257	467·1
Western Bengal ... ..	22,994	14,388,337	622·7
Total Bengal Proper ... ..	79,068	40,398,265	510·3
North Bihar ... ..	19,118	12,901,025	674·8
South „ ... ..	16,421	8,364,125	509·3
Total Bihar ... ..	35,539	21,265 150	595·8
Orissa ... ..	24,240	5,744,062	232·8
Chutia Nagpur ... ..	48,489	7,266,347	149·8
Grand Total ... ..	187,336	74,673,824	398·3

The above figures show that the Bengali population proper amounts to 54·09 per cent. of the total, and that it covers an area of 42·2 per cent. of the province; that the Biharis amount to 28·47 per cent. of the population and inhabit 18·9 per cent. of the area of the province; that the Uriyas, with a country covering 12·9 per cent. of the area of Bengal, are 7·69 per cent. of the population. Finally, the inhabitants of Chutia Nagpur, who are mostly aboriginals living in a thinly-populated tract, are 9·73 per cent. of the whole, and are scattered over an area which is equivalent to 25·9 per cent. of the whole country.

18. The figures for North Bihar are phenomenal. This tract contains no great cities, except Patna (165,192) and Gaya (80,383), and is in all respects a purely rural country; yet it carries a population of 674·8 to the square mile, and some of its districts show such wonderful figures as 930 (Saran), 902 (Muzaffarpur), and 840 (Darbhanga). Next in the list of sub-provinces comes Western Bengal, with a density of 622·7 per square mile, but this is largely due to the inclusion of Calcutta and the Suburbs with the towns of Howrah and Bally, and if these are excluded, the population of the sub-province amounts only to 508 to the square mile. How these figures compare with those recorded in other provinces of the Empire will be seen from the the statistics below, which are taken from Table I of the Imperial Census Tables—

	Area.	Population.	Density per square mile.
Bengal* ... ..	151,543	71,346,987	470·8
Assam ... ..	49,004	5,476,833	111·7
Bombay ... ..	125,144	18,901,123	151·
Burma ... ..	171,430	7,605,560	44·3
Central Provinces ... ..	86,501	10,784,294	124·6
Madras ... ..	141,189	35,630,440	252·8
North-Western Provinces ... ..	107,503	46,905,085	436·4
Punjab ... ..	110,667	20,866,847	188·5

Some of the district figures have been quoted above: the density ranges from 1,264 to the square mile in Howrah to 20 in the Hill Tracts of Chittagong. Altogether eleven districts have an average population of 700 or more to the square mile, as against ten in 1881. The two lists given in the margin show the comparative density at the two periods, and they also demonstrate clearly the general advance in density in these districts which were already over-populated.

1891.	1881.
Howrah ... 1,264	Howrah ... 1,130
Saran ... 930	Saran ... 869
Muzaffarpur ... 902	Muzaffarpur ... 869
Hooghly ... 880	Patna ... 845
24 Parganas ... 867	Hooghly ... 838
Dacca ... 866	Darbhanga ... 789
Patna ... 852	24 Parganas ... 771
Darbhanga ... 840	Dacca ... 756
Faridpur ... 793	Faridpur ... 719
Pabna ... 741	Pabna ... 710
Tippera ... 716	

\* Excluding Feudatory States, &c.

19. The seventh chapter of Mr. O'Donnell's Report deals with a subject of very great administrative importance, viz., the variation of the population, district by district, since 1881, and he rightly describes the chapter as one of the most important in the volume. The district figures are discussed with care and minuteness, and extracts are given from the reports of many district officers, which the Lieutenant-Governor has read with interest. These are, however, too numerous for notice here, and His Honour must content himself with referring to some of the most important among them, as well as the figures for areas larger than the district.

20. The Census Superintendent has followed the same arrangement of areas which has already been referred to in previous paragraphs. He has also, with commendable industry, carried still further the investigations into increase and decrease which were very fully discussed in Chapter V of the Bengal Census Report for 1881. Mr. O'Donnell has shown in a small table for every district the variation, actual and proportionate, in the number of persons actually enumerated in the district in 1881 and in 1891, and he has also ascertained, by a judicious use of the birthplace statistics, what may be called the corrected population for each district. From the recorded total have been deducted the figures for all persons enumerated in the district who were born elsewhere; on the other hand there have been added the numbers of those who, though born in the district, have been enumerated elsewhere, the result being the population actually born in the district. From this operation two important results emerge: it is possible to recognize very clearly in what districts population is increasing or decreasing, irrespective of outside influences, and it is not less easy to see to what localities immigrants resort and what tracts are being depleted by emigration.

21. When people are prosperous and live in a healthy climate, population usually increases. But it is not always safe to infer prosperity from an increase in population: the inference, however, in the case of Eastern Bengal would not be incorrect. An examination of the figures shows very clearly that, during the ten years which elapsed between 1881 and 1891, the districts of this sub-province have, without exception, made great strides in material prosperity and in numbers. Not long before the Census of 1881 their prosperity was rudely checked, and great loss of life and vast damage to property were caused by the cyclone and storm-wave of October 1876: but even in 1881 the ravages of that terrible calamity had been largely repaired, and the advance which had then commenced has been so well sustained, that between that year and 1891 there was an increase of 10 per cent. or more in every district of the Dacca and Chittagong Divisions, the progress being greatest in those which had suffered most severely in 1876, viz., Noakhali, Chittagong, Backergunge, and Tippera. Not far behind these districts come the Tributary States of Chutia Nagpur and the districts of the Chutia Nagpur Division, with the exception of Hazaribagh. The non-Aryan races are said by Mr. O'Donnell to be extremely prolific, and the fine climate of this tract, and the simple habits of its people, all tend to the preservation of life and the rapid reproduction of the species. Nevertheless, these facts do not sufficiently account for the recorded increase, and it seems impossible to doubt that much of it is due, especially in the Tributary States, as in the contiguous Tributary States of Orissa, to more accurate enumeration, and in some extent to immigration. The same explanation alone suits the great increase in Darjeeling of 28·1 per cent. in the number of women. As soon as the figures of 1881 were published, it was suspected that there had been in this district a great concealment in the number of women, and the suspicion is now verified. The district of Malda, which, during the decade, has enjoyed a season of uninterrupted prosperity, has also increased 14·4 per cent. on the population of 1881. Saran, which is the most densely populated rural district in the province, and which was described by Mr. Beverley in 1872 as incapable of sustaining any further burden on the soil, shows an advance in its net population of 13·3 per cent.: Howrah, which is essentially an urban district, has an increase of 17·2 per cent., which the Census Superintendent is unable to credit. No districts give a net decrease except Birbhum (4 per cent.), Rajshahi (3·1), and Burdwan and Rangpur (1 per cent. each). In all these districts fever has been continuously prevalent.

22. The general results for the larger areas of Mr. O'Donnell's classification are as follow:—

VARIATION IN NET POPULATION.				
		Males.	Females.	Total.
I.—Northern Bengal—				
Plains districts	...	+ 2.9	+ 1.7	+ 2.3
Hills and Terai	...	+ 7.6	+ 5.8	+ 6.76
II.—Eastern Bengal—				
Inland districts (a)	...	+ 10.7	+ 11.9	+ 12.3
Littoral districts (b)	...	+ 18.9	+ 16.4	+ 17.7
Hilly tracts	...	Not available.		
III.—Western Bengal—				
Presidency districts	...	Not available.		
Burdwan districts	...	+ 4.3	+ 2.4	+ 3.3
Calcutta	...	+ 16.4	+ 12.4	14.4
IV.—North Bihar	..	+ 6.4	+ 8.0	+ 7.2
V.—South Bihar (c)	..	— 1.8	+ 3.1	+ .6
VI.—Orissa	..	+ 9.2	+ 11.3	+ 10.2
VII.—Chutia Nagpur (d)	..	+ 14.9	+ 14.3	+ 14.6

23. The statistics of gross population display, as might have been expected, greater variation, for whereas in respect of net population there were seventeen districts which showed an advance of 10 per cent. or more, and only four which

	Increase of gross popula- tion.
Darjeeling ...	43.2
Chota Nagpur States	30.9
Noakhali	23.0
Tippera	17.9
Howrah	17.5
Jalpaiguri	17.3
Dacca	14.5
Malda	14.4
Chittagong	13.8
Mymensingh	13.4
Backergunge	13.2
Manbhum	12.9
24-Parganas	12.5
Sonthal Parganas	11.8
Bogra	11.2

returned an absolute decrease, the varying tide of migration has added so eccentric a factor to the natural progress of population, that while fifteen tracts show an advance in gross population, the number of tracts in which numbers have actually fallen off is seven, viz. Kuch Bihar (3.9), Birbhum (3.8), Jessore (2.5), Rangpur (1.6), Rajshahi (1.2), Nadia (1.1), and Burdwan (0.1). The districts of Eastern Bengal again take a prominent place, as the figures in the margin will show, clearly proving that the favourable conditions of life in those districts have invited settlers as well as stimulated natural increase. In Howrah and the 24-Parganas, "the Middlesex of Bengal," the attractions of the metropolis and of the great mills and factories

which gird it about account for the increase: in Darjeeling and Jalpaiguri the very high figures are attributable to the development of the tea industry, the more accurate census being in Darjeeling an additional explanation. Malda and Bogra are two prosperous tracts in the generally stagnant area of the Rajshahi Division, while the prospect of virgin soil at easy rates of rent, and the facilities afforded by the new railway, have flooded the Sonthal Parganas, Manbhum, and the Chutia Nagpur States with immigrants.

24. Focussing all the province in one general view, it seems that only in one large tract, viz., Eastern Bengal, has there been a general and marked advance of the gross population, viz., 13.5 per cent. Orissa and Chutia Nagpur, it is true, yield an increase of 10.2 and 12.2 per cent. respectively: but this is due, to an indefinite but large extent, to better enumeration. Bihar, thanks to the development of the sub-Himalayan tract and to the advance in the marvellous district of Saran, has been able to withstand the loss of population in its southern zone from fever and the heavy drain of emigration, and shows a gross increase

(a) Excluding Jessore.

(b) Excluding Khulna.

(c) Including Monghyr and Bhagalpur.

(d) Including the Sonthal Parganas.



of 4·7 per cent. On the other hand, in Northern Bengal, excluding the hilly tracts, every district but Malda and Bogra has either retrograded or remained stationary, and the general advance is only 2·5 per cent. Lastly, Western and Metropolitan Bengal, owing to the persistent fever which throughout the decade has clung to the districts of that sub-province, has a percentage of increase, excluding the metropolitan towns, of only 3 per cent.

25. The Report leaves no room for doubt that since 1881 the habit of emigration, chiefly of a temporary character only, has increased to some extent among the people of these provinces. The pressure on the soil in some districts, the facilities of railway communication, and the increased cost of living everywhere, have induced an emigration which was unknown ten years ago. Excluding those who had passed out of India and could not be traced, the balance of migration to and from other provinces against Bengal in 1881 was 147,001, whereas in 1891 as many as 821,998 persons had left Bengal, as against 506,423 who had come in, leaving a balance against the Lower Provinces of 315,575 persons, or more than double the loss of population ten years before. For this great drain Assam is mainly responsible, that province containing at the time of the census 418,360 persons born in Bengal, of whom 190,774 were emigrants from Chutia Nagpur. The distribution of the emigrants from Bengal is given below—

North-Western Provinces and		Madras	...	10,923
Oudh	206,018	Punjab	...	7,654
Assam	418,360	Bombay and Sindh	...	11,218
Central Provinces	55,741	Burma	...	112,084

26. The migration beyond the province is of course small compared to the movement of population within the province itself. Impressed with the greatness of the latter movement, Mr. O'Donnell doubts whether "any nation in the Old World is within its own limits in a more constant state of movement or more ready to change its homes." The Lieutenant-Governor has no information before him as to the volume of this migratory movement in European countries, but in Bengal the facts do not seem to warrant the significance which Mr. O'Donnell attaches to them, nor to show any very appreciable difference from what was already well known on the subject. In 1881, after excluding all those persons, the districts of whose birth had not been recorded, and all those enumerated in Bengal who were born outside the Province, there were found in Bengal 68,467,933 persons who had been born within its limits: to these may be added 615,286 persons born in Bengal and found elsewhere, so that the number of Bengal-born persons in that year, excluding those whose returns were indefinite, was 69,083,219. Of this number, only 3,428,867, or 4·96 per cent., were enumerated in districts other than that in which they were born, and 615,286 (or ·88 per cent.) were found in other provinces. The inter-district and inter-provincial migration of the people in 1881 then was measured by 5·84 per cent. of the total Bengal-born population. In 1891 the number of persons in Bengal, of whose birthplaces we have information, was 73,848,719, and those Bengal-born persons who were found elsewhere numbered 821,998, so that the total of natives of Bengal in 1891 was 74,670,717. Of this number 3,775,582, or 5·05 per cent., were found in districts other than that of their birth, and, as already stated, 821,998, or 1·1 per cent., were enumerated outside the province. The migration of the people in 1891 then is measured by 6·15 per cent. on the total Bengal-born population, or ·31 more than in 1881. The increase is not more than a very moderate response to the increased facilities of communication which have come into existence during the decade; while taken absolutely, the migration is not of a magnitude to call for any special notice, or to justify the Superintendent's description of it. If it be remembered that the boundaries of districts and of provinces are often merely conventional lines, the dwellers on both sides of which are practically the same people, intermarrying freely, and passing without stint backwards and forwards on business or pleasure, it would seem that the movement recorded is really inconsiderable, and that the statement of the Census Superintendent of 1881, that the natives of these provinces are "above all things a domestic and stay-at-home people," is nearer the mark than the later statement now under notice.

27. In many districts, of course, which march with provincial boundaries, there is a considerable immigrant population, and a considerable number of its natives are found elsewhere: so, also, where there are special attractions, a district shows a large immigrant population, or conversely, where the pressure on the soil is great or the climate unhealthy, the proportion of emigrants is large. These ratios are worked out district by district in Mr. O'Donnell's Report, in a series of tables for each sub-province of his classification. In eight districts the immigrants amount to 10 per cent. or more of the population, and in twenty

<i>Immigration.</i>		<i>Emigration.</i>	
Calcutta	... 66.3	Hooghly	15.9
Darjeeling	... 61.0	Saran	15.2
Hill Tippera	... 24.2	Lohardaga	11.7
Jalpaiguri	... 21.6		
<i>Tributary States—</i>			
Chutia Nagpur...	17.3		
Howrah	... 15.3		
Champaran	... 13.3		
Malda	... 10.5		

others the ratio is 5 per cent. or more. Only three districts show a percentage of more than 10 of emigrants to the total born in the district, but in twenty-two others the ratio is between 5 and 10 per cent. The districts with the largest proportion of emigrants and immigrants are given in the two lists in the margin.

28. Bengal, as judged by the relative proportions of its urban and rural population, remains as much as ever an agricultural country of small villages and hamlets. The total figures of urban population in 1881 and 1891 unfortunately cannot be fairly compared, since the meaning of the term was differently construed in the two years. In 1881 every municipality, whatever its population, was reckoned as a town, as was every village or group of villages with more than 5,000 inhabitants, provided that it was really urban in character, while in 1891 that term only included those places to which Government has seen fit to extend municipal legislation. There is, therefore, an apparent decrease in the urban population of 203,811; but comparing the population of existing municipal areas with the population of the same places in 1881, there has been an increase of 304,236 persons, or 9.36 per cent., in the decade. This increase is far from universal, so that Bengal as yet knows nothing of that indraught to the great cities which is so prominent a feature of European sociology. Where the urban population has increased, there has always been a specific cause, such as the development of railway communications, as in Mokameh and Jamalpur, Lohardaga and Daltonganj, Muzaffarpur, Darbhanga, and Chapra, coupled sometimes with the attractions of climate as in Darjeeling; the development of trade, as in Jalpaiguri, Dacca, Chittagong, and Narainganj, or a purely fortuitous and temporary influx of pilgrims as in Puri.

29. The number of villages with less than 200 inhabitants is 54 per cent. of the whole, and an interesting table shows what proportion of the total population in each geographical division lives in villages of different sizes. As might have been expected from the universal fertility of the country, the agricultural habits of the people, and their long freedom from war and rapine, Bengal has comparatively speaking fewer large towns than any other of the great Indian provinces. Mr. O'Donnell writes:—

“The Lower Provinces contain 37 towns with more than 20,000 inhabitants, the number in the North-Western Provinces and Oudh being precisely the same, and in the Madras Presidency only one less. In Bombay 21 towns exceed this population, and in the Punjab 23. In the proportion of great towns to total provincial population the rank of these great administrative divisions is the reverse of that in which they have been detailed above, the Punjab taking the first place and Bengal the last. The only point in which the Lower Provinces can claim any urban superiority lies in the fact that Calcutta, as befits its metropolitan position, is the largest city in the Empire, with a population, including its immediate suburbs, of 879,154 souls, Bombay with 821,764 inhabitants being a close second, Madras coming a rather distant third with 452,518 people within its municipal limits. The two former great Indian capitals have the distinction of exceeding in population every city in the British Empire except London, whilst only Liverpool, Manchester, and Birmingham surpass Madras. The only capitals in Europe that possess a larger population than Calcutta are Paris, Berlin, and St. Petersburg; in Asia, Tokio; and in the rest of the world four great cities of the United States of America.”

30. The numbers and distribution of the European and Eurasian population are matters of interest not only to the Administration, but to the general public. The numbers at the present census and the last appear to have been as follows:—

Europeans and Eurasians.



			British-born subjects.	Other Europeans.	Eurasians.	Total.
1881	...	...	10,583	13,638	14,705	38,926
1891	...	...	9,198	13,575	15,162	37,935
	Difference	...	-1,385	-63	+457	-991

The decrease among the Europeans has been entirely in Calcutta, where the English-born fell from 5,923 in 1881 to 4,225 in 1891—a result so unexpected that the Superintendent hazards the conjecture that some of the forms for Europeans in Calcutta have been mislaid and their contents omitted from calculation. Rather more than half of the 22,773 Europeans, viz. 11,914, are found in Calcutta, the only other districts which have more than 1,000 Europeans being the 24 Parganas (2,010), Patna (1,662), and Darjeeling (1,049), their prominence being due to the cantonments they contain. Howrah, with 826 is not far behind.

31. The figures for the Eurasian population are full of significance, and it is to be regretted that it is not possible to place implicit confidence in them. It is well known that there exists among certain classes of them a tendency to record themselves as pure Europeans, and this must to a certain, though indefinable, extent impair the value of the returns. Nevertheless the fact that Europeans have not increased during the decade, even after making every allowance for possible errors in the Calcutta census, gives some ground for the belief that the Eurasian returns are fairly reliable. Their inclination, as is well known, is to cluster in colonies in the older towns of the province, so that Calcutta returns 9,818, or 64·7 per cent. of the whole number, Howrah, with its mills and railway workshops, shows 810, Chittagong contains 575, Patna 570, Burdwan 382, Monghyr 343. Their increase during the decade has only been 3·1 per cent., and the figures given by Mr. O'Donnell go to show that, contrary to the general opinion, they are not prolific. Moreover, his statistics confirm the conviction that the poverty and the habits of those who form a large percentage of the community are inimical to health and longevity. Out of every 20,000 persons in England of each sex, 1,380 males and 1,501 females are over 50 years of age; in the total population of the Lower Provinces, which is almost entirely native, the proportions are 1,032 males and 1,191 females, while among Eurasians the figures are for males 923 and for females 1,151.

32. The statistics of religious belief have at each preceding census afforded information of great interest, and the enumeration of 1891 is no exception to the rule.

The religions of the people.

In 1872 it was demonstrated, for the first time, that the stronghold of Muhammadanism was not, as had till then been supposed, the great and ancient city of Patna and the old Moghul province of Bihar, but the swamps and rice-fields of Eastern Bengal: in 1881 a considerable advance of Hindus was displayed, which was attributed to the inclusion in that category of many members of aboriginal or semi-aboriginal tribes, while the Report of 1891 gives good ground for the conclusion that the feature of the past ten years has been the great development of Islam. Mr. O'Donnell has discussed the subject with care, and has shown conclusively, by the aid of statistical tables, that throughout the province during the past decade the Muhammadans have gained steadily on the Hindus, while in Bengal Proper, during the nineteen years which have elapsed since the census of 1872, the deficiency of half a million of Muhammadans has been wiped out, and has been replaced by an excess of one million and-a-half. The Census Superintendent attributes this result less to conversion than to the fecundity of the Muhammadan population, and his remarks merit quotation:—

“On the other hand, the Muhammadan faith, like the Sikh, opens its arms to every comer and receives him on terms of the broadest equality, if the profession he actually pursues is not an essentially degrading one. All the agricultural castes—the Chandal, Kaibartta or Chasa—on joining Musalmansim develop into a Shaikh, and it depends only on his worldly wealth to what rank he may aspire in seeking a bride for himself or a husband for his daughter. It is a matter of history that the republican character of the domestic constitution of Musalman society won innumerable converts in Eastern Bengal when the Moghul supremacy was first established in that region a few centuries ago. It would be strange if it did not still exert

a strong attraction, and the great growth of the faith would seem to bear witness to this opinion, which, however, it is impossible to prove statistically. It is known that a powerful Muhammadan propaganda is at work, and that the preaching of the ubiquitous Mullahs and Mirs is directed not only to instil the precepts of a higher life, according to the doctrines of the Koran, on Musalmans, but to gain new followers for its teachings. That converts should result seem natural, but, however this may be, it is certain that the great growth of Musalmans in Bengal Proper is connected rather with physical than doctrinal forces. The Musalman with his more varied and nutritious dietary is probably a more vigorous man than the Hindu. Moreover, the universal practice of widow marriage, which the Bengali Hindu holds in abhorrence, adds very largely to the reproductive class amongst Muhammadan women. On the other hand, ill-assorted marriages are far more common amongst Hindus, men well advanced in years being united to girl-wives who in the natural course of human life are left widows, debarred from further maternity at a comparatively early age. Musalmans also, particularly in Eastern Bengal, are polygamists whenever they have the means to support a second wife, generally a widow, married as often as a convenient unpaid domestic drudge as for the sake of the children she usually bears her master."

33. The actual figures for the different religions in 1881 and 1891, their ratio in 10,000 of the population, and their variation during the decade, are shown in the statement below:—

RELIGIONS.	1891.		1881.		VARIATION.	
	Number.	Ratio in 10,000.	Number.	Ratio in 10,000.	Number.	Ratio.
Hindus ... ..	47,821,468	6,407	45,452,826	6,536	+ 2,368,642	— 129
Jains ... ..	7,270	1	1,600	2	+ 5,671	+ 78
Brahmos ... ..	2,546	0.3	788	1	+ 1,758	+ 72
Musalmans ... ..	23,658,347	3,170	21,704,724	3,121	+ 1,953,623	+ 49
Buddhists ... ..	194,717	26	155,800	22	+ 38,917	+ 4
Sikhs ... ..	417	0.5	549	0.7	+ 132	+ 0.2
Christians ... ..	102,484	26	128,135	18	+ 64,349	+ 8
Jews ... ..	1,448	1	1,050	1	+ 398	...
Parsis ... ..	179	0.2	156	0.2	+ 23	...
Animistic ... ..	2,753,061	369	2,055,822	297	+ 697,239	+ 72
Minor ... ..	32	0.04	...	...	...	...
Not returned ... ..	11,397	1	35,404	6	— 24,007	— 5
Total ... ..	74,643,360	10,000	69,636,861	10,000	+ 5,106,505	...

34. It has been stated that the census figures of 1872 first showed how strictly localised the religions of the province were, and the localisation of religion is as distinct as ever. In every district of Orissa more than 90 per cent. of the population are Hindus, while Bihar is only slightly less Hindu, since in every district of the Patna and Bhagalpur Divisions, except Purnea, they number 85 per cent. or more. No district is so exclusively Muhammadan as these are Hindu, the highest proportion of Muhammadans being reached in Bogra (80.62), while in Rajshahi (78.72), Noakhali (75.30), Pabna (73.31), and Chittagong (71.69) they exceed 70 per cent., and the other districts of Eastern Bengal without exception have a Muhammadan population of more than 60 per cent. Animistic religions are of course most largely represented in the Orissa and Chutia Nagpur Divisions and in the districts bordering on them.

35. The Chutia Nagpur Division is also conspicuous for the great increase of Christians which it shows. Christianity, though the number of its adherents is still comparatively small, being 128,135 in all, or 26 in every 10,000 of the general population, has throughout the Lower Provinces made greater progress, relatively speaking, during the last decade than any other religion, the advance being 50.21 per cent.; but in the Chutia Nagpur Division the increase has been 122.6 per cent., the numbers having advanced from 40,373 in 1881 to 89,654 in 1891. Mr. O'Donnell's report examines the distribution of this increase among the various denominations of the Christian religion, and his observations will be read with interest by the friends of missionary enterprise in India. The recorded figures have, however, to be received with considerable reservations, and a comparison of figures for denominations at the time of the two censuses is extremely difficult, on account of considerable differences of description at the two periods.

36. Like his predecessor in 1881, Mr. O'Donnell has devoted much trouble and time to the extraction of the ages of the population, and, like him, has been compelled to confess

The ages of the people.

that the result is entirely incommensurate with the labour and expense involved. In 1881 age-periods were for the first time compiled in detail in India, and were worked out on two abstraction sheets. In 1891 four abstraction sheets were used to record the ages of the whole population, of which two (Nos. I and XI) formed the basis of check for all the work of abstraction, and were therefore corrected with the utmost care. The cost of preparing these great tables has been estimated by Mr. O'Donnell at about two and three-quarter lakhs of rupees, or more than one-half of the total cost of abstraction, and the Lieutenant-Governor notes with sympathy the Superintendent's disheartening conclusion that the greater part of this large sum was absolutely thrown away. So strong is Mr. O'Donnell's conviction on this point that he has proposed that in future the age-tables of only a part—perhaps six millions of the population—should be abstracted, typical circles, both urban and rural, being selected for treatment. No orders are required upon this proposal now, but the Lieutenant-Governor has no doubt that it will receive the fullest consideration before the census of 1901 is undertaken.

37. For the reasons stated above, it would be unprofitable to examine at any length the voluminous age-tables which are contained both in the statistical volumes of the Report and in the letter-press of Mr. O'Donnell's first volume, and in any case such interest as they possess is purely statistical. The errors in recording the ages of the population which were observed in 1881 are repeated in 1891 with very slight variations, so much so that the Superintendent of the Census just taken quotes *in extenso* the observations of his predecessor as exactly applicable to the figures before him. A great effort was made by the Agra Conference to remove one prolific source of error, by directing that children under one year of age should be described simply as "infant," instead of by the number of months of age—a device which in 1881 is believed to have resulted in large numbers of infants of less than 12 months being returned as of the corresponding number of years. This change, however, seems to have been quite unsuccessful, and the figures again present the absurd spectacle not only in Bengal, but all over India, of more children alive between the ages of 5 to 9 than those of 0 to 4; while in the first five years of life the fourth is most largely represented, followed in succession by the first, fifth, third, and second, in that order. Again, too, the phenomenon reappears of large numbers of ages returned at the round numbers, multiples of 5 and 10; and the Superintendent, carrying his investigations beyond the quinquennial periods to groups for each year of life, has shown that certain favourite ages—12, 16, 22, 32, and 42—have been returned by an altogether disproportionate number of the population. The fact is that the vast majority of the people are still so illiterate, and their inaccuracy as regards their ages so universal, that the collection of trustworthy age statistics is for the present a hopeless task in Bengal.

38. After the census of 1881, the figures then obtained were referred to a distinguished English statistician, Mr. Hardy, who, by the aid of a small number of accurately recorded life statistics from the North-Western Provinces, elaborately corrected the chaotic figures presented to him. Mr. O'Donnell has applied the conclusions so obtained to the returns of the late census, and has redistributed the age figures over 10,000 of the population in all the great natural divisions of the country, producing statistics which, if they do not carry to the Lieutenant-Governor's mind complete conviction of their accuracy, bear testimony to the industry of the writer, who has based upon them conclusions as to the fecundity and longevity of the different religions and races in different parts of the province, which are at least plausible and ingenious. Out of the mists and uncertainties of these statistics, however, there emerge two conclusions of practical importance, which are at least *vraisemblable*. It is stated that in the Lower Provinces the true birth-rate is 47·9 per thousand (49·7 for males and 46·0 for females), and the death-rate 39·9 per thousand, being 41·7 for males and 38·0 for females. These ratios, based upon the conclusions of the European statistician already referred to, differ but slightly from those arrived at by Mr. Bourdillon in 1881, who deduced from the figures of that census a birth-rate of "not less than 45 per mille" and a death-rate of "about 34 per mille." These results go far to demonstrate, if further demonstration be needed, how exceedingly imperfect are the present vital statistics, which, according to the

report of the Sanitary Commissioner for 1892, yielded in that year a Provincial birth-rate of 28·15 and a death-rate of 31·92 per mille.

39. Not less interesting than the question of the ages of the people are those of their sex and conjugal condition, which are discussed at length in Chapter XI of Mr. O'Donnell's Report (Volume III). At the census of 1872 no attempt was made to publish statistics of civil condition except as an experiment for a few towns, and even then they were not shown in connection with age. In 1881 civil condition, religion and age were shown in combination, and details of the single, married and widowed of each sex were given for every religion in nine age-groups. In 1891 the same statistics were shown again; but a great step in advance was taken in the abstraction of these figures not only for religions, but for castes. The results obtained at either census were practically identical, and this fact affords strong evidence of the general accuracy of both; but the statistics for marriage in each caste have enabled Mr. O'Donnell to make a deduction which, though already brought to notice by Mr. Risley, C.I.E., in 1887, has now been statistically established for the first time, and is among the most interesting results of the present census, viz., the great extent to which widow-marriage is practised among the Hindu population. This conclusion is opposed to Brahminical teaching and to the supposed customs of the people; but the figures, supported by the conclusions independently formed by Mr. Risley, leave little room for doubt on the subject.

40. The proportion of the sexes varies greatly in different parts of the Lower Provinces and in different religions. In 1881 the Provincial Superintendent remarked that the accuracy of a census in India varied with the excess of females over males, the measure of accuracy being the degree of excess; of course the generalization was only a rough one. Every census ought to be more accurate than that which preceded it, and accordingly, while in 1881 there were all over the Province 1,011 females to every 1,000 males, in 1891 the proportion had risen to 1,032. In all the other great provinces of India, except Madras, the ratio of females to males has also increased: in Madras the women to every 10,000 men are two less than in 1881. It is also to be observed that in Bengal and Madras alone do the women outnumber the men, the proportions for other provinces being as follow: Bombay 957, North-Western Provinces and Oudh 923, and the Punjab 854. The ratios in the two latter provinces are appreciably affected by the large number of troops enumerated therein.

41. The Census Superintendent has the following observations on the distribution of females. They are quoted with the view of inviting further examination of the question by persons interested in such enquiries—

"It thus appears that the excess of females is found only in the western moiety of the Lower Provinces, that is, west of a line drawn north and south from Darjeeling to Calcutta, and that it is most marked in Bihar, which touches on the North-Western Provinces, where women generally, and particularly those of marriageable age, viz., from five to twenty years of age, are singularly few. On the other hand," both in Northern and Eastern Bengal there is a deficit of females, there being only 966 persons of that sex to 1,000 males in each of these sub-provinces. As will appear in the Chapter on Castes and Tribes, this line of cleavage, marked by so important a physiologic distinction as sex predominance, corresponds exactly with the ethnical frontier which divides the races of Mongoloid origin to the east from those of Negritic descent on the west of the Bhagirathi. The deficiency of females in Northern Bengal is to some extent perhaps due to the large cold-weather immigration of men from Bihar, mostly Hindus, and so far counterbalances their excess in Bihar, but it is entirely insufficient to account for the great difference in sex proportion. Amongst Musalmans the sexes are in more nearly equal ratio. The low proportion of Hindu women in Eastern Bengal can hardly be in any degree due to immigration of males. Amongst Musalmans another influence reducing the number of females is indicated by the extremely small number of old women in that community. The profligence of the Eastern Musalmans is proverbial, and has been proved in detail in the Chapter on Age, but it is bought at the price of a heavy female mortality and short lives amongst women. Whilst among Hindus out of 10,000 women 1,283 exceed 50 years of age, there are only 781 Musalman women of that age in an equal population. In Western Bengal there is an excess of women. Although nearly every district in this area receives a large immigration population, it is mostly derived from the Chutia Nagpur tribes, who, unlike the Bihari and Uriya, rarely leave their womenfolk at home. The great similarity of the proportions of the sexes at every age in both North and South Bihar for both Hindus and Musalmans is a striking evidence of the excellence of compilation in the Census offices of that province."

42. The proportion of single, married, and widowed of either sex in 10,000 of the population at each census is shown in the following table for the different provinces:—

PROVINCE.	SINGLE.				MARRIED.				WIDOWED.			
	Males.		Females.		Males.		Females.		Males.		Females.	
	1891.	1881.	1891.	1881.	1891.	1881.	1891.	1881.	1891.	1881.	1891.	1881.
Bengal Proper ... ..	5,068	5,010	3,113	2,912	4,556	4,690	4,571	4,004	376	388	2,310	2,463
Bihar ... ..	4,102	3,088	2,805	3,757	5,302	5,551	5,328	5,444	506	460	1,807	1,706
Orissa ... ..	5,214	5,024	3,480	3,378	4,432	4,658	4,476	4,571	354	317	2,035	2,050
Chutia Nagpur ... ..	5,005	4,866	3,945	3,727	4,535	4,851	4,553	4,800	370	281	1,512	1,412
Feudatory States ... ..	5,330	5,154	4,125	3,800	4,282	4,537	4,279	4,576	370	308	1,506	1,593
Total ... ..	4,755	4,071	3,105	2,971	4,827	4,920	4,829	4,000	418	398	2,066	2,127

43. The figures for males yield no very remarkable results, but it is a significant fact that since 1881 the general age of males at marriage has increased considerably, and that there are now a larger portion of the unmarried, both bachelors and widowers, than formerly. Mr. O'Donnell has ascribed these phenomena to the increased cost of living and to the greater weight now accorded to prudential considerations, to which must be added the fact that the population of Chutia Nagpur and Orissa, where males marry later than anywhere else, has increased very largely during the decade. Whatever be the cause, the above table shows there are now 103 fewer married men (not 97, as Mr. O'Donnell says) and 71 fewer married women in 10,000 of each sex than there were ten years ago. Infant-marriage among boys exists to an appreciable extent only among the Hindus of Bihar and Chutia Nagpur, and to a less degree among the Musalmans of the former province, being least common among the people of Orissa, both Hindu and Animistic. In Bengal Proper men marry later than in any part of the province, the percentage of unmarried males between 15 and 20 years of age being 70·5 in that sub-province and 74·3 in Orissa, as compared with 34·7 in Bihar and 47·5 in Chutia Nagpur; and the correctness of Mr. O'Donnell's inference that the age of marriage is fixed by local rather than by religious or social usage is proved by the fact that amongst Musalmans between 15 and 20 years of age as many as 67·8 per cent. are unmarried in Bengal against 51·4 in Bihar.

44. The facts elicited as regards female marriage are full of interest, and they show that custom in regard to the marriage of females is much more influential and much more divergent than is the case with males. If infant-marriage be, in regard to females, defined as the marriage of children under twelve years of age, then infant-marriage is almost universal in these Provinces, except in Orissa and Chutia Nagpur. But if the ten years' age-limit be taken, then Mr. O'Donnell finds that infant-marriage, that is, the marriage of children less than ten years of age, although far more common among girls than among boys, is less prevalent among females than some have believed—in fact, like the predominance of females noticed above, it is practically speaking only found in the western half of the Province. Musalmans do not follow the practice, for in no part of Bengal is the percentage of the married among Muhammadan girls under ten years of age higher than 8·66, and the general

North Bihar ... ..	17·73
Western Bengal ... ..	11·54
South Bihar ... ..	10·84
Chutia Nagpur ... ..	8·29
Eastern Bengal ... ..	6·92
Northern " ... ..	6·78
Orissa ... ..	1·93

average is much less. The percentages for Hindus in different parts of the Province are marginally stated. It is established, further, that with some exceptions the earliness of female marriage varies inversely with the respectability of the caste or tribe, the lowest castes, who do not seclude their females, marrying off their daughters at the earliest age, while the better classes, by whom seclusion is practised, are able on that account to delay till a later period the choice of a husband. In the next place, the local rather than the religious or social variation in the age at marriage of females is more strongly marked than in the case of males. Girls married under ten years of age hardly exist except in North Bihar. The average age of marriage for girls all over the province is eleven years, but the Hindu girl of Orissa is married at thirteen years and four months, while the Dravidian girl in Chutia Nagpur marries at fourteen, and in Orissa at fourteen and-a-half years of age.

45. Lastly, to quote Mr. O'Donnell's words, the census statistics establish the fact that "young widows, an object of pity in all times and countries, are very few except among the Hindus of Bengal Proper. Everywhere else the Hindu widow remarries as freely as the Musulmani, in fact as freely as the non-Hindu tribes of the Western Hill districts;" and he sums up the conclusions

THE AREAS IN WHICH WIDOW-MARRIAGE PREVAILS.

<i>Widow-marriage universal.</i>			Percentage of widows amongst women aged 15 to 39 years.	
Orissa ...	...	The Animistic ...	...	5.61
Chutia Nagpur ...	...	„ „	...	7.07
<i>Widow-marriage practised by all classes except a few of the highest Hindu castes.</i>				
North Bihar ...	...	Hindus ...	...	9.08
Orissa ...	...	„ ...	...	9.85
Eastern Bengal ...	...	Musalmans ...	...	9.86
North Bihar ...	...	„ ...	...	10.06
South „ ...	...	Hindus ...	...	10.33
„ „ ...	...	Musalmans ...	...	10.54
Northern Bengal ...	...	„ ...	...	11.96
Chutia Nagpur ...	...	Hindus ...	...	12.14
Western Bengal ...	...	Musalmans ...	...	15.75
<i>Widow-marriage forbidden except by Musalmans and the lowest Hindu castes.</i>				
Northern Bengal ...	...	Hindus ...	...	23.04
Eastern „ ...	...	„ ...	...	23.45
Western „ ...	...	„ ...	...	24.12

at which he has arrived in the synoptical table quoted in the margin: "It shows how very widespread is this custom. It is in fact condemned only by the priestly, writer and soldier castes, and by some traders in all sub-provinces, by the Nabusakhs or pure Sudras in Bengal Proper, and in a less degree by a few Hinduized tribes, such as the Chandal, Kochh, and Kaiburtta, who are trying to raise themselves in the Hindu scale by a more exact observance of Hindu ordinances." This opinion coincides with the opinion independently expressed by Mr. Risley, who, after a careful examination of the

whole subject, writes as follows:—

"In Bihar a fairly liberal tendency seems to prevail. All castes except Brahmans, Rajputs, Bahhans, and Kayasths, and certain castes belonging to the Baniya class, which are not properly native to Bihar, permit widows to marry again by the term known as *sagui*. \* \* \* In Chutia Nagpur the castes which are, or pretend to be, of Bihar origin, follow the Bihar rules in the matter of widow-marriage. The aboriginal tribes, Santhals, Bhumijs, Mundas, Oraons, and Hos, permit widows to marry again. \* \* \* The tendency to imitate the usages of the higher castes, which has been remarked in Bihar and Chutia Nagpur, operates much more strongly in Bengal Proper and Orissa. \* \* \*

"The present attitude of the Hindu community towards the recent proposals to recognize and extend the practice of widow-marriage may, I think, be briefly stated somewhat to the following effect. The most advanced class of educated men sympathise in a general way with the movement, but their sympathy is clouded by the apprehension that any considerable addition to the number of marriageable women would add to the existing difficulty and expense of getting their daughters married. Below these we find a very numerous class of men who are educated enough to appreciate the prohibition of widow-marriage supposed to be contained in certain texts, and who have no desire to go behind that or any similar injunction in support of which tolerably ancient authority can be quoted. Then come the great mass of the uneducated working classes, with rather vague notions as to the Shastras, but strong in their reverence for Brahmans and keen to appreciate points of social precedence. To them widow-marriage is a badge of social degradation, a link which connects those who practise it with Doms, Boonias, Bagdis and 'low people' of various kinds. Lastly, at the bottom of society, as understood by the average Hindu, we find a large group of castes and tribes of which the lower section is represented by pure aborigines practising adult-marriage and widow-remarriage, while the upper section consists of castes of doubtful origin, most of whom, retaining widow-marriage, have taken to infant-marriage, while some have got so far as to throw off sub-castes distinguished by their abstention from widow-marriage."

46. The truth is that the practice of widow-remarriage is more prevalent

Ages.	Number of widows in 10,000 Hindu females of each age.		
	1881.	1891.	Difference.
15—19 ...	791	654	—137
20—24 ...	1,136	1,032	—104
25—29 ...	1,661	1,583	— 78
30—39 ...	2,328	2,796	+ 468
Total four periods	2,040	1,718	—322

in Bengal than is generally supposed, and—a most important consideration—the practice has apparently spread considerably since 1881. The statement in the margin, prepared from the table given at page 100, Volume I of the Census Report for 1881, and Table VIII-B of Volume IV of the census of 1891, compares the proportion of widows in every 10,000 Hindu females in four age-groups of the child-bearing period at each census.

The great decrease in the proportion of widows is very striking, and, as might be expected, the decrease is most marked



at the most marriageable ages, though it exists at all child-bearing ages. These results must be due to one or more of three causes—*first*, there must have been a decrease in the comparative number of infant-marriages of girls, as the widows in the first period are so much fewer than in 1881; *secondly*, there may have been a general increase in the practice of widow-marriage; and, *lastly*, there may have been a great addition to Hinduism from those tribes and castes who do not practise infant-marriage, and allow the marriage of widows. To what extent each of these influences has been at work it is impossible to say: probably each has contributed its share; but bearing in mind the extreme conservatism of Hindu society, the efforts of some sections of the community to raise their social position by encouraging infant-marriage and forbidding the remarriage of the widowed, and the almost imperceptible progress which any social reform of this magnitude can make in so short a period as ten years, the Lieutenant-Governor is disposed to think that the third of the suggested influences may have been the most potent.

47. The statistics on which Mr. O'Donnell's general conclusions are based have been worked out in great detail for each caste and tribe, and have been exhibited in a series of elaborate tables. In dealing with the question of marriage by caste, however, the Census Superintendent appears to have fallen into a serious error; for he has included under the title of sub-caste not only the sub-castes properly so-called, but also the exogamous sections of a caste and its hypergamous groups. Thus Mr. Risley's enquiries have established the fact that in the great Bihar caste of Buhhans (which according to the local proverb contains as many subdivisions as there are sorts of rice) there are no sub-castes; yet Mr. O'Donnell has returned 675. The same may be said of the Rajputs, of whom 634 sub-castes are reported from the Patna Division alone. Again, the Bagdis, a Western Bengal caste, although they have, so far as is known, only 14 sub-castes (which are enumerated by Mr. Risley), have a large number of sections: Mr. O'Donnell has reported the existence of 120 sub-castes of Bagdi, most of which it is almost certain are really exogamous sections. As the statistics on which Mr. O'Donnell's conclusions are based are preserved in manuscript, the Lieutenant-Governor has directed that they may be made over to Mr. Risley for use in the preparation of the revised edition of his "Castes and Tribes of Bengal," when the figures now given will be examined and incorporated after correction.

48. The tendency to elaboration in the information collated at each successive census has been conspicuously displayed in the statistics of education prepared from the census figures of 1891. Not only have they been worked out for both sexes and for all religions, as in 1881, but they include the elements of age and caste, and they record the ability or inability of the population to read and write English, and the castes of those who have attained this proficiency. For the purpose of testing the accuracy of the figures obtained at the census, an obvious standard is available in the figures of the Department of Education. In 1881 the Superintendent of Census and the Director of Public Instruction exchanged congratulations upon a general accord in the two sets of figures, which argued the accuracy of both. On the present occasion in place of accord there is an excessive divergence both from the census figures of 1881 and the departmental figures of the year 1890-91; but the Census Superintendent stoutly maintains the accuracy of his statistics, and in consequence impugns the correctness of those supplied by the Department. It appears that according to the census the number of male pupils in British territory in 1891 was 883,990 against 992,559 in 1881 and 1,358,169, as returned by the Director of Public Instruction for 1890-91. A reference to the results obtained in other provinces shows that everywhere except in Madras the same phenomena occur; and Mr. O'Donnell cites this fact as some evidence of the probable correctness of his compilation. The Lieutenant-Governor has no reason to doubt the accuracy of the totalling operations; but he cannot accept as correct the facts recorded in the schedules, without also concluding that there exists among the officials of the Department of Public Instruction, not only in Bengal, but in every province but one of the Empire, a conspiracy to supply false returns to Government. Rather than adopt such a conclusion, the Lieutenant-Governor prefers to think that by some fault of translation, or some misunderstanding of the instructions,

enumerators have very largely understated the number of persons falling under the category of "learners." It has been suggested that the enumerators put a somewhat strict interpretation on the expression "learning," and on the one hand, returned as illiterate all the young children, and those who attend school irregularly are taught little and learn still less, and that, on the other hand, they returned as literate those who could read and write, although they were still scholars, and should have been returned as "learning."

49: Taking the figures as they stand, however, the following statement gives an abstract of the statistics for every 10,000 of each of the two principal religions:—

HINDUS.						MUSULMANS.					
Males.			Females.			Males.			Females.		
Learning.	Literate.	Illiterate.	Learning.	Literate.	Illiterate.	Learning.	Literate.	Illiterate.	Learning.	Literate.	Illiterate.
205	1,004	8,701	10	36	9,954	178	553	9,269	4	9	9,987

These figures afford ample food for reflection. As regards males, they show that 60 per cent. more Hindus are "learning" than Musalmans, and that the Hindus who can read and write are proportionately nearly twice as numerous as the Muhammadans. Among females ten Hindus are learning to every four Musalmans, and the proportion of Hindus who can read and write is just four times as high as that of Musalmans. The totals of illiterates are unnecessarily swollen by the inclusion of children and infants: in the Report on the Census of 1881 the Superintendent eliminated all children below five years of age, and worked out the proportion of learners, literates and illiterates in the remainder of the population, and the Lieutenant-Governor would have been glad had Mr. O'Donnell followed the same plan. As it is, it is impossible to institute a comparison between his carefully-prepared tables and those of the Census of 1881. The statistics of literacy are of the most satisfactory description. "The number of men in British territory who can read and write has increased from 1,955,177 to 2,948,794, or exactly 50 per cent., while for women the progress has been still larger, viz. from 60,567 to 109,684, or by 80·9 per cent." For males the increase appears in every district without exception, and the same is the case with females, except in those districts where it is almost certain that there was an excess in the returns of 1881. The largest increase appears in Bihar, the Patna Division having an advance of 85·4 per cent., and that of Bhagalpur an increase of 87·7 per cent.

50. An elaborate statement compares, district by district, the educational statistics of the sub-provinces, and Mr. O'Donnell's conclusions are these:—

"1. Western Bengal is the best educated division of the Lower Provinces, being closely followed by Eastern Bengal, which would excel it but for the great contingent of pupils and literate found in the metropolitan towns within the former area.

"2. In the Lieutenant-Governorship, including its tributaries, the proportion of Hindu literates is roundly double that of Musulmans.

"3. In Eastern Bengal, which is a stronghold of Islam, this proportion is still more unfavourable to Musulmans, Hindu literates exceeding them threefold.

"4. On the other hand, in the great Hindu countries of Orissa and Bihar, the small Muhammadan communities quite hold their own in the field of education, whilst in South Bihar they have decidedly the advantage."

Great as has been the advance of Bihar, it is a significant fact that the number of literate and pupil Hindus in Patna and Muzaffarpur, the two best educated districts in that sub-province, only brings them to the level of the most backward districts of Northern Bengal, which holds the lowest place among the divisions of Bengal Proper. On the other hand, a statement of the pupils and literates of different ages shows that great progress has been made in recent years in Bihar, since it is the only sub-province, besides Western Bengal, in which the proportion of males between the ages of 15 and 25 years able to read and write is greater than that of the literate over 25 years of age. In the progress of education lies the best hope of the prosperity of the Biharis. By the admixture of Hindus and Muhammadans, and the competition thereby engendered, the progress of education among the latter has been stimulated.



51. The statistics of knowledge of English now collected for the first time yield some interesting results; before they can be turned to any practical use, the figures of the next census must be awaited. Excluding students, who number 160,643, there are 158,414 males in the Lower Provinces able to read and write English, of whom 141,842 are other than Europeans, Eurasians, or Native Christians: of these, 80,108, or rather more than half, come from the metropolitan area. The number of women who can speak English, subject to the same limitations as above, is only 2,927. From a consideration of the educational statistics of Bengal during the last twenty years, the Lieutenant-Governor would have thought that Mr. O'Donnell's statistics of English-knowing people were under the mark, but assuming them to be correct, it would seem to follow that the number of natives of Bengal directly accessible to the influences of Western thought communicated through the medium of English is less than one half per cent. of the population. Those more or less directly accessible to such or similar influences conveyed through the medium of the vernacular languages and English combined are a little over 4 per cent. of the inhabitants. But, probably, many more are indirectly influenced. What the figures will be ten years hence, or in how many years Bengal will attain to the extension of English speech which prevails in Madras, it is useless to speculate.

52. The value of the statistics of language obtained at the census of 1891, like that of the figures for castes and tribes, is almost entirely ethnological. The inclusion of this information in the census schedule and its reproduction in the tables seems to be somewhat of an anachronism and a survival, and although the process involved an inconsiderable degree of trouble and expense, it seems questionable whether it should be undertaken again. In 1878 the Committee which met to arrange for the census of 1881 recommended as the best way of ascertaining the nationality of each individual, the collection and compilation of figures for birth-place and mother-tongue, intending that from a combination of the two should be deduced the nationality of every individual. But the Government of India rightly recognised the difficulty of such a combination, and disapproved the proposal, directing that the two sets of figures should be separately shown. At the Agra Census Conference of 1889 the suggestion was made that information as to mother-tongue should not be asked, but the majority of the members were of opinion that for purposes of comparison with the figures of 1881, and as a check on the returns of caste and tribe in 1891, the statistics might be collected again. The figures show that Bengali is the parent-tongue of more than half the population, and Hindi that of more than one-third, Uriya being spoken by rather more than 6 per cent. of them, and the minor languages by about three millions, or nearly 4 per cent. Wherever in any district or province there is a considerable number of persons speaking a foreign language, the phenomenon has been investigated, and a satisfactory explanation given, which is almost always immigration or the importation of foreign wives.

53. As in 1881, the infirmities of the people, which were deemed of sufficient importance for record in the census schedule, were insanity, total blindness, deaf-mutism and leprosy, and the following table gives succinctly the principal results of the census in regard to them:—

INFIRMITIES.	NUMBERS.				PROPORTION IN 10,000 OF THE POPULATION.						NUMBER OF AFFLICTED FEMALES TO 100 AFFLICTED MALES.	
	Males.		Females.		Males.		Females.		Both sexes.			
	1881.	1891.	1881.	1891.	1881.	1891.	1881.	1891.	1881.	1891.	1881.	1891.
Insane	18,396	15,274	12,369	10,854	5	4	3	2	4	3	67.62	67.78
Blind	47,086	37,360	50,364	36,114	13	10	14	10	14	10	117.51	96.74
Deaf-mute	52,893	43,155	32,062	26,710	15	11	9	7	12	9	61.82	61.46
Lepers	42,283	31,716	14,210	11,074	12	9	4	3	8	6	53.67	33.62
Total afflicted	160,558	130,511	109,065	84,852	45	34	30	22	38	28	68.24	64.10

There has been a large decrease in all infirmities since 1881, but the extreme similarity of the proportion of females to males among the afflicted in both years (except in the case of blindness) seems to prove the accuracy of the

returns: moreover, every other province in the Empire shows a similar decrease, except in regard to blindness in the Punjab, and deaf-mutism in Madras, the North-Western Provinces and the Punjab. The position of Bengal with reference to other provinces of India is concisely explained by Mr. O'Donnell in the following passage:—

"Insanity is now most prevalent in Bengal, which takes the place held by the Punjab in 1881. Mental disease seems to be phenomenally rare in the North-Western Provinces, but the records of both censuses appear to establish the accuracy of the figures. It is a noticeable fact in this connection, as appears later on, that in Bihar, whose inhabitants nearly resemble those of the North-Western Provinces in physique and social characteristics, the same practical absence of insanity exists. As in 1881, the Punjab and the North-Western Provinces, although their relative position is reversed, suffer most from blindness, a fact due probably to the dust-storms that prevail during the hot season, and consequent ophthalmia. In Bihar, especially in the torrid area south of the Ganges, the same frequency of blindness is observed. In 1881 there were twice as many deaf and dumb in the Lower Provinces in proportion to population as in any other province, except Bombay. In 1891 the Punjab takes the first place, but this affliction is still comparatively prevalent in Bengal. In regard to the dreaded disease of leprosy, Bengal, although it shows a large diminution, still holds the first place by a long interval. Taking all infirmities together, Bengal, which nearly approached the highest Indian average (in Bombay) in 1881, is now low in the scale of the afflicted, being more exempt than any other province, except Madras."

At the present census statistics of infirmities were compiled by castes, and Mr. O'Donnell has discussed the results; but the numbers of the afflicted are so small that it is difficult to found any useful generalization upon the figures.

54. Insanity is most common in Bengal Proper, rare in Bihar, and almost unknown in the areas peopled by races of Dravidian descent. The decrease in the total recorded as compared with 1881 is most probably due to the more careful exclusion of idiots. The great mass of the insane are returned as between 20 and 45 years of age, the period when acquired mania is most common in all countries. The castes and races which show the largest proportion of insanes are Malos, Kochhs, and Baishnabs. The Census Superintendent, looking at the areas where insanity is most and least prevalent, makes the suggestion that much of it is due to the use of toxic drugs, a theory which finds some support from the fact that the sect or caste of Baishnab, who are understood to indulge in the use of such drugs, is so largely represented among the insanes.

55. The report shows clearly that the castes which suffer most from blindness are those whose trade keeps them continually in a smoky atmosphere, *e.g.*, potters, washermen and blacksmiths, while those who work much in the open air enjoy great immunity. The disease is also comparatively common among the tribes of the eastern frontier and the low and semi-Hinduized tribes of Western Bengal, Chutia Nagpur and South Bihar, the cause probably being unclean habits of life. Of the blind, 41 per cent. of the men and 53 per cent. of the women are returned as more than 50 years of age.

56. Deaf-mutism is again shown to be most prevalent in those tracts where cretinism is common, *i.e.*, the lower slopes of the Himalayas from Champaran to Kutch Bihar, and the districts watered by snow-fed streams from the same source. There is a decrease of 25 per cent. since 1881 in the proportion of deaf-mutes to the population, which is probably due to a more careful exclusion of those who are dumb but not deaf. The Maghs and Malos of the eastern frontier again take a high place, and other castes afflicted above the average are the Goalas and Baishnabs of Northern Bengal, and the Kamars, Sunris, Tantis, Koiris, Kahars, and Kurmis of Bihar.

57. In regard to leprosy, a disorder to which so much attention has lately been directed, it is found that the total number of lepers, both male and female, has declined, but the disease is prevalent in the same areas as in 1881. This decrease probably connotes a more careful discrimination by the enumerators between mere leucoderma or white leprosy and the true tubercular and corrosive disease. One district officer suggests that the decrease in the number of lepers returned is due to a widespread rumour that all lepers were to be formally deported to asylums. No caste or district is exempt from this terrible disease; Kuch Bihar and the districts of Western Bengal suffer most severely, followed

closely by those of the Orissa Division, while in the Chutia Nagpur Tributary States the disease is almost unknown. The Bediyas of Western and the Kshatryas of Northern Bengal suffer most severely, while a high proportion is also recorded for the Bauris, Khairas, Sunris, and Khatrias of Western Bengal, the Malos of Eastern Bengal, and the Kamars of North Bihar. The caste statistics enable the Superintendent to refute the theory suggested in 1881, that there was considerable concealment of female lepers, and it seems to be established that this disease attacks males more frequently than females.

58. In respect of the treatment of statistics of castes, tribes, and races, the report of 1891 differs greatly from that of 1881. In 1881 the opinion was entertained that it did not

Castes, tribes, and races.

come within the proper domain of the Census Superintendent's work to attempt any exhaustive treatment of so large a subject. Mr. O'Donnell, on the other hand, has devoted much time and labour to discussing the views of Messrs. Nesfield, Risley, and others on many intricate anthropological questions. Upon these matters the Lieutenant-Governor does not propose to enter, being of the opinion that their interest is ethnological rather than statistical. Since the Census Report for 1881 was written, Mr. Risley has published his "Castes and Tribes of Bengal," which, though it has not in the provisional edition supplied a workable classification of castes and an index of sub-castes as was hoped when he first undertook the task, has placed before the public a great mass of information with which Mr. O'Donnell's statistics may with much advantage be compared by experts in ethnological investigations.

59. An interesting table in Mr. O'Donnell's Chapter XV gives in juxtaposition the totals of the different castes at the three census periods—1872, 1881 and 1891, and it shows clearly a very marked agreement between the figures of the three enumerations, allowance being made for the growth of the population in each decade. The paragraphs which discuss and explain the variations of each caste are full of interest, and Mr. O'Donnell seems to the Lieutenant-Governor to show successfully that wherever there has been a real decrease in the number of any caste it can be traced either to the fact that its chief home is in an unhealthy part of the province, or to its members forbidding widow-marriage. The first explanation accounts for the great diminution in the numbers of Sudgops and Kaibarttas, who chiefly inhabit the fever-stricken Burdwan Division, while the second applies to Brahmans, Kayasths and Baniyas. Both influences have combined to reduce by 15·6 per cent., since 1872, the numbers of the great caste or tribe of Kochh, who not only inhabit the most unhealthy part of the Lower Provinces, but are also dominated at the present time by an extreme desire to raise themselves in the social scale of Hinduism—a desire which has led them to adopt with zeal the practice of infant-marriage of girls and to forbid widow-marriage.

60. The collection of statistics of employment has at all times and in all countries proved to be a fruitful source of labour and expense, giving quite incommensurate results.

Occupations.

Mr. O'Donnell states that an elaborate industrial census of the German Empire was undertaken in recent times, which cost nearly a million of marks, and was no nearer statistical accuracy than the census of Bengal itself. In 1881 Mr. Bourdillon reported that the compilation of these statistics was the most tedious, complicated and delicate task in the whole of the operations of the census, and he calculated that to it must be debited at least one-third of all the labour, time and money expended upon the preparation of the census tables, while at the same time the result was of very little value. Mr. O'Donnell's experience is the same; but one serious disadvantage under which he laboured has been counterbalanced by one great advantage which did not exist in 1881. In 1881 the classification of occupations adopted for the census of Great Britain was adopted by the Government of Bengal under the orders of the Supreme Government, but the results were so unsatisfactory that Sir Ashley Eden authorised the preparation of additional tables for the Lower Provinces, based upon a classification more in accordance with the actual facts of native life. In 1891 the English system was rejected and a more appropriate classification substituted for it. But orders passed after the Agra Conference had the unfortunate effect of obscuring the occupations of women and of lessening the value of the information collected on the subject. In 1881 the enumerator was told to enter the occupation of all women who actually worked, and to enter all others as unoccupied; in 1891 his orders were these: "In the case of children and

women who do not work, enter the occupation of the head of their family or of the person who supports them, but do not leave this column unfilled for any one, even an infant." The obvious intention, viz., to ascertain the number of persons dependent on each industry, was an excellent one, but the result has been disappointing, since the real facts as to female occupations in 1891 were not recorded, and it has become impossible to institute any comparison with the figures of 1881. The extent of this inconvenience is clearly set forth in the following extract from the report:—

"The immediate result of the above-quoted order was to absolutely obliterate all female occupations. It may be assumed that practically all males over 15 years of age, entered as subsisting by a profession or trade, actually work at it, but no such presumption exists in the case of women, and it is consequently impossible to discriminate between workers and dependents, say, between a lady doctor and a doctor's wife, a female landholder in her own right and a landlord's daughter, and so on. Had this uncertainty extended only to the professional or even to the commercial classes, the loss would not have been great, as we know that their women-folk are generally dependent. It is when we come to consider the great agricultural and industrial orders that the extent of the information thrown away is really felt. It is a known fact that a very large section of women of the peasant class in Bihar work in the fields in a manner that the wife of the Bengali agriculturist rarely does. The occupation returns of 1881 showed as many as 1,154,101 working agriculturists of the female sex in Bihar, against 413,972 in a population twice as numerous in Bengal Proper. Few facts would be more interesting than to determine whether these numbers have relatively changed in the past decade. There is reason to believe that poverty and an excessive population are forcing the male population of Bihar to seek the means of livelihood elsewhere, whilst their women-folk are left to till the fields at home. On the other hand, the growth of wealth in Eastern Bengal and the extension of caste ideas amongst the aboriginal races of the Western districts are causing the women of Bengal Proper to withdraw more and more from an active share in the employments of peasant life. The class of ordinary day-labourers receives from women a considerable contingent, which numbered as many as 1,101,216 in Bihar in 1881, and only 172,113 in Bengal Proper in that year. How many of the 4,169,959 female day-labourers, returned in the whole Province in 1891, are actual workers, and how these workers are distributed in the different provinces and districts, does not appear in the tables appended to this report. The number of female mill-hands employed in the jute and cotton factories of Calcutta and Howrah was a matter worth ascertaining, but the actual workers are necessarily confused with the housewives, who have no connection with these industries, except through their fathers or husbands. There is a large body of women-barbers in Bengal, but they have disappeared amidst the crowds of barbers' wives, daughters, and mothers, most of whom do not follow that occupation. In Nadia some hundreds of women used to make the earthenware figures the district is famous for. It would be interesting to determine whether this trade is passing further into female hands or the reverse. It is believed that the number of Hindu priestesses is smaller than it formerly was. The number of school-mistresses is undoubtedly increased, but they are indistinguishable from the possibly illiterate women-folk of schoolmasters, and so the degree of advance in this important guide to the development of female education is unknown. Whether the number of female medical practitioners and vaccinators is appreciably increasing is a matter of doubt, yet these and a dozen other similar questions, which the old method of enumerating occupations would fairly accurately answer, have been left in utter uncertainty, when every girl and every woman is entered under the occupation of the man who supports her."

61. In these circumstances it would serve no useful purpose to scrutinise the occupations of females. The statistics of male occupations are disorganised to a less extent, and the report contains several elaborate tables setting forth the leading points ascertained by the enumerators. Taking the figures for what they are worth, the following table gives the totals of the seven great classes by sex in the Lower Provinces:—

OCCUPATIONS.	BRITISH TERRITORY.				PRINCIPAL STATES.	
	Urban.		Rural.		Males.	Females.
	Males.	Females.	Males.	Females.		
Class A—Government ... ..	73,657	37,077	319,247	281,276	21,646	17,786
Class B—Pasture and agriculture ... ..	328,016	255,295	22,408,167	22,544,455	1,122,119	1,094,644
Class C—Personal services ... ..	238,752	184,906	1,070,878	1,007,815	35,095	31,707
Class D—Preparation and supply of material substances ... ..	565,695	372,234	4,000,632	4,220,405	161,336	162,400
Class E—Commerce, transport, and storage ... ..	225,031	139,764	808,557	1,764,848	19,979	14,797
Class F—Professions ... ..	127,110	96,954	580,844	584,092	21,811	17,751
Class G—Indefinite and independent ... ..	316,963	331,432	4,379,960	4,839,245	220,104	218,113
Total ...	1,005,224	1,538,699	33,658,075	34,245,030	1,001,800	1,556,347

62. The pursuits of the inhabitants of Bengal are shown to be as largely agricultural as before. Among the rural population as many as 65·61 per cent. are employed in agriculture, and even in towns the percentage is as high as 16·77. In villages the indefinite class comes next with 12·01 per cent., followed by those engaged in preparing food and drink, who amount to 4·54 per cent. of the total. In the towns naturally the disproportion is not so marked; pressing closely on the 16·77 per cent. employed in agriculture, follow 15·56 per cent. in the indefinite class, 12·54 per cent. employed in personal, household and sanitary service, and 10·19 per cent. who supply food and drink; manufactures, commerce, transport and the liberal professions all return a proportion of more than 5 per cent. Much was expected from the statistics of occupations connected with interest in land, to which attention was drawn more than twenty years ago by Sir G. Campbell; but it was found that the terms employed were so numerous, and that the same terms bore in different areas meanings so discrepant that nothing but very wide grouping was possible. So again at the late census the attempt was for the first time made to ascertain what number of persons, and of what pursuits, supplement their earnings by profits derived from some interest in land. The results form Imperial Table XVIII., and are reported to be fairly correct for twenty-one districts, well distributed over the province.

63. The whole of the operations of the census, with the exception of those relating to the census of Calcutta, were from the first conducted by Mr. O'Donnell, and the Lieutenant-Governor cordially acknowledges the ability and assiduity which he has brought to bear upon his important duties, and the general success with which his task has been discharged. A great mass of valuable information has been collected with economy and despatch, and the results have been set forth in a careful, painstaking and interesting report. Sir Antony MacDonnell has read with pleasure the testimony which the Census Superintendent bears to the willing help rendered to him by district officials not only in carrying out the elaborate arrangements which preceded the actual enumeration, but in supervising the compilation of the district figures when the enumeration was completed. These additional duties cast a heavy burden on many overworked District Officers, and the Lieutenant-Governor desires once more to express his acknowledgments to them for the loyalty with which these duties were discharged: he has already acknowledged the obligations of the Government to the numerous non-official persons who have also assisted in this great work. Mr. Lewis, the Superintendent of Government Printing, Bengal, is again mentioned in terms of praise for the excellence and rapidity with which the Press performed the heavy task involved in the preparation and despatch of myriads of enumeration books and compilation forms to many districts. The Assistant Superintendent of Census Operations, whose services have also been brought specially to the notice of Government, has already been rewarded by promotion to an appointment in Assam.

By order of the Lieutenant-Governor of Bengal,

J. A. BOURDILLON,

*Offg. Secretary to the Govt. of Bengal.*

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 15th July 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL.			
1	Burdwan July 15, '93	5.53	Ordinary monsoon weather. <i>Aman</i> is being transplanted. <i>Aus</i> and jute doing well. Fodder sufficient. Prices of common rice:—
	Kalna ...	1.84	
	Katwa ...	1.05	
	Raniganj ...	1.07	
			Srs. Burdwan ... 10 to 14 Kalna ... 9½ to 13 Katwa ... 12 Raniganj ... 12 } per rupee.
2	Bankura „ 15, '93	3.47	Weather—cloudy with occasional light showers. Transplantation of <i>aman</i> going on. Common rice is selling at—
	Vishnupur ...	2.62	
			Srs. Sadar ... 11½ Vishnupur ... 11½ } per rupee.
3	Birbhum „ 15, '93	6.16	Ordinary monsoon weather prevails. Frequent showers. Transplanting of paddy seedlings in progress. Sugarcane not flourishing owing to continued rain. Price of common rice 12 to 15 seers per rupee.
	Rampur Hāt ...	2.59	
4	Midnapore ..		Report not received.
5	Hongkly „ 15, '93	1.30	Weather—hot with occasional showers. The damage done to the paddy seedlings by floods has not apparently been serious or very extensive. Some jute on the lower lands may also have been injured, but the extent of such damage also is inconsiderable. All crops now progressing favourably and prospects generally very good. Prices of common rice:—
	Serampore ..	0.13	
	Jahanabad ...	1.20	
			Srs. Sadar ... 11 to 12 Serampore ... 10 to 11½ Jahanabad ... 11 to 12 } per rupee.
6	Howrah „ 15, '93	4.37	Weather—seasonable. The late abnormal rain has destroyed the seedlings and retarded agricultural operations. New seedlings are coming up on high lands. Condition of cattle good. Fodder and water-supply sufficient. Price of rice 10 to 11 seers per rupee.
	Ulubaria ...	1.70	
7	24-Parganas „ 15, '93	1.25	Weather—hot and cloudy with occasional light showers. Transplantation of <i>aman</i> going on except in some parts of the Diamond Harbour subdivision where the lands are still flooded. Prospects somewhat improved since last week. No complaints of want of fodder and water. No cattle-disease prevalent. Price of common rice varies from 10 to 11½ seers per rupee.
8	Nadia „ 15, '93	1.91	Weather—close and damp. Prospects on the whole fair. Transplantation of <i>aman</i> rice going on. Dry weather wanted.
	Kushtia ..	3.71	
	Meherpur ...	1.55	
	Chnadanga ...	3.95	
	Ranaghat ...	2.62	
9	Khulna „ 15, '93	3.23	Weather—bright and rainy alternately. Some damage reported from Bagerhat owing to incessant rain, elsewhere prospects improved by the occasional cessation of the rain. Coarse rice sells at 9 to 11 seers per rupee. Fodder for cattle sufficient.
	Bagerhat ...	3.00	
	Satkhira ...	1.97	
10	Jessore „ 15, '93	0.77	Weather—cloudy with occasional showers. Paddy on high lands progressing well. Transplantation of <i>aman</i> going on. Manufacture of indigo has commenced. Fodder and water sufficient. Cattle-disease reported from Salkhya in Magura and Monirampur in the Sadar subdivision. Price of rice has risen.
	Jhenida ..	1.39	
	Magura ...	2.19	
	Narail ...	1.70	
	Bangaon ...	1.08	
11	Murshidabad „ 15, '93	1.30	Weather—seasonable. Prospects of standing crops on the whole good, but the recent rain is said to have done some damage to the paddy crops. Fodder available for cattle. Coarse rice sells at 11 seers per rupee.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.															
BENGAL—conold.																		
CHITTAGONG DIVN.	12 Chittagong July 15, '93	0.51	Weather—unsettled. Transplanting of <i>aus</i> is still going on. Prices steady. Condition of cattle generally good. Supply of fodder sufficient.															
	13 Noakhali „ 15, '93	3.41	Weather—cloudy with occasional rain. <i>Aus</i> is being reaped, but the state of the crop is not good. <i>Aman</i> is being transplanted. Fodder not sufficient. Water available. Cattle-disease reported from all stations. Price of rice stationary.															
	14 Tippera „ 15, '93	1.57	Weather—cloudy and rain almost every day. Harvesting of <i>aus</i> paddy is vigorously being pushed on. Loss of early sowing of paddy owing to flood for unusual downpour of rain is still being reported. Price of rice and other articles of food is on the increase.															
	15 Chittagong Hill Tracts. „ 13, '93	2.47	Weather—cloudy throughout the week with occasional showers of rain. <i>Jun</i> paddy plants progressing. Ploughing in low lands continues, and seeds are being sown in nurseries. Common rice being sold at 8 seers per rupee. No cattle-disease reported.															
DACA DIVN.	16 Dacca „ 15, '93	3.03	Weather—cloudy and rainy. Prospects of standing crops good. Harvesting of <i>aus</i> and jute going on. Rivers are rising gradually. Common rice selling at from 9 to 12 seers per rupee. Fodder available. No cattle-disease.															
	17 Faridpur „ 15, '93	1.32	Weather—seasonable. Standing crops partially damaged by the sudden rising of the rivers. Common rice sells at 10 seers per rupee at Faridpur 11 seers at Madaripur, and 12 seers at Goalundo. Condition of cattle reported good generally, but cattle-disease still prevails in two thanas in Madaripur.															
	Goalundo ...	0.92																
	Madaripur ...	2.08																
	18 Backergunge „ 15, '93	1.94	Weather—seasonable. Prospects of crops fair, but <i>aus</i> has considerably been damaged in some places. <i>Aman</i> has been sown or transplanted to the extent of 4 annas up to date. Common rice is being sold from 9 to 12 seers per rupee. Fodder and water sufficient.															
Pirojpur ...	2.20																	
Patuakhali ...	2.53																	
Bhola ...	0.81																	
19 Mymensingh „ 15, '93	8.07	Weather—generally cloudy with constant rain. Probable outturn of <i>aus</i> paddy is 10 annas. Heavy rain may injure the <i>aus</i> and jute to some extent in the low lands. Common rice sells at 11 seers per rupee. Condition of cattle good. Supply of fodder sufficient.																
RAJSHAHI DIVN.	20 Dinajpur „ 8, '93	3.67	Weather—rainy and cloudy with occasional breaks. Standing crops doing very well. Outturn of <i>bhadoi</i> and jute expected to be 16 annas. Transplantation of <i>haimanti</i> in full swing. Prices of rice:—															
	Thakurgaon ...	13.42																
			<table><tr><td>Sadar</td><td>...</td><td>...</td><td>...</td><td>Srs.</td></tr><tr><td>Thakurgaon</td><td>...</td><td>...</td><td>...</td><td>11½</td></tr><tr><td></td><td></td><td></td><td></td><td>10 to 12</td></tr></table> } per rupee.	Sadar	...	...	...	Srs.	Thakurgaon	...	...	...	11½					10 to 12
	Sadar	...	...	...	Srs.													
	Thakurgaon	...	...	...	11½													
					10 to 12													
	21 Rajshahi „ 15, '93	3.09	Weather—seasonable with a tendency towards excessive moisture. Complete sunshine for several days is much needed. Jute is giving a poor outturn; and <i>aus</i> and <i>aman</i> are being affected by excessive moisture. Water and fodder-supply ample. No cattle-disease has been reported anywhere. Price of rice varies from 10 to 14 seers per rupee.															
	Nalor ...	0.80																
	Naugaon ...	5.83																
	22 Rangpur „ 15, '93	5.81	Ordinary monsoon weather. Transplantation of <i>aman</i> in progress; somewhat retarded by heavy rain. Prospects favourable. Common rice 11 to 13 seers per rupee.															
Gaibanda ...	4.60																	
Nilphamari ...	14.06																	
Kurigaon ...	12.92																	
23 Bogra „ 15, '93	3.05	Weather—unsettled. Standing crops are reported to have suffered somewhat from the heavy rain. Transplantation of <i>aman</i> is going on. Common rice sells at 12 seers per rupee. Fodder and water sufficient.																
24 Pabna „ 15, '93	3.86	Weather—cloudy and rainy. <i>Aus</i> and jute on low lands are being cut. Fair weather now needed for the standing crops. Common rice sells at 11 seers per rupee at Pabna and Rs. 3-14 to Rs. 4 per maund at Sirajganj. Fodder and water-supply ample.																
25 Darjeeling „ 15, '93	6.48	Weather—rainy up to Thursday (13th); since fairly fine. In the hills:— <i>Bhutia</i> , <i>kangni</i> , <i>phaphur</i> and potatoes being harvested. <i>Bhadoi</i> and <i>chota marua</i> progressing favourably. <i>Bura marua</i> and <i>aghani dhan</i> being transplanted. In the Terai:—Transplanting of <i>haimanti</i> paddy commenced. Jute and <i>bhadoi</i> doing well. Prices of coarse rice:—																
Siliguri ...	10.63																	
		<table><tr><td>Hills</td><td>...</td><td>...</td><td>...</td><td>Srs.</td></tr><tr><td>Terai</td><td>...</td><td>...</td><td>...</td><td>9</td></tr><tr><td></td><td></td><td></td><td></td><td>11</td></tr></table> } per rupee.	Hills	...	...	...	Srs.	Terai	...	...	...	9					11	
Hills	...	...	...	Srs.														
Terai	...	...	...	9														
				11														
25 Jalpaiguri „ 15, '93	6.90	Weather—rainy and hot. <i>Bhadoi</i> paddy has in some places become fit for being harvested. Prospect of jute favourable. Transplantation of <i>haimanti</i> paddy going on. Price of rice stationary. Fodder and water sufficient. No cattle-disease.																

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.																					
BIHAR.																								
BHAGALPUR DIV.	27	Monghyr July 15, '93 Bogusarai ... Jamui ...	3.08 6.23 0.79	Cloudy weather continues, with intervals of excessive heat. High land crops in excellent condition. Low land crops suffering from excessive rainfall. Poor outturn of <i>makai</i> and <i>marua</i> expected. Continued sunshine needed. Paddy transplantation commenced. Indigo—plenty of plant but little produce owing to rain. No cattle-disease. Fodder and water-supply sufficient. Prices stationary.																				
	28	Bhagalpur „ 15, '93 Banka ... Madhipura ...	7.22 4.26 0.60	Weather—clear with clouds and showers every now and then. Rain in north very beneficial. There has been too much rain in the Sadar and south, where <i>makai</i> and <i>marua</i> have been damaged to the extent of 6 annas. Transplantation of rice in progress. Common rice 13 seers 14 chitaks per rupee.																				
	29	Purnea „ 15, '93 Kishanganj ... Araria ...	5.40 13.24 9.69	Constant heavy rain. <i>Bhadai</i> and jute damaged in parts by excess of water, elsewhere doing well. <i>Aghani</i> seedlings also damaged. Low lands too full of water for transplantation. Seedlings not fit for transplantation on high lands. Indigo outturn very bad owing to excessive rain and floods. Prices stationary.																				
	30	Malda „ 15, '93 Chanchal ... Shibganj ...	4.66 4.33 4.20	Weather—cloudy and wet. Rainfall was unprecedented throughout the week. Rivers rising fast. <i>Bhadai</i> paddy on low lands has in consequence been slightly damaged in some places. Winter rice being transplanted. Price of common rice 11 to 15 seers per rupee. No want of fodder.																				
	31	Sonthal Parganas „ 15, '93 Deoghur ... Godda ... Jamtara ... Pakur ... Rajmahal ...	3.71 3.50 4.61 3.27 4.78 8.82	Weather—rain every afternoon; mornings generally fine. Transplanting nearly finished; promises well in Dumka and Pakur. Indian-corn in great danger. Sugarcane doing well in Jamtara, but prospects poor in other respects from excess of rain.																				
	32	Patna „ 15, '93 Bark ... Bihar ... Dinapur ...	5.00 5.08 3.62 8.19	Weather—cloudy and rainy. Transplantation of <i>marua</i> completed. Paddy seedlings look well. The continued rain has somewhat injured the low land crops where weeding operations have been much retarded. Prices of common rice:— <table><tr><td>Sadar</td><td>...</td><td>...</td><td>...</td><td>Srs. 15½</td></tr><tr><td>Bark</td><td>...</td><td>...</td><td>...</td><td>13</td></tr><tr><td>Bihar</td><td>...</td><td>...</td><td>...</td><td>16½</td></tr><tr><td>Dinapore</td><td>...</td><td>...</td><td>...</td><td>13</td></tr></table> } per rupee.	Sadar	...	...	...	Srs. 15½	Bark	...	...	...	13	Bihar	...	...	...	16½	Dinapore	...	...	...	13
	Sadar	...	...	...	Srs. 15½																			
	Bark	...	...	...	13																			
	Bihar	...	...	...	16½																			
	Dinapore	...	...	...	13																			
33	Gaya „ 15, '93 Jahanabad ... Aurangabad ... Nawada ...	5.31 7.10 4.00 1.31	Weather—rainy. The rain has been too much in places and thus damaged the <i>bhadai</i> crops somewhat. Prices as before. Common rice selling from 13 to 15 seers per rupee. Fodder and water-supply ample.																					
34	Shahabad „ 15, '93 Buxar ... Bhabhua ... Susaram ...	3.46 1.64 5.38 2.10	Heavy and frequent rain. <i>Bhadai</i> promises well. Sowing of <i>aghani</i> nearly completed. A spell of drier weather is wanted to check the growth of weeds.																					
35	Darbhanga „ 15, '93 Samastipur ...	3.49 4.25	Weather—cloudy and rainy. <i>Makai</i> is doing well. Transplantation of paddy and <i>marua</i> in progress. Prospects of sugarcane favourable. Fodder for cattle sufficient. Prices stationary.																					
36	Muzaffarpur „ 15, '93 Hajipur ...	4.41 5.55	Weather—cloudy throughout the week. Transplantation of paddy and <i>marua</i> nearly completed. Prospect of <i>makai</i> not favourable in Hajipur owing to excessive rainfall. State of standing crops in the Sadar subdivision good. Cases of <i>dakka</i> , a disease among cattle, prevailing in some places in the mufassal. Eighteen deaths from this disease reported from Muzaffarpur elaka. Supply of fodder and water sufficient. Prices stationary.																					
PATNA DIVISION.																								



No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR—consolid.</b>			
PATNA DIVISION—consolid.	37 Saran July, 15, '93	3.71	Weather—seasonable. A break in the rains wanted for indigo and <i>bhadoi</i> crops. Prospects of crops very good at present. Fodder and water plentiful. Prices of common rice:—  Srs. Chapra ... .. 13 Siwan ... .. 12½ } per rupee. Gopalganj ... .. 13
	Siwan ...	1.89	
	Gopalganj ...	3.81	
38 Champaran „ 15, '93		8.27	Heavy rain daily. Paddy being sown and transplanted. <i>Makai</i> being weeded. Indigo suffering from the heavy rain. Fodder and water sufficient. Prices stationary.
<b>ORISSA.</b>			
ORISSA DIV.	39 Cuttack „ 15, '93	...	Weather—cloudy with occasional showers. Sowing and transplantation of <i>sarad</i> in progress. <i>Beali</i> doing well. Supply of fodder and water sufficient. Prices of common rice:—  Srs. c. Srs. c. Sadar ... .. 10 8 to 14 7 } Kendrapara ... .. 13 10 to 13 6 } per rupee. Jajpur ... .. 15 12 to 18 6 } Banki ... .. 15 12 }
	40 Puri „ 13, '93	0.21	
	Khurda „	1.75	
	Banpur ...	2.37	
41 Balasore „ 15, '93		1.79	Weather—fine but close, followed by rain yesterday (14th). Paddy seedlings being still transplanted. Prices of rice:—  Srs. Balasore ... .. 13 } Bhadrak ... .. 14 } per rupee.
<b>CHOTA NAGPUR.</b>			
<i>South-West Frontier Agency.</i>			
CHOTA NAGPUR DIV.	42 Hazaribagh July, 15, '93	3.39	Weather—seasonable. Sowing and transplanting in progress. Indian-corn damaged by excessive rain. Other crops doing well. Fodder abundant. Prices of common rice:—  Srs. Head-quarters ... .. 9 to 14 } Giridi ... .. 9 to 12 } per rupee.
	Giridi ...	2.29	
	43 Lohardaga „ 15, '93	7.71	
	44 Palamau „ 14, '93	3.18	
	45 Singhbhum „ 15, '93	0.82	
46 Manbhum „ 15, '93		3.48	Weather—seasonable. Condition of all crops good. Price of rice ranges from 9 to 12 seers per rupee. Cattle-disease reported from some villages in the Kolhan.
	Gobindpur ...	1.84	Weather—seasonable. Transplantation going on. Prospects so far good. Price of rice 10 to 12 seers per rupee. Fodder and water very sufficient.

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 18th July, 1893.H. H. RISLEY,  
Secy. to the Govt. of Bengal.

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.											
			AIR PRESSURE.				WIND.		TEMPERATURE.					
			Mean barometric height, 8 A.M., reduced to 32°.	Mean reduced to sea-level and constant gravity, lat. 45°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.
ORISSA.	Puri	Puri	29.636	29.601	—	SWly	261	91.2	9th July	77.6	14th July	90.0	80.0	85.0
	Puri	Gopalpore	29.633	29.604	+0.047	SWly	288	89.2	12th ..	76.3	12th ..	87.0	77.3	82.6
	Puri	False Point	29.629	29.592	+0.050	W	246	89.5	13th ..	76.1	15th ..	87.3	78.7	83.3
	Cuttack	Cuttack	29.554	29.577	+0.045	SWly	67	92.7	10th ..	76.8	13 & 14 ..	90.6	78.0	84.3
	Balasore	Balasore	29.561	29.566	+0.036	SW	126	91.4	13th ..	77.7	12 & 15 ..	89.4	78.6	84.0
SOUTH-WEST BENGAL.	Midnapore	Midnapore	29.492	29.670	+0.046	SW	87	92.3	13 & 14 ..	78.1	9, 12, 15 ..	90.6	78.4	84.5
	24-Parganas	Calcutta	29.604	29.671	+0.039	SW	72	89.6	13th ..	77.2	15th ..	87.9	79.2	83.6
	24-Parganas	Saugor Island	29.603	29.572	+0.041	SWly	333	89.2	9th ..	76.5	15th ..	88.1	81.3	84.7
	Howrah	Howrah	29.571	29.566	+0.035	SEly	109	92.3	13th ..	77.7	14 & 15 ..	89.6	78.3	84.0
	Nadia	Krishnagar	29.571	29.566	+0.035	SEly	109	92.3	13th ..	77.7	14 & 15 ..	89.6	78.3	84.0
NORTH BENGAL.	Khulna	Jessore	29.607	29.577	+0.023	SEly	77	91.5	12th ..	78.4	9 & 14 ..	89.2	79.0	84.1
	Burdwan	Burdwan	29.529	29.574	+0.040	Sly	75	92.6	13th ..	77.7	13th ..	90.1	79.3	84.7
	Burdwan	Raniganj	29.591	29.585	+0.053	SWly	54	93.7	12th ..	76.8	12 & 15 ..	91.1	77.4	84.3
	Bankura	Bankura	29.509	29.557	+0.041	Calm.	64	92.1	12 & 13 ..	76.6	14th ..	91.0	77.9	84.5
	Murshidabad	Berhampore	29.552	29.567	+0.018	Sly	89	89.6	10, 13, 14 ..	78.8	9 & 13 ..	88.4	79.4	83.0
EAST BENGAL.	Pabna	Sirajganj	29.584	29.580	+0.013	SEly	80	89.1	10th ..	76.7	13 & 14 ..	87.0	77.9	82.4
	Bogra	Bogra	29.561	29.573	+0.033	SEly	67	90.2	10th ..	76.2	12 & 13 ..	87.7	77.1	82.5
	Rajshahi	Rampur Bhojla	29.518	29.567	+0.029	SWly	131	90.1	13 & 15 ..	75.6	13 & 15 ..	87.9	77.3	82.6
	Malda	Malda	29.527	29.550	—	Sly	53	89.6	10 & 14 ..	76.5	11 & 13 ..	87.1	77.7	82.4
	Dinajpur	Dinajpur	29.498	29.573	—0.005	Variable	54	89.6	14th ..	76.2	10 & 11 ..	85.4	77.4	81.4
NORTH BIHAR.	Rangpur	Rangpur	29.508	29.585	—0.011	SEly	41	88.8	15th ..	74.7	10 to 12 ..	83.7	76.3	80.0
	Jalpaiguri	Jalpaiguri	29.533	29.591	+0.025	Ely	53	88.4	14 & 15 ..	75.0	10th ..	85.0	75.0	80.5
	Kuch Bihar	Kuch Bihar	29.533	29.591	+0.025	Ely	53	88.4	14 & 15 ..	75.0	10th ..	85.0	75.0	80.5
	Darjeeling	Darjeeling	22.961	—	—0.039	Variable	129	66.1	15th ..	55.1	9th ..	63.9	50.5	60.2
	Sikkim	Gumtong	18.905	—	—	Variable	97	53.4	12th ..	36.4	9th ..	51.4	38.0	44.7
SOUTH BIHAR.	Chittagong	Chittagong	29.606	29.640	+0.027	SE	130	85.7	9 & 10 ..	75.1	9, 11, 12 ..	84.0	75.7	80.1
	Chittagong Hill Tracts	Demagiri	29.635	29.593	+0.037	Calm	96	88.8	11th July	76.8	13th ..	88.0	78.1	83.1
	Backergunge	Barisal	29.625	29.615	+0.019	SE	161*	85.0	11th ..	74.3	11th ..	84.3	79.9	80.6
	Noakhali	Noakhali	29.612	29.600	+0.031	S	130	88.5	10th ..	77.4	13th ..	87.1	79.2	83.1
	Faridpur	Faridpur	29.612	29.600	+0.031	S	130	88.5	10th ..	77.4	13th ..	87.1	79.2	83.1
CENTRAL BENGAL.	Dacca	Dacca	29.614	29.584	+0.069	SEly	213	89.6	11th ..	77.2	13 & 14 ..	88.9	79.1	84.0
	Tippera	Comilla	29.636	29.619	+0.024	E	180	87.4	9 & 15 ..	76.7	9, 11, 13 & 15th July	86.8	77.0	81.9
	Mymensingh	Mymensingh	29.588	29.598	+0.010	SEly	109	89.2	10th ..	75.0	13th ..	86.2	77.2	81.8
	Purnea	Purnea	29.479	29.568	+0.065	Calm	16	90.2	15th ..	75.2	9 & 13 ..	86.0	79.5	81.7
	Bhagalpur	Bhagalpur	29.436	29.543	+0.020	Calm & Ely	24	89.7	12th ..	76.0	9 & 12 ..	87.8	77.1	82.5
SOUTH BIHAR.	Darbhanga	Darbhanga	29.435	29.554	+0.008	ESE	73	88.9	15th ..	76.3	12th ..	80.8	78.1	82.4
	Muzaffarpur	Muzaffarpur	29.425	29.556	—	ESE	45	88.7	10th ..	76.2	9th ..	86.8	75.0	82.4
	Champaran	Motihari	29.364	29.545	+0.011	Ely	72	90.2	10th ..	74.0	11th ..	87.8	76.0	82.0
	Saran	Chapra	29.416	29.549	+0.039	Wly	79	91.3	10th ..	76.6	9th ..	87.8	78.4	83.1
	Shahabad	Dehri	29.238	29.539	+0.021	SWly	9	91.8	10th ..	77.0	9 & 15 ..	88.9	78.6	83.8
CENTRAL BIHAR.	Shahabad	Buxar	29.356	29.540	+0.023	Wly	90	90.5	10th ..	76.3	11 & 15 ..	88.0	77.6	83.8
	Gaya	Arrah	29.394	29.534	+0.030	Sly	44	92.4	10th ..	77.0	15th ..	89.8	78.0	84.4
	Gaya	Gaya	29.220	29.546	+0.021	E & W	140	94.5	10th ..	75.8	15th ..	90.0	77.4	84.0
	Patna	Bankipore	29.400	29.542	+0.007	W	81	90.0	12th ..	76.7	10th ..	88.1	78.3	83.2
	Monghyr	Monghyr	29.400	29.542	+0.007	W	81	90.0	12th ..	76.7	10th ..	88.1	78.3	83.2
CENTRAL BIHAR.	Sonthal Parganas	Naya Dumka	29.111	29.553	+0.021	SWly	54	90.0	12th ..	75.8	12th ..	87.5	77.0	82.3
	Hazaribagh	Hazaribagh	27.627	29.583	+0.083	NWly	174	86.2	15th ..	72.3	15th ..	85.0	72.8	78.0
	Lohardaga	Ranchi	27.604	29.548	+0.031	Wly	147	86.0	11th ..	69.9	14th ..	84.6	71.2	77.9
	Palamu	Palamu	27.604	29.548	+0.031	Wly	147	86.0	11th ..	69.9	14th ..	84.6	71.2	77.9
	Singbhum	Chaibassa	28.840	29.551	+0.042	SWly	9	91.4	11th ..	76.2	9, 12, 15 ..	90.3	76.9	83.7
CENTRAL BIHAR.	Manbhum	Manbhum	28.840	29.551	+0.042	SWly	9	91.4	11th ..	76.2	9, 12, 15 ..	90.3	76.9	83.7
	Sibsagar	Sibsagar	29.335	29.622	—0.002	SWly	90.0	10 & 13 ..	76.0	10th ..	88.0	77.1	82.6	
	Goulpara	Dhubri	29.622	29.591	+0.002	Variable	68	84.2	14 & 15 ..	74.8	10 to 12 ..	82.0	76.1	79.6
	Cachar	Silchar	29.679	29.634	+0.018	Calm	69.5	89.5	9 & 15 ..	76.2	9 & 15 ..	88.0	77.1	83.6









**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSER-  
VATIONS TAKEN IN ASSAM, FOR THE WEEK ENDING 8 A.M.,  
SATURDAY, THE 15TH OF JULY 1893.**

The chief feature of the weather during the past week has been the light rainfall in the south-western districts and even over the whole of Lower Bengal as compared with the heavier falls in the northern districts.

At the beginning of the week there was, relatively to the normal, a high pressure area over the north-west of the Bay and the adjoining districts, and this may have caused the partial stoppage of monsoon weather in Orissa and parts of Chota Nagpur and South-West Bengal. The effect on the pressure distribution was seen in the greater uniformity over the Bay and Lower Bengal, but in the north of the province gradients were somewhat steeper than usual. At the same time comparatively light winds were blowing, and rainfall was almost entirely confined to North Bengal and Bihar. On the second day of the week pressure began to fall briskly, westerly winds spread over Bihar, and very heavy rain fell in some of the northern districts, but especially in Rangpur, Jalpaiguri, and Kuch Bihar. There was still excess of nearly a tenth of an inch over the whole province, but as the brisk fall of pressure continued, a shallow depression formed along the foot of the hills, and the westerly circulation of winds with the heavier rain in the northern districts continued. During the early part of the week the comparatively clear skies in Orissa, Chota Nagpur, and Lower Bengal led to slightly excessive temperature in these districts, but in the north, where heavy rain was falling, there was still comparatively cool weather. By the middle of the week the pressure distribution was nearly normal, gradients were steeper over the Bay, and rainfall was becoming more general even in Orissa. On the 13th there was very little change except that local storms began in the southern districts owing to a shallow depression which formed over South Bengal and the north of the Bay. This intensified slightly during the last two days of the week, and led to an irregularly cyclonic circulation of winds. Rainfall during these days was less heavy in the northern districts of North Bengal, but it became general in South-West and East Bengal, and continued with little change in Bihar and Chota Nagpur.

*Pressure.*—Changes have never been large. From being above the normal by amounts between  $\cdot 1$  inch and  $\cdot 15$  inch, readings steadily fell till they were slightly below the normal in the middle of the week. There was then practically normal distribution for a day or two, after which there was a further slow fall which resulted in a shallow depression over Lower Bengal and the north of the Bay. The mean difference from the normal for the week varies from  $-.011$  inch in North Bengal to  $+.05$  inch in part of Orissa and South-West Bengal.

*Temperature.*—As rainfall partially ceased in the south of the province during the early part of the week, temperature rose slowly, and there was a slight excess in all districts, except Assam, North Bengal, and Bihar. During the last half of the week this area of slightly excessive temperature gradually contracted, and by the 15th there was defect everywhere, greatest in Bihar, where it averaged about  $3^{\circ}$ . The means are practically normal in Orissa, Chota Nagpur, and Lower Bengal; in Bihar there is defect of rather more than  $1^{\circ}$ , in North Bengal of  $2^{\circ}$ , and in Assam of nearly  $3^{\circ}$ .

*Rainfall* as stated above has been light and scattered in Orissa and parts of South-West Bengal and Chota Nagpur, moderately heavy in East Bengal, and much heavier than usual in North Bengal and Bihar. The heaviest falls occurred in Kuch Bihar and parts of the adjacent districts on the 10th, when several places reported amounts between 6 and 10 inches. The total fall for the week at Mathabhanga is 16.79, at Dinhatia 15.91, Bagdogra (Nilphamari) 14.32, and Kuch Bihar 13.68 inches. The irregularity in the distribution of the rainfall continues, and in all districts, except Orissa, occasional heavy showers have been recorded. In South-West Bengal falls for the week vary between 0.1 inch at Midnapore and 6.16 inches at Suri (Birbhum); in North Bengal between 0.71 inch at Bogra and 16.79 inches at Mathabhanga; in East Bengal between 0.9 inch at Goalundo and Bhola (Backergunge) and 9.64 inches at Cox's Bazar; in North Bihar between 2.5 inches at Hajipur and 10.41 inches at Kishanganj; in South Bihar between 0.95 inch at Jamtara (Sonthal Parganas) and 7.68 inches at Jahanabad; and in Chota Nagpur between 0.82 inch at Chaibassa and 6.91 inches at Ranchi. From these limits it will be seen that falls have been more uniform in North Bengal than in any of the other districts.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 15th of July 1893:—

METEOROLOGICAL DIVISIONS.		TEMPERATURE.							RAINFALL.									
		Highest observed during week.	Lowest observed during week.	Averages for week.				Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.		Since 15th May 1893.	
				Of highest of each day.	Of lowest of each day.	Of mean for each day.	Average.		Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.	
Orissa	...	92.7	70.1	89.1	78.5	83.8	+0.3	1.20	2.95	-1.75	2.27	3.43	-1.15	3.80	5.85	20.16	16.82	
South-West Bengal	...	93.7	70.6	89.6	78.9	84.3	+0.2	2.18	2.60	-0.42	2.95	3.54	-0.60	5.35	5.44	32.07	18.08	
North Bengal	...	90.2	74.7	86.3	77.1	81.7	-2.1	6.25	2.89	+3.36	4.97	3.10	+1.81	14.28	7.40	86.72	29.99	
East Bengal	...	89.6	74.3	86.6	77.6	82.1	-0.4	3.19	3.30	-0.11	4.14	3.00	+0.24	9.31	7.34	45.26	30.09	
North Bihar	...	91.3	74.9	87.3	77.3	82.3	-1.6	5.04	2.47	+2.57	6.72	2.30	+2.92	12.58	6.49	22.24	16.73	
South Bihar	...	94.5	75.8	88.8	78.0	83.4	-1.1	3.85	2.34	+1.51	4.86	3.23	+1.63	9.75	5.51	20.91	13.44	
Chota Nagpur	...	91.4	69.9	86.6	73.6	80.1	+0.2	3.39	2.82	+0.57	3.90	4.08	-0.18	6.43	5.95	25.43	15.48	
Assam	...	90.0	74.8	84.0	76.8	81.4	-2.7											

\* Daltonganj not included.

METEOROLOGICAL OFFICE, BENGAL,  
The 18th July 1893.

C. LITTLE,  
Offg. Meteorological Reporter to the Govt. of Bengal.

### Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 9th to 15th July 1893.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.					HYGROMETRY.				Rainfall, past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
July	9th	29.750	84.8	91.0	12.4	78.6	87.1	81.9	1.023	79.9	79	...
"	10th	29.692	84.4	90.0	11.2	78.8	87.1	81.0	.977	78.5	76	...
"	11th	29.652	84.9	90.0	10.2	79.8	88.4	83.5	1.083	81.7	80	...
"	12th	29.602	86.0	93.0	14.0	79.0	88.6	83.5	1.080	81.6	80	...
"	13th	29.583	83.9	91.0	12.2	77.8	85.6	81.5	1.022	79.9	84	0.36
"	14th	29.528	83.2	87.5	8.7	78.8	84.4	80.5	.989	78.9	84	1.10
"	15th	29.543	84.0	90.3	12.7	77.6	84.8	81.0	1.008	79.5	84	0.24

The mean 10 A.M. pressure of the seven days ... .. Inches.  
29.621

The mean temperature of the seven days ... .. 84.5

The extreme variation of temperature ... .. 15.4

The maximum temperature ... .. 93.0

The mean 10 A.M. relative humidity of the seven days ... .. %  
81

The total fall of rain from 9th to 15th July 1893. ... .. Inches.  
1.70

The daily mean temperatures are the crude means of maximum and minimum temperatures.

J. H. GILLILAND,  
For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA.  
The 17th July 1893.



Results of the Meteorological Observations taken at the Alipore Observatory from  
9th to 15th July 1893.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
July	9th	127.5	7.1	29.687	83.9	88.4	9.4	79.0	80.3	0.989	78.0	85	S by W, Sand SSW	80	Nil	Partially cloudy, o, d.
"	10th	142.0	0.4	.641	84.2	88.6	8.6	80.0	80.3	.982	78.7	84	SSW	133	"	Chiefly cloudy, o.
"	11th	147.0	2.6	.576	84.4	88.6	7.9	80.7	80.9	1.008	79.5	85	SSW	122	"	Chiefly cloudy, o.
"	12th	151.8	4.3	.562	84.6	89.7	9.5	80.2	81.2	1.015	79.7	84	SW and SSW	81	"	Chiefly cloudy, o, g.
"	13th	143.5	1.7	.535	83.0	88.5	10.3	78.2	79.3	0.981	78.6	87	Calm and variable	31	0.39	Chiefly cloudy, o, g, d, p, t.
"	14th	137.3	0.3	.502	81.6	84.6	6.2	78.4	79.5	.981	78.6	91	Calm and variable	11	0.82	Chiefly cloudy, o, g, p, t.
"	15th	150.2	5.1	.511	81.9	88.0	10.7	77.3	79.3	.968	78.2	89	Calm and variable	45	0.36	Partially cloudy, o, t, d, p.

The mean pressure of the seven days	...	...	...	Inches.	29.573
The average pressure of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	29.543
The total number of hours of bright sunshine	...	...	...	Hours.	21.5
The maximum possible number of hours of sunshine	...	...	...	...	93.7
The mean temperature of the seven days	...	...	...	...	83.4
The average temperature of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	83.8
The extreme variation of temperature	...	...	...	...	12.4
The maximum temperature	...	...	...	...	89.7
The highest velocity of the wind in one hour	...	...	...	Miles.	10
The highest pressure of wind on one square foot	...	...	...	lbs.	?
The mean relative humidity	...	...	...	%	86
The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	85
The total fall of rain from 9th to 15th July 1893	...	...	...	Inches.	1.57
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	2.69
The total fall from 1st January to 15th July 1893	...	...	...	...	53.70
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	27.51

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph, and from observations made at 6h, 10h, 16h and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o, overcast; g, gloomy; d, drizzling rain; p, passing temporary showers; t, thunder; d, dew.

IRRIGATION DEPARTMENT, BENGAL.

*Abstract statement showing Tollage on Canals in Bengal classed as Major Works for the month of May 1893, as compared with that of the corresponding month of the previous year.*

CANALS.	TOLLAGE, 1893-94.			TOLLAGE, 1892-93.		
	During the month.			During the month.		
	Rs.	A.	P.	Rs.	A.	P.
<i>Orissa Circle.</i>						
Taldanda Canal System	2,667	0	4	2,740	5	10
Kendrapara ditto	1,359	2	0	10,303	14	2
High Level, Range I	.....			1,374	8	3
Ditto, " II	.....			271	11	0
Ditto, " III	.....			149	12	6
Jajpur Canal	.....			23	13	10
Total Orissa Circle	4,026	2	4	14,864	1	7
<i>South-Western Circle.</i>						
Midnapore Canal	6,189	13	3	14,820	1	3
Hijili Tidal Canal	4,121	2	0	9,929	2	9
Total South-Western Circle	10,310	15	3	24,749	4	0
<i>Sone Circle.</i>						
Patna Canal System	150	0	0	3,531	11	3
Arrah ditto	2,528	3	0	5,610	14	0
Buxar ditto	610	10	6	1,822	8	3
Total Sone Circle	3,288	13	6	10,965	1	6
GRAND TOTAL	17,625	15	1	50,578	7	1

Government Transport Service.

CANAL.	TOLLAGE, 1893-94.						TOLLAGE, 1892-93.					
	During the month.			To end of the month.			During the month.			To end of the month.		
	Passengers.	Goods.	Total receipts.	Passengers.	Goods.	Total receipts.	Passengers.	Goods.	Total receipts.	Passengers.	Goods.	Total receipts.
<i>Orissa Circle.</i>	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.
High Level	2	...	66 10 9	1,405	1,540	1,723 9 0	...	...	1,225 0 0	497	655	1,768 5 0
Total Orissa Circle	2	...	66 10 9	1,405	1,540	1,723 9 0	...	...	1,225 0 0	497	655	1,768 5 0

Total Navigation Receipts.

CANALS.	EARNINGS, 1893-94.			EARNINGS, 1892-93.		
	During the month.			During the month.		
	Rs.	A.	P.	Rs.	A.	P.
Orissa Canals	4,092	13	1	16,587	10	7
Midnapore Canal	6,189	13	3	14,820	1	3
Hijili Tidal Canal	4,121	2	0	9,929	2	9
Sone Canals	3,288	13	6	10,965	1	6
Total	17,692	9	10	52,302	0	1

CALCUTTA,  
The 18th July 1893.

G. C. MACONCHY,  
Under-Secy. to the Govt. of Bengal.

## IRRIGATION DEPARTMENT, BENGAL.

*Abstract statement showing Tollage on Canals in Bengal classed as Minor Works and Navigation for the month of May 1893, as compared with that of the corresponding month of the previous year.*

CANALS.	TOLLAGE, 1893-94.			TOLLAGE, 1892-93.		
	During the month.		To end of the month.	During the month.		To end of the month.
	Rs.	A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Calcutta and Eastern Canals ...	17,762	1 9	38,285 5 9	16,963 7 0	35,068 11 9	11,428 12 9
Tolly's Nala ...	5,296	0 0	11,262 10 6	5,836 13 0	11,428 12 9	
Total ...	23,058	1 9	49,548 0 3	22,800 4 0	46,497 8 6	
Orissa Coast Canal ...	5,211	4 9	12,365 3 3	4,716 5 6	10,419 10 3	
Nadia Rivers ..	6,552	2 6	13,818 5 6	5,800 0 6	11,725 7 0	
GRAND TOTAL ..	34,821	9 0	75,731 9 0	33,316 10 0	68,642 9 9	

CALCUTTA,

The 18th July 1893

G. C. MACONCHY,

Under-Secy. to the Govt. of Bengal.

## CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 15th July 1893, as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 15TH JULY 1893.			WEEK ENDING SATURDAY, THE 16TH JULY 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ...	277	55,855	716	121	34,325	485
Jute ...	26	16,175	143	6	1,975	23
Firewood ...	148	1,06,875	1,635	85	53,000	827
Other articles ...	888	1,73,560	2,612	754	1,78,550	2,481
Total ...	1,339	3,52,465	5,106	966	2,67,850	3,816

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for the first 8 days of July 1893, on 1,610½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the period ...	357,334*	Rs. A. P. 4,13,146 7 0*	Mds. s. 24,08,940 20	Rs. A. P. 5,44,096 9 0	Rs. A. P. 19,856 2 0	Rs. A. P. 9,76,000 2 0	88,081	118,422½	206,503
Or per mile of railway ...	.....	256 8 6	.....	337 3 7	12 5 3	606 1 4	.....	.....	.....
For previous weeks of half-year ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total for 14 weeks ...	357,334	4,13,146 7 0	24,08,940 20	5,44,096 9 0	19,856 2 0	9,76,000 2 0	88,081	118,422½	206,503
COMPARISON.									
Total for corresponding 9 days of previous year ...	382,800½	3,24,552 13 8	20,57,740 30	6,49,170 5 2	20,959 13 0	9,94,682 15 10	93,379	133,632	227,071
Per mile of railway corresponding period of previous year ...	.....	201 8 4	.....	403 1 5	13 0 3	617 10 0	.....	.....	.....
Total for corresponding 14 weeks of previous year ...	382,800½	3,24,552 13 8	20,57,740 30	6,49,170 5 2	20,959 13 0	9,94,682 15 10	93,379	133,632	227,071

\* Increase is chiefly due to movements of pilgrims proceeding to Juggernaut.

## TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for the first 8 days of July 1893, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the period ...	19,362*	Rs. A. P. 4,715 15 0*	Mds. s. 4,105 30	Rs. A. P. 178 6 0	Rs. A. P. 16 0 0	Rs. A. P. 4,910 5 0	1,028	94	1,122
Or per mile of railway ...	.....	211 15 3	.....	8 0 3	0 11 6	220 11 0	.....	.....	.....
For previous weeks of half-year ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total for 14 weeks ...	19,362	4,715 15 0	4,105 30	178 6 0	16 0 0	4,910 5 0	1,028	94	1,122
COMPARISON.									
Total for corresponding 9 days of previous year ...	10,152	9,669 8 1	10,639 40	389 0 0	8 6 6	10,006 14 7	1,176	78	1,254
Per mile of railway corresponding period of previous year ...	.....	434 9 4	.....	17 7 9	0 6 1	452 7 2	.....	.....	.....
Total for corresponding 14 weeks of previous year ...	40,152	9,669 8 1	10,639 40	389 0 0	8 6 6	10,006 14 7	1,176	78	1,254

\* The decrease is due to figures for the corresponding period of 1892 having included traffic on account of "Coltarnath Jatra."

## DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for the first 8 days of July 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the period ...	23,095	Rs. A. P. 14,910 14 0	Mds. s. 43,705 20	Rs. A. P. 6,671 2 0	Rs. A. P. 49 0 0	Rs. A. P. 21,622 0 0	7,027½	3,202½	10,230
Or per mile of railway ...	.....	92 0 2	.....	41 5 4	0 3 11	133 15 5	.....	.....	.....
For previous weeks of half-year ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total for 14 weeks ...	23,095	14,910 14 0	43,705 20	6,671 2 0	49 0 0	21,622 0 0	7,027½	3,202½	10,230
COMPARISON.									
Total for corresponding 9 days of previous year ...	21,343½	13,919 7 2	52,459 10	7,841 14 0	57 0 0	21,818 5 11	8,601	3,460	11,461
Per mile of railway corresponding period of previous year ...	.....	86 3 10	.....	48 9 5	0 5 8	135 2 11	.....	.....	.....
Total for corresponding 14 weeks of previous year ...	21,343½	13,919 7 2	52,459 10	7,841 14 0	57 0 0	21,818 5 11	8,601	3,460	11,461

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K.-D., AND ASSAM-BIHAR SECTIONS.)

*Approximate Return of Traffic for the first 8 days of July 1893, on 777 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	MDS. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for first 8 days ...	230,790	89,050 0 0	7,24,660 0	96,650 0 0	12,280 0 0	1,09,430 0 0	31,075	27,603	58,678
Or per mile of railway ..	297	115 0 0	933 0	125 0 0	*2 0 0	*242 0 0	.....	.....	.....
For previous weeks of half-year ..	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total for 1 week ..	230,790	89,500 0 0	7,24,660 0	96,650 0 0	12,280 0 0	1,09,430 0 0	31,075	27,603	58,678
COMPARISON.									
Total for corresponding 9 days of previous year ..	238,827	90,991 0 0	5,12,576 0	88,034 0 0	14,225 0 0	1,03,259 0 0	35,345	31,866	70,011
Per mile of railway corresponding period of previous year ..	307	117 0 0	660 0	113 0 0	*2 0 0	232 0 0	.....	.....	.....
Total to corresponding date of previous year ..	238,827	90,991 0 0	5,12,576 0	88,034 0 0	14,225 0 0	1,03,259 0 0	35,345	31,866	70,011

\* Excluding steamer earnings.

## BENGAL CENTRAL RAILWAY.

*Approximate Return of Traffic for the first 8 days of July 1893, on 125 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	MDS. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for first 8 days ..	42,200	13,830 0 0	41,330 0	3,029 0 0	80 0 0	16,930 0 0	4,700	1,821	6,521
Or per mile of railway ..	338	111 0 0	551 0	24 0 0	.....	135 0 0	.....	.....	.....
For previous weeks of half-year ..	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total for 1 week ..	42,200	13,830 0 0	41,330 0	3,029 0 0	80 0 0	16,930 0 0	4,700	1,821	6,521
COMPARISON.									
Total for corresponding 9 days of previous year ..	48,703	13,837 0 0	41,145 0	2,847 0 0	61 0 0	16,745 0 0	5,206	2,031	7,237
Per mile of railway corresponding week of previous year ..	390	111 0 0	356 0	23 0 0	.....	134 0 0	.....	.....	.....
Total to corresponding date of previous year ..	48,703	13,837 0 0	41,145 0	2,847 0 0	61 0 0	16,745 0 0	5,206	2,031	7,237

## DACCA STATE RAILWAY.

*Approximate Return of Traffic for the first 8 days of July 1893, on 86 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	MDS. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for first 8 days ...	19,890	5,500 0 0	12,450 0	1,050 0 0	130 0 0	6,680 0 0	2,851	843	3,694
Or per mile of railway ..	231	64 0 0	145 0	12 0 0	1 0 0	77 0 0	.....	.....	.....
For previous weeks of half-year ..	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total for 1 week ..	19,890	5,500 0 0	12,450 0	1,050 0 0	130 0 0	6,680 0 0	2,851	843	3,694
COMPARISON.									
Total for corresponding 9 days of previous year ..	19,491	6,270 0 0	13,131 0	913 0 0	117 0 0	7,300 0 0	3,439	841	4,280
Per mile of railway corresponding week of previous year ..	227	73 0 0	153 0	11 0 0	1 0 0	83 0 0	.....	.....	.....
Total to corresponding date of previous year ..	19,491	6,270 0 0	13,131 0	913 0 0	117 0 0	7,300 0 0	3,439	841	4,280

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# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, JULY 26, 1893.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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### RANCHI ZENANA HOSPITAL.

No. 2420Med., dated Calcutta, the 24th July 1893.

From—J. A. BOURDILLON, Esq., Offg. Secy. to the Govt. of Bengal, Municipal Dept.,  
To—The Commissioner of the Chota Nagpur Division.

I AM directed to acknowledge the receipt of your letter No. 60Mis., dated the 8th July 1893, with which you forward a copy of a letter No. A., dated the 23rd June 1893, from the Honorary Secretary to the Dufferin Fund Committee, Ranchi Branch, reporting that Kumar Jagat Mohun Nath Sahi Doo, brother of the Maharaja of Chota Nagpur, has made a donation of Rs. 1,750 to the Fund on the occasion of the late visit of His Honour the Lieutenant-Governor to Ranchi. The amount is intended to defray part of the cost of building a zenana hospital to be attached to the charitable dispensary at that station.

2. In reply, I am directed to say that the Lieutenant-Governor accepts the donation, and to request that you will be so good as to convey to the donor an expression of His Honour's thanks for his liberality and public spirit. This letter will be published in the *Calcutta Gazette*.

The following report is published for general information.

J. A. BOURDILLON,

*Offg. Secy. to the Govt. of Bengal.*

**REPORT ON THE WORKING OF THE JUTE SCREW AND  
WAREHOUSES IN CALCUTTA FOR THE YEAR 1892-93.**

No. 16A.J., dated Calcutta, the 13th July 1893.

From—J. G. RITCHIE, Esq., Offg. Chairman of the Corporation of Calcutta,  
To—The Secretary to the Government of Bengal, Municipal Department.

I HAVE the honour to submit the following report, under section 30 of Act IV (B.C.) of 1883, on the jute and screw warehouses in Calcutta for the year ending 31st March 1893.

2. At the close of the last year there were 105 sanctioned warehouses on the register, and 8 new warehouses were established during the year. These make up a total of 113. Of these, the license of No 3, Circular Tallygunge Road, was cancelled during the year for default of payment of license fee. A complete list of the remaining 112, arranged according to the Acts under which they were originally licensed, is appended to this report.

3. Twelve applications were received during the year under report as will be seen in the statement below :—

No.	Locality.	Nature of application.	REMARKS.
1	135, Baliaghata Road ...	For construction of additional godowns.	Papers sent to Engineer for action.
2	13, Hurro Chunder Mullick's Street	For storing jute in the godowns.	Sanctioned.
3	59 and 60, Durmahatta Street ...	Ditto ...	Sanction refused, there being insufficient cart passage.
4	140-1 to 140-6, ditto ...	Ditto ...	Plans returned for correction.
5	6, Chitpur Bridge Approach	Ditto ...	Sanctioned.
6	23, Hurro Chunder Mullick's Street	For addition and alteration to his license godown.	Papers sent to the Road Department for action.
7	29-1, Canal West Road ...	For storing jute ...	Sanctioned.
8	12, Gaildfe Street ...	Ditto ...	Do.
9	2, Noyan Soor's Lane ...	For construction of a new godown.	Do.
10	15, Kassi Mitter's Ghât Street ...	For assorting jute ...	Provisionally sanctioned.
11	136, Durmahatta Street ...	For construction of a new godown.	Sanctioned.
12	55, Goureebaree Lane ...	Ditto ...	Plans returned for correction.

The construction of the godowns at Nos. 2, Noyan Soor's Lane, 15, Kassi Mitter's Ghât Street, and 136, Durmahatta Street, not being thoroughly completed, no license was granted to the owners during the year under report.

4. During the year applications for Nos. 17 and 18, Hurro Chunder Mullick's Street, and 7 and 7-1, Hurro Chunder Mullick's Street, which had been under consideration last year, were sanctioned, and license granted to the respective owners on their depositing the usual license fee.

5. License was also granted to owners of warehouses at No. 7, Dhunnia Bagan Road, and 140-7 to 140-14, Durmahatta Street. These had been sanctioned last year.

6. There were 17 prosecutions instituted during the year against persons infringing the Jute Act, of which 1 case was withdrawn, in 2 cases fresh summonses were ordered to be applied for, and in the remaining 14 cases, including the 2 before mentioned, fresh summons cases, the parties were convicted and fined. The following is a detail of fines inflicted on the offenders :—



			Rs.	A.	Rs.	A.
One case fine inflicted ...	...	...	.....		30	0
Seven cases do. at 10 each ...	...	...	10	0		
With cost in one case ...	...	...	0	8		
					70	8
One case fine inflicted at 5 ...	...	...	5	0		
With cost ...	...	...	0	8		
					5	8
One case fine inflicted at 2 ...	...	...	2	0		
With cost ...	...	...	0	8		
					2	8
One case fine inflicted at 15 ...	...	...	15	0		
With cost ...	...	...	0	8		
					15	8
Three cases fine inflicted at 15 each ..	...	...	45	0		
With cost 8 annas ...	...	...	1	8		
					46	8
Total ...	...	.....			170	8

7. The total amount realised during the year ending 31st March 1893 is shown in the following statement :—

			Rs.	A.	P.
License fees ...	...	...	28,358	4	9
Mutation fee and miscellaneous ...	...	...	10	0	0
Fines and cost of summons ...	...	...	110	8	0
Total ...	...	...	28,478	12	9

8. During the year there was one case of a small fire in a licensed godown at No. 172, Aheerestollah Street. No part of the building caught fire, and only several bales of jute were burnt down. The damage is estimated at about Rs. 300.

9. The annexed statement shows the receipts and disbursements of the Jute Warehouse Fund during 1892-93.

*Abstract Account of Receipts and Disbursements of the Jute Warehouse Fund for the year*  
**Dr. 1892-93. Cr.**

RECEIPTS.	Amount.	Total.	DISBURSEMENTS.	Amount.	Total.
	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
To license-fee for Jute Warehouses.	28,358 4 9		By 80 per cent. of the receipts paid to the Commissioner of Police.	22,916 10 4	
Fines under the Act ...	120 8 0		„ 20 per cent. transferred to Inspection Fund.	5,695 12 2	
Miscellaneous receipts ...		28,478 12 9			28,942 6 6
To balance at the commencement of the year—			„ balance at the close of the year—		
In the Bank of Bengal ...	.....	672 0 1	In the Bank of Bengal ...	.....	208 6 4
Total ...	.....	29,150 12 10	Total ...	.....	29,150 12 10
To 20 per cent. of the receipts from Jute Warehouse license-fee.	.....	5,695 12 2	By Jute Warehouse Inspection Establishment.	3,330 15 0	
To balance at the commencement of the year—			Miscellaneous contingencies ...	59 3 9	
In the Bank of Bengal ...	5,068 11 3				3,396 2 9
Less as shown above ...	672 0 1		Contribution to General Fund ...	.....	2,399 9 5
	4,396 11 2		Balance at the close of the year—		
Less due to General Fund ...	4,372 4 2		In the Bank of Bengal ...	6,781 3 3	
„ to Collector, Income-tax	24 7 0		Less as shown above ...	208 6 4	
	4,396 11 2				6,572 12 11
Total ...	.....	5,695 12 2	Less due to General Fund ...	6,501 5 7	
			„ to Collector, Income-tax	11 7 4	
					6,572 12 11
			Total ...	.....	5,695 12 2

## Complete list of the Jute Warehouses licensed in Calcutta for the year 1892-93.

No.	Name of street and number of premises.	Name of license-holder.	Annual assessment.	Annual license-fee.
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## LICENSED UNDER SECTIONS 4—6, ACT II (B.O.) OF 1872.

			Ra.	Ra.
1	Aheereetollah Street ...	Korum Chand ...	1,200	200
2	169, ditto ...	Kissen Chand Bhoom Sing ...	3,000	300
3	170, ditto ...	Ditto ...	1,368	200
4	172, ditto ...	Sristydhur Dey ...	1,200	200
5	87 to 87-53, Durmahatta Street	Ram Narain, Agent	9,000	900
6	195, ditto ...	Sreedhur Mondol ...	480	50
7	138-39, ditto ...	Ditto ...	360	50
8	7, Doorga Churn Mookerjee's Street.	Peary Mohun Biswas	360	50
9	4, Hurro Chunder Mullick's St.	Prolhad Chundra Shaw	800	100
10	6, ditto ...	Mokoondo Soondery Dassee	912	100
11	14, ditto ...	Gobin Chand Dutt	1,860	200
12	23, ditto ...	Radha Romon Shaw	900	100
13	27, ditto ...	Chunder Seekur, Radhica Lall Shaw.	600	100
14	28, ditto ...	Benode Behary Khan	720	100
15	28 Jorabagan Street	Rameshur Aitch	984	100
16	31 to 31-4, Manick Bose's Ghat Street.	Sreemotee Nobinkissoree Dassee	900	100
17	8, Noyan Soor's Ghat Lane	Gooroogobind Shaw & others	1,300	200
18	57, Strand Road	Judoonath Shaw Chowdhury	1,740	200
19	6, Sobha Bazar Street	Bamacharan Ghose	960	100
20	7, ditto ...	Chunder Seekur Sreekanto Shaw Pramanic.	960	100
21	12, ditto ...	Sarodaprasad Soor	600	100
22	71-1, ditto ...	Deno Nath Shaw	720	100
23	73, ditto ...	Dhuniram, Kassinath Shaw	2,580	300
24	91-92, ditto ...	Sreedhur Mondol	1,800	200
25	98-2, ditto ...	Juggobundhoo, Sarat Chunder Shaw.	3,000	300

## LICENSED UNDER SECTION 7, ACT II (B.C.) OF 1872.

26	20, Bonomally Sircar's Street ...	Gooro Churn Paul & others	420	50
27	206, Chitpore Road	Kanie Lall Khan	1,350	200
28	247-48, ditto ...	Messrs. Finlay, Muir & Co.	21,000	2,000
29	16, Hurro Chunder Mollick's L.	Moharaj Anundo Mohun Shaw	900	100
30	26-27, Jorabagan Street	Peary Mohun Dutt	1,476	200
31	26-27, H-I-A, Strand Road	Secretary, I. G. S. N. Co., "Ld."	3,078	400
32	3 to 3-3, Sobha Bazar Street	Lolit Mohun Shaw & others	7,920	800
33	10, ditto ...	Jullodhur Shaw & others	1,344	200
34	95-96, ditto ...	Juggat Mohun Shaw	2,400	300
35	98, ditto ...	Sitanath Shaw Chowdhury	3,000	360

## LICENSED UNDER ACT II OF 1872 AS AMENDED BY ACT II OF 1875.

36	144, Durmahatta Street	Secretary to the Port Commrs...	4,800	500
37	45, Durgachurn Mookerji's Street, & 202-1, Chitpore Road.	Umbica Churn Mitter	1,800	200
38	24, Hurro Chunder Mullick's L.	Khetter Mohun Biswas	300	50
39	36, Manick Bose's Ghat Street...	Sreemuty Kaminee Dassee	1,536	200
40	7, Noyan Soor's Ghat Lane	Shumbhoonath and Gobindnath Chowdhury.	1,000	100
41	67-2 and 67-31-II-1, Strand Rd.	Messrs. Stanley & Co.	31,916	2,000
42	67-27-H-I-B, ditto	Secretary, I. G. S. N. Co., "Ld."	3,078	400
43	100, Sobha Bazar Street	Sreedhur, Sham Dass Mondol	1,500	200

No.	Name of street and number of premises.	Name of license-holder.	Annual assessment.	Annual license fee.
-----	--	-------------------------	--------------------	---------------------

## LICENSED UNDER SECTION 6, ACT V (B.C.) OF 1879.

			Rs.	Rs.
44	76-2, 80 & 80-1, Durmahatta St.	Behary Lall Pyne...	3,300	400
45	143 and 143-1, ditto ...	Goorogobind Shaw ...	9,000	900
46	202, ditto ...	Gobind Chandra Dutt and another	4,000	400
47	5, Doorga Churn Mookerjee's St.	Jugul Kissors Agurwalla ...	1,380	200
48	6, ditto ...	Dyal Chand Shaw ...	808	100
49	5, Hurro Chunder Mullick's St.	Juggobundhoo, Soshee Mohun Shaw Pramanick ...	1,440	200
50	16, ditto ...	Gooroo Churn Shaw ...	960	100
51	9, Noyan Soor's Ghat Lane ...	Nobin Chunder Coondoo ...	1,200	200
52	46, Manick Bose's Ghat Street	Nittanund Shaw ...	1,632	200
53	1, Noyan Soor's Ghat Lane ...	S. M. Sabestry Soondary Dassce	840	100
54	62, Nimtollah Ghat Street ...	Managing Agent, India Pressing Company, "Ld."	12,000	1,200
55	5, Sobha Bazar Street ...	Bisumbhur Mullick ...	2,500	300
56	90, ditto ...	Debnath Shaw and others ...	2,400	300

## LICENSED UNDER SECTION 6, ACT IV (B.C.) OF 1883.

57	13-6, Hurro Ch. Mullick's St. ...	Bissonath, Luchmeenath Pramanick.	960	100
58	82, Nimtollah Ghat Street ...	Joodoonath Shaw Chowdhury ...	2,400	300
59	67-9, Strand Road ...	Messrs. Macneill & Co. ...	6,600	700
60	5, Aheerettollah Street ...	Thansing, Korum Chand ...	1,800	200
61	98-1, Sobha Bazar Street ...	Juggobundhoo, Sarat Chunder Shaw Chowdhury.	900	100
62	11, Hurro Ch. Mullick's Street	Dwarka Nath Shaw ...	900	100
63	44, Manick Bose's Ghat Street	Debendro Deb Dass ...	1,680	200
64	135, Durmahatta Street ...	Bhim Churn, Soroop Ch. Roy ...	3,600	400
65	58, Nimtollah Ghat Street ...	Managing Agent, India Pressing Company, "Ld."	4,860	500
66	178 to 178-4, Upper Chitpore Road, and 2 to 2-2, Ramkanto Bose's Street.	Messrs. Finlay, Muir & Co. ...	3,240	400
67	67-9-H-1, Strand Road ...	Managing Agents, I. G. S. N. Co., "Ld."	4,452	500
68	42-43, Doorga C. Mookerjee's St.	Dinobundhoo, Pranbundhoo Shah	4,320	500
69	78-79, Sobha Bazar Street ...	Mothoorakant Shaw Chowdhury	2,520	300
70	135, Ballighatta Road ...	Messrs. George Henderson & Co.	1,200	120
71	1, Budree Dass Temple Street ...	Gopeemohun Roy ...	960	96
72	2, ditto ditto ...	Fokeer Chand Sickdar ...	540	54
73	19, ditto ditto ...	Hurriah Chunder Dutt ...	300	50
74	25, ditto ditto ...	Tran Nath Banerjee ...	480	50
75	24-A, Canal West Road ...	Lolitmohun, Brindahan Shaw ...	720	72
76	25, ditto ...	Do. do. ...	540	54
77	29, ditto ...	Gopeemohun Roy ...	1,310	131
78	31, ditto ...	Mohima Chunder Coondoo ...	840	84
79	32, ditto ...	Do. do. ...	720	72
80	35-4-1, ditto ...	Taraprosunno Roy ...	980	98
81	35-5, ditto ...	Deepchand and Hurro Chunder Coondoo.	1,200	120
82	37-1, ditto ...	Hurriah Chunder Dutt ...	480	50
83	39-2, ditto ...	Do. do. ...	1,200	120
84	39-3, ditto ...	Kally Sunker & Tarucknath Coondoo.	600	60
85	39-1, ditto ...	Soorji Coomar & Gooroochurn Shaw.	720	72
86	1, Chitpore Bridge Road ...	George Henderson and Co. ...	1,400	140
87	308, Upper Circular Road ...	Manager, E. B. S. Railway ...	6,000	600
88	1, Gailiffe Street ...	George Henderson and Co. ...	9,600	960
89	1-1, ditto ...	Ditto ditto ...	1,800	180
90	9, Garden Reach Road ...	Gillanders, Arbuthnot & Co. ...	2,880	288
91	6, Gooripara Road ...	Messrs. Bird & Co. ...	2,000	200
92	6, Budreedass Temple Street ...	Sonaton Dey ...	480	50

No.	Name of street and number of premises.	Name of license-holder.	Annual assessment.	Annual license fee.
			Rs.	Rs.
93	56-57, Gouribari Lane ...	Ramkristo Pattuck & Parbotty Churn Roy.	573	57-4-9
94	4, Budreedass Temple Street ...	Aukhoy Ooomar Mozoomdar ...	1,020	102
95	58, Gouribari Lane ...	Hurish Chunder Dutt ...	720	72
96	93-94, Sobha Bazar Street ...	Laul Behary Sadkhan ...	720	100
97	67-5, Strand Road ...	I. G. S. N. Company, "Limited"	5,400	600
98	19, Hurro Ch. Mullick's Street	Nilmadhub Shaw and others ...	2,160	300
99	97, Sobha Bazar Street ...	Sitanath Shaw Chowdhry ...	420	50
100	24, Budreedas Temple Street ...	Gooro Churn Shaw ...	600	60
101	72, Sobha Bazar Street ...	Judoonath Pramanick ...	1,800	200
102	17-1 & 18, Manick Bose's Ghat Street.	Monmathanath Dutt ...	600	100
103	12, Hurro Chunder Mullick's St.	Brojolall Roy and another ...	3,480	400
104	77, Durmahatta Street	Behary Lall Pyne ...	1,080	200
105	140-7 to 140-14, Durmahatta St.	S. M. Monmohiney Dassee ...	1,140	200
106	7 & 7-1, Hurro Chunder Mullick's Street.	Jogendra Nath Chuckerbutty ...	648	100
107	7, Dhunia Bagan Lane ...	Raye Churn Shaw ...	450	50
108	29-1, Canal West Road ...	Goopee Mohan Roy ...	960	96
109	13, Hurro Chunder Mullick's St.	Angore Nath Mozoomdar ...	1,171	200
110	6, Chitpore Bridge approach ...	Abhoy Churn Ghattock ...	180	50
111	12, Gailiffe Street ...	Nilmadhub Sickdar and Jadub Chunder Sickdar.	480	50
112	17 and 18, Hurro Chunder Mullick's Street.	Radharamon Shaw ...	972	100

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 22nd July 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL.</b>			
BURDWAN DIV.	1 Burdwan July 22, '93	2.83	Weather—seasonable. <i>Aus</i> and <i>aman</i> being transplanted. Jute doing well.
	Kalna ...	8.97	Water and fodder sufficient. Prices of common rice:—
	Katwa ...	8.56	Srs.
	Raniganj ...	2.15	Burdwan ... 10 to 12 } Kalna ... 9½ to 13 } per rupee. Katwa ... 12 } Raniganj ... 12 }
	2 Bankura „ 22, '93	2.08	Weather—seasonable. Transplantation of <i>aman</i> continues. Prospects fair. Price of common rice has slightly fallen. It is now 11 seers and 14 chitaks per rupee at the Bankura market and 11½ seers at Vishnupur.
	3 Birbhum „ 22, '93	5.04	Shows throughout the week. Weather very favourable for agriculture.
	Rampur Hât ...	5.29	Transplanting of paddy seedlings still going on briskly. Price of common rice 10 to 15 seers per rupee.
	4 Midnapore „ 22, '93	1.96	Weather—hot with occasional showers of rain. Transplanting going on. Prospects of sugarcane, mulberry and indigo at Ghatal not good. Prices of common rice:—
			Srs. Sadar ... 11 } Contai ... 12 } per rupee. Tamluk ... 11 } Ghatal ... 11 }
	5 Hooghly „ 22, '93	3.16	Weather—showery: seasonable. Any serious damage to crops is limited to a few low-lying villages, and as the rainfall is now moderate, it is hoped that even in those the water may drain off in time for the <i>aman</i> to be planted. Otherwise all prospects are good. Prices of common rice:—
	Serampore ...	4.36	Srs. Sadar ... 10 to 11 } Serampore ... 10 to 11½ } per rupee. Jahanabad ... 10 to 11 }
	Jahanabad ...	2.19	
PRESIDENCY DIV.	6 Howrah „ 22, '93	2.48	Ordinary monsoon weather. A good deal of land in the Ulubaria subdivision is still under water, and the prospects of the crops there are not favourable. It is hoped that the north of the district will be drained in time to allow of fresh transplanting. Condition of cattle good. Fodder and water-supply sufficient. Price of rice 10 to 11 seers per rupee.
	Ulubaria ...	3.11	
	7 24 Parganas „ 22, '93	3.29	Weather—cloudy and warm with constant showers. Transplantation of <i>aman</i> going on except in thana Bankipur in the Diamond Harbour subdivision, where the accumulated rain-water has not yet subsided. Prospects not very favourable at present. There is no present lack of fodder and water. No cattle-diseases reported. Prices of common rice:—
			Srs. Sadar ... 10 to 10½ } Barasat ... 9 } per rupee. Basirhat ... 10 } Diamond Harbour ... 10½ }
	8 Nadia „ 22, '93	3.80	Weather—wet and fairly cool. Prospects of paddy crops very fair. Paddy on high lands is doing very well. Prices stationary.
	Kushtia ...	2.43	
	Meherpur ...	3.72	
	Chuadanga ...	2.20	
	Ranaghat ...	4.79	
	9 Khulna „ 22, '93	2.22	Weather—showery with breaks of bright sun. There was heavy rain in the Satkhira subdivision and fields have again been flooded. In Bagerhat jute has been damaged by excessive rain, and transplanting of winter paddy is being retarded on account of constant rain. On the whole prospects are not good. Coarse rice sells at 9 or 10 seers per rupee.
	Bagerhat ...	3.66	
	Satkhira ...	7.25	
	10 Jessore „ 22, '93	1.10	Weather—cloudy with occasional light showers. Rivers rising slowly. Prospects of paddy on high lands good. <i>Aman</i> and jute grown on low lands have suffered. Harvesting of jute and manufacture of indigo going on. Cattle-disease reported from Salkya, Manirampur, and Keshabpur. Prices stationary.
	Jhenida ...	1.45	
	Magura ...	1.10	
	Narail ...	2.92	
	Bangson ...	2.25	
	11 Murshidabad „ 22, '93	2.69	Weather—hot and cloudy with occasional rain. Harvesting of <i>bhadoi</i> has commenced. The recent rain is said to have done some injury to the paddy crops, mulberry and sugarcane. Fodder available for cattle. Coarse rice sells at 11 seers per rupee.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL—concd.</b>			
<b>CHITTAGONG DIVN.</b>	12 Chittagong July 22, '93	2.67	Weather—fitful. Transplanting of <i>aus</i> is nearly over. Prospects fair. Prices rising. Condition of cattle generally good. Supply of fodder sufficient.
	13 Noakhali „ 22, '93	5.36	Weather—cloudy with occasional rain. Harvesting of <i>aus</i> paddy commenced. <i>Aman</i> is being transplanted. State of crop not favourable. Scarcity of fodder is felt and mortality among cattle reported from several stations. Water available. Common rice selling at 10½ seers per rupee.
	14 Tippera „ 22, '93	2.09	Weather—seasonable. Prospects improved owing to fall in floods. <i>Aus</i> much damaged. A total loss expected in some places. <i>Aman</i> thriving.
	15 Chittagong Hill Tracts. „ 21, '93	1.90	Weather—cloudy with occasional showers and sunshine. <i>Jum</i> paddy progressing. Prospects not good. Ploughing in low lands continues. Common (very coarse) rice being sold at 8 seers per rupee. No cattle-disease reported.
	16 Dacca „ 22, '93	1.67	Weather—cloudy and rainy. Prospects of standing crops good. Harvesting of <i>aus</i> and jute going on. Rivers rising rapidly. Common rice selling at from 9 to 12 seers per rupee. Fodder available. No cattle-disease.
<b>DACCA DIVN.</b>	17 Faridpur „ 22, '93	0.79	Weather—seasonable. <i>Aus</i> has failed in most parts of the district, and there is very little <i>aman</i> on the low lands, but it is doing well on high lands. Jute has been damaged also and is reported to be stunted. Common rice sells at 10 to 11 seers per rupee. Condition of cattle reported good generally, but there is cattle-disease in thana Palong. At this season of the year cattle must be short of fodder in many places.
	Goalundo ...	1.69	
	Madaripur ...	2.08	
	18 Backergunge „ 22, '93	3.24	Weather—seasonable. Prospects of crops fair, but <i>aus</i> has been damaged in some places by the flood. <i>Aman</i> has been sown or transplanted to the extent of 8 annas on the average. Common rice is being sold from 9 to 12 seers per rupee. Fodder and water sufficient.
	Pirojpur ...	3.07	
	Patuakhali ...	6.80	
<b>RAJSHAHI DIVN.</b>	Bhola ...	5.80	Weather—rainy and cloudy. About 4 annas of jute has been cut. Excessive rain may damage the crop on low lands to some extent. Outturn of <i>aus</i> paddy is about 10 annas. Common rice sells at 11 seers per rupee. Fodder and water sufficient. Condition of cattle good.
	19 Mymensingh „ 22, '93	1.47	
	20 Dinajpur „ 22, '93	1.02	
	Thakurgaon ...	2.21	Weather—hot, cloudy and rainy at times. Prospects of standing crops very good. Transplantation of winter rice is being vigorously pushed on. Condition of cattle good. Fodder and drinking water sufficient. Prices of rice:—
			Srs. Sadar ... 144 } per rupee. Thakurgaon ... 10 to 12 }
	21 Rajshahi „ 22, '93	Figures not given.	Weather—seasonable. The week has not been so wet as last week; and the crops have so far improved, but still absolutely dry weather for many days is required. <i>Aman</i> transplanting is drawing to a close. No cattle-disease reported. Fodder and water-supply ample. Price of rice varies from 10 to 12 seers per rupee.
	Nator ...	4.90	Weather—sultry with occasional showers. <i>Aus</i> and jute being cut. <i>Aman</i> being transplanted. Prospects favourable.
	Naugaon ...	5.35	
	22 Rangpur „ 22, '93	1.46	
	Gaibanda ...	2.02	Weather—unsettled and showery. Transplantation of <i>aman</i> going on. Prospects of standing crops unaltered. Common rice sells at 12 seers per rupee. Fodder and water sufficient.
	Nilphamari ...	1.64	
	Kurigaon ...	0.07	
<b>RAJSHAHI DIVN.</b>	23 Bogra „ 22, '93	2.00	Weather—cloudy and showery. Rivers falling. <i>Aus</i> and jute are being cut. Common rice sells at 11½ seers per rupee at Patna and Rs. 3-12 to Rs. 4 per maund at Sirajganj. Fodder and water-supply sufficient.
	Sherpur ...	2.05	
	Naukhila ...	1.96	
	24 Pabna „ 22, '93	2.35	There has been a break in the rainfall. In the hills:— <i>Bhutia</i> , <i>Kangni</i> , <i>shama</i> , potatoes and <i>phaphur</i> being still harvested. <i>Bhadai</i> and <i>chota marua</i> progressing favourably. <i>Bara marua</i> and <i>aghani</i> paddy being transplanted. In the Terai:—Transplanting of <i>haimanti</i> paddy continues. Prospects of <i>bhadai</i> and jute good. Prices of coarse rice:—
	25 Darjeeling „ 22, '93	3.44	
	Siliguri ...	3.48	
<b>RAJSHAHI DIVN.</b>			Srs. Hills ... 9 } per rupee. Terai ... 11 }
	26 Jalpaiguri „ 22, '93	6.67	Weather—hot and cloudy. Steeping of jute and harvesting of <i>bhadai</i> commenced. Prospect of the latter crop good. Transplantation of <i>haimanti</i> in progress. Price of rice stationary. Fodder and water sufficient. No cattle-disease.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR.</b>			
BHAGALPUR DIVS.	27 Monghyr July 22, '93	1.63	Weather—cloudy with successive showers of rain. Prospects of <i>bhadoi</i> crops on high lands very good. Paddy transplantation commenced. Condition of cattle generally good. Plenty of fodder. Prices of common rice:— Srs. Sadar ... .. 11½ to 15 } per rupee. Begusarai ... .. 14 Jamui ... .. 13
	Begusarai ...	3.84	
	Jamui ...	5.76	
	28 Bhagalpur .. 22, '93	1.65	Weather—rainy. The heavy rain has done a great deal of damage to <i>makai</i> and <i>marua</i> ; otherwise prospects are good and the usual agricultural operations are going on. Common rice 13 seers 14 chitaks per rupee.
	Banksa ...	1.98	
	Madhipura ...	1.89	
	Supaul ...	2.56	
	29 Purnea .. 22, '93	2.13	Weather—cloudy and muggy without much rain. The break in the rains has done much good to <i>bhadoi</i> and <i>aghani</i> , the prospects of which are now good except in flooded localities. Prices stationary.
	Kishanganj ...	1.34	
	Araria ...	0.42	
	30 Malda .. 22, '93	3.90	Cloudy and rainy weather continues. <i>Bhadoi</i> paddy on high lands doing well, but the lowland crop has been slightly damaged by flood in thanas Nowabganj, Shibganj, Kaliachak, and Khorba. Winter rice is being transplanted. Price of coarse rice 11 to 15 seers per rupee. Fodder sufficient for cattle.
	31 Sonthal Parganas .. 22, '93	1.85	Weather—cloudy and seasonably rainy. Prospects of <i>bhadoi</i> crops poor on account of heavy rain and want of sunshine. Transplantation of paddy in full progress. Water and fodder plenty.
	Deoghur ...	5.22	
	Godda ...	1.24	
	Jamtara ...	2.21	
	Pakur ...	4.86	
	Rajmahal ...	2.92	
PATNA DIVISION.	32 Patna .. 22, '93	3.00	Weather—cloudy. Standing crops are being damaged by the heavy rain. Transplantation of rice is being delayed for the same reason. Prospect of maize not very favourable. Prices of common rice:— Srs. Sadar ... .. 15 Bihar ... .. 16½ } per rupee. Dinapore ... .. 13 Barh ... .. 13
	Bihar ...	3.02	
	Dinapore ...	7.33	
	Barh ...	1.32	
	33 Gaya .. 22, '93	6.20	Weather—very rainy. The heavy rain has damaged the <i>bhadoi</i> crops considerably in many parts of the district. Paddy being transplanted. Fodder and water-supply ample. Prices stationary.
	Jehanabad ...	8.76	
	Aurangabad ...	3.27	
	Nawada ...	3.02	
	34 Shahabad .. 22, '93	7.08	Weather—cloudy skies with strong north-westerly winds and heavy rain. The rainfall has been excessive and has damaged the <i>bhadoi</i> crops. <i>Aghani</i> is germinating, and in some localities transplanting has begun. All other crops promise well, and fodder is abundant.
	Buxar ...	3.71	
	Bhabhua ...	5.43	
	Sasaram ...	1.92	
	35 Darbhanga .. 22, '93	3.21	Weather—cloudy and rainy at the close of the week. <i>Bhadoi</i> prospects very favourable. Transplanting of <i>marua</i> and paddy in progress. Flood is subsiding. Some damage is reported to have been done to paddy and <i>makai</i> in tracts lying on river banks. Cattle in good condition. Prices stationary.
	Samestipur ...	3.15	
	Madhubani ...	1.65	
	36 Muzaffarpur .. 22, '93	3.14	Weather—hot but occasionally cloudy. <i>Bhadoi</i> crops, especially <i>makai</i> , affected to some extent by continued rain. A few days' sunshine urgently needed. Transplantation of paddy still going on. Prospects favourable. Indigo <i>makai</i> going on. <i>Dukha</i> disease among cattle still prevailing in Janarh in Kutrui thana, but no deaths reported. Water and fodder sufficient.
	Hajipur ...	2.47	
	Sitamarhi ...	1.81	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR—conold.</b>			
PATNA DIVISION—conold.	37 Saran * July, 22, '93	2.54	Weather—showery almost the whole week. All standing crops doing well. Weeding of <i>makai</i> impeded by constant showers. A break in the rains would be beneficial for this crop and indigo. Transplantation of paddy going on. Water and fodder abundant. Prices of common rice :— Srs. Chupra ... .. 13 Siwan ... .. 12½ Gopalganj ... .. 13 } per rupee.
	Siwan ...	2.32	
	Gopalganj ...	4.57	
88	Champaran „ 22, '93	5.57	Weather—cloudy with occasional sunshine. Sowing of paddy nearly finished and transplantation yet going on. Outbreak of indigo has been reduced by the heavy rain, and consequent flooding of indigo lands. Prices nearly stationary. Fodder and water sufficient.
<b>ORISSA.</b>			
ORISSA DIV.	39 Cutlack „ 22, '93	0.99	Weather—cloudy with occasional showers. Sowing and transplantation of <i>sarad</i> in progress. <i>Beali</i> doing well. Fodder-supply sufficient. Price of rice stationary.
	40 Puri „ 20, '93	0.45	Weather—cloudy. <i>Sarad</i> thriving well. <i>Beali</i> is being weeded. Miscellaneous crops doing well. Rice sells at from 12 seers to 17 seers 1 chitak per rupee.
	Khurda ...	5.20	
41	Balasore „ 22, '93	8.69	Weather—cloudy, and very heavy rain on Thursday (20th) but apparently only local. Transplanting of paddy nearly finished. Prospect of 12 annas crop. Prices of rice :— Srs. Balasore ... .. 13 Khudrak ... .. 15 Chandballi ... .. 12 } per rupee.
<b>CHOTA NAGPUR.</b>			
<i>South-West Frontier Agency.</i>			
CHOTA NAGPUR DIV.	42 Hazaribagh July, 22, '93	10.01	Weather—seasonable. Transplanting of rice and <i>marua</i> still in progress. Indian-corn seriously injured by excessive rain. Other crops doing well. Fodder abundant. Prices of common rice :— Srs. Head-quarters ... .. 9 to 14 Giridi ... .. 9 to 12 } per rupee.
	Giridi ...	6.92	
	43 Lohardaga „ 22, '93	2.67	Weather—seasonable. Transplantation of winter rice continues. Prospects of <i>bhadoi</i> good. Common rice selling at 12 seers per rupee. Fodder and water sufficient.
	44 Palaman „ ...	...	Report not received.
	45 Singhbhum „ 22, '93	4.34	Weather—seasonable. All crops doing well. Prices stationary. Cattle-disease reported from some villages in the Kolhan.
	46 Manbhum „ 22, '93	7.08	Weather—fair from yesterday (21st). Transplantation vigorously going on. Prospects so far good. Prospects of Indian-corn and some pulses bad. Price of rice 10 to 12 seers per rupee. Fodder and water very sufficient.
	Gobindpur. ...	10.03	

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 25th July, 1893.

H. H. RISLEY,  
Secy. to the Govt. of Bengal.



**PRICES-CURRENT (*RETAIL*) OF FOOD-GRAINS, FIREWOOD AND SALT IN THE  
HEAD-QUARTERS STATION BAZARS OF THE DISTRICTS OF BENGAL  
DURING THE FORTNIGHT ENDING THE  
15<sup>TH</sup> JULY 1893.**

## PRICES-CURRENT (retail) of Food-grains, Firewood, and Salt in the

Number.		DISTRICTS.	QUANTITIES PER RUPEE IN																	
			WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU. (Sorghum Vulgare.)					
			Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.			
BENGAL.																				
BURDWAN DIVISION.	1	Burdwan	13 8	13 8	11 12	...	...	...	9 4	9 4	10 8	11 4	11 4	12 13 1	...	...	...			
	2	Bankura	13 4	13 8	10 0	...	...	...	9 8	9 8	10 0	11 4	11 4	12 8	...	...	...			
	3	Birbhum	12 0	12 0	10 10	...	...	...	10 8	10 8	10 8	12 0	12 12	12 0	...	...	...			
	4	Midnapore	11 0	11 0	11 0	...	...	...	10 0	10 0	10 0	11 8	11 8	11 8	...	...	...			
	5	Hooghly	11 12	11 12	12 0	...	...	...	8 0	8 0	8 0	10 0	10 0	12 0	...	...	...			
	6	Howrah	...	...	...	...	...	...	8 13	8 12	8 14	10 12	10 10	13 1	...	...	...			
PRESIDENCY DIVISION.	7	Calcutta	12 8	13 4	11 6	17 3	17 12	11 6	8 0	8 3	8 0	10 5	10 10	11 0	20 0	20 0	14 4			
	8	24-Parganas	11 4	11 4	11 8	20 0	20 0	16 0	8 0	8 0	8 0	11 0	11 0	11 8	16 0	16 0	...			
	9	Nadia	14 8	14 8	12 0	21 0	21 0	18 9	8 8	8 12	10 5	10 6	10 11	11 4	...	...	...			
	10	Khulna	...	...	...	...	...	...	8 0	9 2	10 8	9 0	10 0	11 8	...	...	...			
	11	Jessore	10 0	10 0	10 0	13 0	13 4	...	8 8	9 4	10 0	10 0	10 8	13 0	...	...	...			
	12	Murshidabad	12 0	12 0	12 0	...	...	...	9 0	9 0	9 0	11 0	11 0	12 8	...	...	...			
CHITTAGONG DIVISION.	13	Chittagong	10 0	10 0	10 8	...	...	...	10 0	10 8	8 0	11 8	11 12	9 13	...	...	...			
	14	Noakhali	...	...	...	...	...	...	9 6	10 0	10 0	11 4	11 6	11 0	...	...	...			
	15	Tippera	9 8	10 0	10 0	...	...	...	8 12	8 12	8 6	10 0	10 12	10 13 1	...	...	...			
	16	Chittagong Hill Tracts.	...	...	...	...	...	...	...	...	...	7 0	9 0	10 0	...	...	...			
DACCA DIVISION.	17	Dacca	12 0	12 0	10 8	...	...	...	9 8	9 0	10 0	10 8	10 0	12 0	...	...	...			
	18	Faridpur	16 0	17 0	14 0	18 0	20 0	...	8 0	7 0	10 0	10 12	9 8	11 8	...	...	...			
	19	Backergunge	...	...	...	...	...	...	9 0	9 0	7 4*	9 4	9 12	11 0	...	...	...			
	20	Mymensingh	9 8	9 8	9 8	...	...	...	10 0	10 0	10 0	11 8	11 0	13 0	...	...	...			
RAJSHAH DIVISION.	21	Dinaipur	13 4	12 0	10 0	16 0	16 0	16 0	9 4	9 0	8 10	11 8	12 0	10 3	...	...	...			
	22	Rajshahi	15 0	13 8	12 0	24 0	24 0	19 8	9 12	9 12	9 12	10 8	10 14	10 8	...	...	...			
	23	Rangpur	12 0	13 0	12 0	...	...	...	10 0	10 0	9 0	11 0	11 0	10 0	...	...	...			

SEEDS OF 80 TOLAHS.					
BAJRA OR CUMBU. ( <i>Pennisetum typhoidum.</i> )		MARUA OR RAGI. ( <i>Eleusine Corocana.</i> )	KANGNI OR KAKUN, ITALIAN MILLLET. ( <i>Setaria italica.</i> )		(GRAM, CHANA, CHHOLA, KADALAY, OR SUNAGA. ( <i>Cicer arietinum.</i> )
Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.

1404a



## Head-quarters Station Bazars of the Districts of Bengal on the 15th July, 1893.

SALT.			WHOLESALE PRICES PER MAUND OF 40 SEERS.			AVERAGE WAGES PER MONTH.												DISTRICT.	Number.
SALT.			SALT.			UNSKILLED LABOUR— ABLE-BODIED AGRICULTURAL LABOURER.			SPON OR HORSE- KEEPER.			SKILLED LABOUR— COMMON MASON, CARPENTER, OR BLACKSMITH.							
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding returns of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.		
BENGAL.																			
S. Ch.	S. Ch.	S. Ch.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.		
A	11 11	11 11	11 4	8 7 0	8 7 0	8 6 8	7 8	7 0	8 0	6 0	6 0	6 0	10 0	10 0	10 0	Burdwan	1		
B	10 5	10 0	10 0	8 14 0	8 14 0	4 0 0	5 0	6 0	6 0	4 0	4 0	4 0	15 0	15 0	15 0	Bankura.	2		
C	11 0	11 0	10 14	3 10 6	3 10 6	3 10 0	6 0	6 0	6 0	4 0	4 0	4 0	15 0	15 0	15 0				
D	10 12	10 12	11 0	3 11 6	3 11 6	3 12 0	7 0	7 0	7 0	5 0	5 0	5 0	12 0	12 0	12 0			Midnapore.	4
E	10 0	10 0	10 0	3 6 0	3 6 0	3 12 0	9 6	7 8	9 13 6	6 0	6 0	6 0	12 0	12 0	12 0	Hooghly.	5		
F	10 10	10 10	10 10	3 8 0	3 8 0	3 8 0	7 8	9 6	7 8	7 0	7 0	7 0	12 0	12 0	12 0	Howrah.	6		
Cooly.																			
G	10 8	10 7	11 4	3 18 0	3 18 0	3 5 0	9 0	8 0	9 0	7 0	6 0	8 0	15 0	15 0	15 0	Calcutta.	7		
H	11 0	11 0	11 0	3 6 0	3 6 0	3 4 0	10 0	10 0	10 0	7 0	7 0	7 0	20 0	20 0	20 0	24-Parganas.			
I	11 6	11 7	10 10	3 8 0	3 8 0	3 8 0	7 8	7 8	7 8	7 8	6 0	6 0	15 0	15 0	15 0	Nadia.		8	
J	9 2	10 8	9 0	4 0 0	3 12 0	4 0 0	7 8	7 8	7 8	7 0	7 0	8 0	15 0	15 0	15 0	Khulna.		9	
K	9 14	9 14	9 2	3 10 0	3 10 0	3 10 0	7 8	7 8	7 8	6 0	6 0	5 0	10 0	10 0	10 0	Jessore.		10	
L	10 8	10 8	10 8	3 7 0	3 7 0	3 7 0	12 3	12 3	12 3	4 0	4 0	4 0	20 0	20 0	20 0	Murshidabad.		11	
M	9 8	10 0	9 4	3 12 0	4 0 0	4 2 0	9 0	11 0		7 8	8 0	12 0	13 0	13 0	13 0	Chittagong.	12		
N	9 7	10 0	9 0	3 14 0	3 14 0	4 4 0	5 0	6 0	5 0	5 0	5 0	10 0	10 0	10 0	10 0	Noakhali.	13		
O	10 12	10 12	10 0	3 12 0	3 12 0	4 0 0	7 0	7 8	7 0	6 0	6 0	6 0	15 0	15 0	15 0	Tippera.	14		
P	8 0	8 0	8 0	4 8 0	4 8 0	4 12 0	12 0	12 0		12 0	12 0	20 0	20 0	20 0	20 0	Chittagong Hill Tracts.	15		
Q	10 0	10 0	10 0	3 9 0	3 9 0	3 11 0	5 0	6 0	6 0	5 0	6 0	6 0	7 0	8 0	8 0	Dacca.	16		
R	10 4	10 4	10 0	3 14 0	3 14 0	4 0 0	10 0	10 0	9 6	6 0	6 0	7 0	15 0	15 0	15 0	Faridpur.	17		
S	10 0	10 10	10 0	3 12 0	3 12 0	3 10 0	6 0	6 0	6 0	7 0	7 0	7 0	13 8	13 8	13 8	Backergunge.	18		
T	10 0	10 0	10 0	4 0 0	4 0 0	3 15 0	7 8	7 0	7 0	6 0	7 0	7 0	15 0	15 0	15 0	Mymensingh.	19		
U	10 0	10 0	10 0	3 12 0	4 0 0	3 12 0	7 8	7 8	7 8	6 0	6 0	6 0	10 0	7 8	10 0	Dinajpur.	20		
V	9 9	9 9	9 9	3 10 8	3 10 8	3 16 8	5 0	5 0	5 0	5 0	5 0	5 0	15 0	15 0	15 0	Rajshahi.	21		
W	8 8	10 0	10 0	4 0 0	3 12 0	4 0 0	7 0	7 0	7 0	6 0	6 0	6 0	15 0	15 0	15 0	Rangpur.	22		

- J In the subdivisions the retail prices of salt per rupee are :—Jhenida 9 seers 9 chittaks, Magura 10 seers, Narail 9 seers 10 chittaks, and Bangan 10 seers 11 chittaks.
- K At Kandi the retail price of salt is 11 seers per rupee.
- L At Cox's Bazar the retail price of salt is 8 seers per rupee.
- M At Fanny Hat the retail price of salt is 8 seers per rupee.
- N In the subdivisions the retail prices of salt per rupee are :—Chandpur 9 seers and Brahmanbaria 9 seers 2 chittaks.
- O Retail prices of salt in the principal marts in the interior of the district are :—Madanganj 10 seers, Manikganj 9 seers 13 chittaks, Munshirhat 10 seers, and Mirzapur 10 seers.
- P In Goalanda and Madaripur the retail price of salt is 10 seers per rupee.
- Q In the subdivisions the retail prices of salt per rupee are :—Pirojpur 10 seers, Patnakhali 9 seers, and Bhoja 9 seers.
- R In the subdivisions the retail prices of salt per rupee are :—Kishorganj 8 seers, Kagramari 10 seers, Netrakona 10 seers, and Jamalpur 10 seers.
- S In the subdivisions the retail prices of salt per rupee are :—Nator 9 seers and Naugach 9 seers 9 chittaks.
- T In the subdivisions the retail prices of salt per rupee are :—Kusigonj 8 seers, Nilphamari 10 seers, and Gailanda 10 seers.

## PRICES-CURRENT (retail) of Food-grains, Firewood, and Salt in the Head-quarters

Number.		DISTRICTS	QUANTITIES PER RUPEE IN																	
			WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU. (Sorghum Vulgare.)					
			Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.			
BENGAL—continued.																				
RAJSHAH DIVISION —continued.		23 Bogra	13 8	13 5	12 0					9 12	9 0	9 12	11 10	12 0	11 4					
		24 Pabna	17 4	17 4	13 8	20 10	22 8			6 0	6 0	6 12	11 4	10 14	12 0					
		25 Darjeeling	8 0	8 0	8 0	9 0	9 0	8 0		5 0	5 8	5 0	10 0	9 8	8 8					
		26 Jalpaiguri	13 0	13 0	11 0	12 0	12 0	16 0		8 0	8 0	6 0	11 0	11 8	10 0					
BIHAR.																				
BHAGALPUR DIVISION.		27 Monghyr	15 12	14 8 to 16 0	13 0	21 0 to 23 0	21 0	13 5	10 0 to 10 0	8 0 to 10 0	9 0	12 0 to 13 8	10 0		17 8	15 0				
		28 Bhagalpur	15 2	15 2	13 14	20 3	21 7	15 2	11 14	12 10	9 12	13 11	13 14	10 11						
		29 Purnea (Kasba)	16 0	14 0	11 0				10 0	10 0	10 0	12 0	13 0	11 0						
		30 Madia (English Bazar).	14 0	13 8	12 0				10 0	10 0	10 0	12 8	12 8	10 8						
		31 Sonthal Parganas.	11 0	11 0	11 0				11 0	11 0	9 0	11 0	14 0	11 8						
PATNA DIVISION.		32 Patna	16 8 14 0	16 8 White. 14 0	15 0 14 0	21 0	21 0	18 8	10 0	10 0	10 0	15 8	15 8	12 8	23 0	22 0	18 8			
		33 Gaya	13 12	13 12	12 8	20 4	20 4	16 8	9 8	9 8	9 0	13 0	13 0	11 12	18 4	18 4	13 8			
		34 Shahabad	13 0	14 0	13 0	15 0	18 0	16 0	8 0	8 0	8 0	13 0	14 0	11 0						
		35 Darbhanga	12 9	12 0	12 10	19 11	18 14	17 10	12 5	12 9	10 0	13 14	14 0	12 1						
		36 Muzaffarpur	14 8	13 0	13 0	19 0	19 0	17 0	8 0	8 0	8 0	13 0	13 0	12 0						
		37 Saran	15 4	14 8	13 8	21 0	21 4	17 12	10 0	10 0	8 4	13 0	13 0	11 0						
		38 Champarni	14 0	13 0	12 0	23 0	22 5	17 0	8 8	8 8	9 0	13 4	13 8	12 8						
ORISSA.																				
ORISSA DIVISION.		39 Cuttack	11 13	10 8	9 13				10 8	10 8	8 8	14 7	13 2	11 11						
		40 Puri	8 8	8 2	9 3				8 0	8 0	7 8	13 0	11 13	11 13						
		41 Balasore	11 0	11 0	11 0	10 0	10 0	10 0	9 0	10 0	10 0	13 0	13 0	14 8						
CHOTA NAGPUR.																				
CHOTA NAGPUR DIVISION.		42 Hazaribagh	12 4	12 0	12 0	16 0	18 0	15 0	7 8	7 0	8 0	12 4	12 0	12 8						
		43 Lohardaga	10 0 8 0 9 0	11 0 8 0 8 0	10 0 7 8 8 8	16 0	16 0	12 0	10 0 to 11 0	10 0 to 11 0	11 0 to 12 0	12 0 to 13 8	12 0 to 13 0	13 0 to 14 8						
		44 Palamau	13 8	12 6	11 4	21 15		15 12	12 15	11 13	12 15	14 10	12 6	13 8						
		45 Singhbhum	11 0	10 0	13 8				8 0	9 0	12 0	10 0	11 0	15 0						
46 Manbhum	13 4	13 4	11 8				8 3	8 0 to 9 0	10 0	12 8 to 13 0	13 0									

\* The price of salt at Motihari has risen considerably on account of the rains.

U At Sirganj the retail price of salt is 11½ seers per rupee.

V At Siliguri the retail price of salt is 8 seers per rupee.

W At Alipur the retail price of salt is 8 seers per rupee.

X In Begusarai and Jaimui subdivisions the retail price of salt is 10 seers per rupee.

Y In Banka, Madhipura, and Supaul subdivisions the retail price of salt is 10 seers per rupee.

Z In the subdivisions the retail prices of salt per rupee are:—Kishanganj 10½ seers and Araria 10 seers.

a In the subdivisions the retail prices of salt per rupee are:—Deoghur 10½ seers, Godda 9 seers, Palur 10½ seers, Rajmahal 10 seers.

b In the subdivisions the retail prices of salt per rupee are:—Barh 11 seers, Bihar 10½ seers, and Dinapore 9½ seers.

CALCUTTA,

The 25th July, 1893.

## Station Bazars of the Districts of Bengal on the 15th July, 1893—(concluded).

			WHOLESALE PRICES PER MAUND OF 40 SEERS.			AVERAGE WAGES PER MONTH.											
SALT.			SALT.			UNSKILLED LABOUR— ABLE-BODIED AGRICULTURAL LABOURER.			STEEL OR HORSE- KEEPER.			SKILLED LABOUR— COMMON MASON, CARPENTER, OR BLACKSMITH.					
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	DISTRICTS.		Number.
S. Ch.	S. Ch.	S. Ch.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.			
9 9	9 14	9 9	4 0 0	4 5 4	3 14 0	7 8	7 8	7 8	5 0	5 0	5 0	10 0	10 0	10 0	Bogra.	23	RAJSHAHI DIVISION —contd.
U	10 8	9 12	3 9 6	3 9 6	3 11 0	5 0	5 0	5 0	7 0	7 0	7 0	20 0	20 0	20 0	Pabna.	24	
V	8 0	8 0	4 12 0	4 10 0	4 10 0	7 0	7 0	7 8	8 0	8 0	8 0	12 0	15 0	15 0	Darjeeling.	25	
W	10 0	10 0	3 15 0	4 0 0	4 0 0	7 8	7 8	7 8	8 0	9 0	9 0	20 0	20 0	20 0	Jalpaiguri.	26	
X	10 12	10 8	3 14 0	3 7 0	3 12 0	4 11	2 12	3 12 3 0	2 0	4 0	7 8	3 0	4 4	4 4	Monghyr.	27	BIHAR. BHAGALPUR DIVISION.
Y	10 8	10 11	3 10 0	3 12 0	3 12 0	4 0	4 0	5 0 4 0	4 0	5 0	11 4	5 0	15 0	15 0	Bhagalpur.	28	
	10 0	11 0	3 10 0	3 10 0	3 10 0	4 11	4 11	4 11 4 0	4 0	5 0	12 0	10 0	16 0	16 0	Purnea.	29	
Z	10 0	10 0	4 0 0	4 0 0	3 12 0	7 0	7 8	7 8	5 0	5 0	5 0	8 0	8 0	8 0	Malda.	30	
a	10 0	10 8	3 12 0	3 10 3	3 10 3	4 0	3 12	3 12	5 0	5 0	5 0	7 8	7 8	7 8	Southal Parganas.	31	PATNA DIVISION.
b	11 4	11 4	3 10 0	3 10 0	3 11 0	4 0	4 0	4 11	4 8	4 8	4 0	7 0	7 0	7 8	Patna.	32	
c	9 12	9 12	3 13 0	3 13 0	3 13 0	3 0	3 0	2 8	3 0	3 0	3 0	5 8	5 8	5 8	Gaya.	33	
d	10 0	10 0	4 0 0	4 0 0	3 10 0	4 0	4 0	4 0	5 0	5 0	5 0	8 0	8 0	8 0	Shahabad.	34	
e	10 4	10 4	3 14 6	3 14 0	3 8 0	3 12	3 12	3 12	4 0	3 0	4 0	5 10	4 8	7 8	Darbhanga.	35	CHOTA NAAGPUR
f	11 0	11 0	3 10 0	3 10 0	3 11 0	3 12	3 12	3 12	3 0	3 0	3 0	5 10	5 10	5 10	Muzaffarpur.	36	
g	10 8	10 8	3 8 0	3 12 0	3 12 0	3 12	3 12	3 12	4 0	4 0	4 0	5 10	5 10	5 10	Saran.	37	
h	7 18 1/2	10 8	4 12 0	3 13 0	3 10 0	4 0	4 0	4 0	4 0	4 0	4 0	10 0	10 0	10 0	Champanan.	38	
i	9 0	10 12	4 6 0	3 8 0	4 6 0	5 10	5 10	5 10	5 0	5 0	5 0	7 8	7 8	7 8	Cuttack.	39	ORISSA DIVISION.
j	10 8	10 8	3 12 0	3 12 0	3 10 0	4 0	4 0	4 0	5 0	5 0	5 0	7 8	7 8	7 8	Puri.	40	
k	11 0	11 0	3 8 0	3 10 0	3 10 0	4 0	4 0	4 0	5 0	5 0	5 0	10 0	10 0	10 0	Balasore.	41	
l	9 0	9 0	4 4 0	4 4 0	4 0 0	5 0	4 4	4 4	6 0	5 0	5 0	7 8	7 8	7 8	Hazaribagh.	42	CHOTA NAAGPUR
m	9 4	9 0	4 2 0	4 2 6	4 4 0	3 12	3 12	3 12	4 0	6 0	4 0	5 10	5 10	3 12	Lohardaga.	43	
n	7 14	8 2 1/2	...	...	...	5 10	3 0	3 12	5 0	4 0	5 0	9 6	7 8	7 8	Palarnau.	44	
o	9 0	9 0	4 6 0	4 6 0	4 6 0	4 0	4 0	4 0	7 0	6 0	6 0	15 0	12 0	12 0	Singbhum.	45	
p	10 10	10 10	3 10 0	3 11 0	3 12 0	4 11	5 2 6	5 2 6	6 0	6 0	6 0	22 8	18 12	18 12	Manbhum.	46	

- a In the subdivisions the retail prices of salt per rupee are :—Jahanabad 10 seers, Aurangabad 10 seers, and Nawada 9 seers.  
 b In the subdivisions the retail prices of salt per rupee are :—Buxar 10½ seers, Sasaram 10½ seers, and Bhabhua 9½ seers.  
 c At Madhubani the retail price of salt is 11 seers per rupee.  
 d In the subdivisions the retail prices of salt per rupee are :—Hajipur 10½ seers and Sitamarhi 11 seers.  
 e In the subdivisions the retail prices of salt per rupee are :—Siwan 10 seers 14 chitaks and Gopalganj (Mirganj) 11 seers 13 chitaks.  
 f At Bettiah the retail price of salt is 10 seers per rupee.  
 g At Bhadrak the retail price of salt is 9 seers per rupee.  
 h At Giridih the retail price of salt is 11 seers per rupee.  
 i At Gobindpur the retail price of salt is 11 seers per rupee.

*PRICES-CURRENT (wholesale) of Food-grains, Firewood, and Salt*

Number.	MARKS.	WHEAT.			BARLEY.			RICE, BEST SORT.			RICE COMMON.		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
		R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
1	Calcutta ...	3 8 0	3 0 0	3 3 0	2 4 6	2 4 6	2 8 0	5 0 0	4 14 0	4 12 0	3 14 0	3 12 0	3 6 0
2	Sirajganj ...	3 4 0	3 6 0	3 3 0	...	...	...	6 0 0	6 5 0	5 11 0	3 14 0	3 14 0	3 6 0
3	Dacca ...	3 4 0	3 4 0	3 12 0	...	...	...	4 3 0	4 7 0	4 0 0	3 12 0	4 0 0	3 5 0
4	Narayanganj ...	...	...	...	...	...	...	4 0 0	4 1 0	3 8 0	3 0 0	3 11 0	3 2 0
5	Chittagong ...	4 0 0	4 0 0	3 12 0	...	...	...	4 0 0	3 12 0	3 12 0	3 8 0	3 5 6	4 0 0
6	Patna ...	2 7 6	Rod. 2 7 6	2 10 0	1 14 6	1 14 6	2 2 7	4 0 0	4 0 0	4 0 0	2 9 9	2 9 9	3 2 0
		2 14 0	White. 2 14 0	2 13 6									
7	Balasore ...	3 8 0	3 12 0	3 8 0	3 12 0	3 12 0	3 12 0	4 4 0	3 12 0	3 12 0	3 0 0	3 0 0	2 14 0
8	Puri ...	4 10 0	4 12 0	4 5 0	...	...	...	5 0 0	5 0 0	5 5 4	3 0 0	3 4 0	3 6 0
9	Cuttack ...	3 4 0	3 10 0	4 0 0	...	...	...	3 10 0	3 10 0	4 10 0	2 12 0	3 0 0	3 6 0

CALCUTTA,  
The 25th July, 1893.



in the undermentioned Marts of Bengal on the 15th July, 1893.

GRAM, CHANA, CHHOLA, KADALAY OR SUNAGA. (Cicer Aristicum.)			INDIAN-CORN OR MAIZE. (Zea Mays.)			ARBEAR OR THUR, CADJAN PEA. (Cajanus indicus.)			FIREWOOD.			SALT.			MARTS.
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	
2 8 0	2 8 0	2 9 9	2 0 0	2 0 0	...	2 0 0	2 0 0	2 6 6	0 7 0	0 7 0	0 6 3	3 13 0	3 13 0	3 5 0	Calcutta.
3 4 0	3 8 0	3 2 0	...	...	...	...	...	...	0 6 6	0 6 6	0 8 0	3 8 0	3 8 0	3 7 0	Sirajganj.
3 2 0	2 14 0	2 12 0	...	...	...	2 4 0	2 1 0	2 10 0	0 5 0	0 5 0	0 5 0	3 9 0	3 9 0	3 11 0	Dacca.
2 14 0	3 8 0	3 12 0	...	...	...	3 2 0	3 4 0	4 4 0	0 6 0	0 6 0	0 8 0	3 10 0	3 10 0	4 0 0	Narayanganj.
3 10 0	3 10 0	3 7 0	...	...	...	...	...	...	0 7 0	0 6 0	0 5 0	3 12 0	4 0 0	4 2 0	Chittagong.
1 14 6	1 14 6	2 3 6	1 14 6	1 14 6	2 5 7	1 11 9	1 11 9	1 14 5	0 5 0	0 5 0	0 5 0	3 10 0	3 10 0	3 11 0	Patna.
2 14 0	2 14 0	2 14 0	...	...	...	3 10 0	3 10 0	3 10 0	...	...	...	3 8 0	3 10 0	3 10 0	Balassore.
2 8 0	2 8 0	2 15 0	...	...	...	2 8 0	2 8 0	2 15 0	0 8 0	0 8 0	0 8 0	3 12 0	3 12 0	3 10 0	Puri.
2 0 0	(Kulai) 2 0 0	2 8 0	...	...	...	2 0 0	2 0 0	3 10 0	0 8 0	0 8 0	0 8 0	4 6 0	3 8 0	4 6 0	Cuttack.

Published for general information.

H. H. RISLEY,  
Secretary to the Govt. of Bengal.

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.											
			AIR PRESSURE.				WIND.		TEMPERATURE.					
			Mean barometric height, 8 A. M., reduced to 32°.	Mean reduced to sea-level and constant gravity, lat. 45°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.
ORISSA.	Puri	Puri	29.617	29.592	—	W	223	90.7	21st July	78.0	16.19 & 21st July	88.6	* 60.0	84.4
	...	Gopalpore	29.621	29.582	+0.029	SWly	200	89.2	21st	75.8	16th	87.5	77.7	82.6
	...	False Point	29.613	29.576	+0.029	SW	257	89.0	21st	76.6	22nd	86.9	77.8	82.4
	Cuttack	Cuttack	29.530	29.501	+0.028	WSW	122	89.2	22nd	77.3	17.20	88.5	78.2	83.4
	Balasore	Balasore	29.543	29.515	+0.017	SW	119	89.4	22nd	75.7	20th	86.7	77.6	82.2
SOUTH-WEST BENGAL.	Midnapore	Midnapore	29.464	29.500	+0.026	SWly	71	91.3	22nd	77.1	20.21	88.7	78.2	89.5
	24-Parganas	Calcutta	29.589	29.550	+0.031	SEly	72	88.1	16.23	76.7	18th	85.7	78.1	81.9
	...	Saugor Island	29.587	29.556	+0.033	SW	380	88.2	22nd	78.0	16.20	86.6	79.6	83.1
	Howrah	Howrah	...	...	...	...	...	...	...	...	...	...	...	...
	Nadia	Krishnagar	29.558	29.533	+0.029	ENE	139	90.3	22nd	78.2	19.29	88.2	78.7	88.5
NORTH BENGAL.	Khulna	Jessore	29.588	29.568	+0.023	SE	129	88.5	10th	77.4	17. & 20	87.2	78.5	82.0
	Burdwan	Burdwan	29.510	29.554	+0.029	E	77	91.1	16th	78.2	21st	88.3	79.2	83.6
	...	Raniganj	29.563	29.545	+0.029	Variable	65	91.7	20th	76.8	16.17.19 & 21st July	89.1	77.5	83.4
	Ranikura	Baukura	29.582	29.530	+0.022	Variable	71	91.1	22nd	75.6	21st	88.3	77.7	83.0
	Birbhum	Berhampore	29.534	29.540	+0.011	SEly	85	89.6	22nd	77.8	20th	86.7	78.9	82.9
EAST BENGAL.	Patna	Sirajganj	29.578	29.574	+0.018	SEly	121	87.1	16.10.20	77.8	17 & 19	86.7	78.7	82.7
	Bogra	Bogra	29.557	29.570	+0.045	SE	119	89.2	22nd	76.2	17.18.20	88.1	77.3	82.7
	Rajshahi	Rampur Bazar	29.553	29.552	+0.027	SEly	164	88.1	18 & 22	76.1	17.20	87.5	77.5	82.4
	Malda	Malda	...	...	...	...	...	...	...	...	...	...	...	...
	Dinajpur	Dinajpur	29.495	29.563	+0.068	SEly	70	90.1	20th	78.7	17th	89.2	79.3	84.3
NORTH BIHAR.	Rangpur	Rangpur	29.513	29.589	+0.039	ESE	75	89.8	16th	76.7	21st	88.8	78.1	83.5
	Jalpaiguri	Jalpaiguri	29.569	29.605	+0.076	SEly	61	89.9	16.20	76.1	16.22	89.2	77.2	83.2
	Kuch Bihar	Darjeeling	29.871	—	+0.099	Variable	77	68.6	16th	65.6	18.19	66.7	56.9	61.8
	...	Ghatotung	19.065	—	—	WNW	7	55.9	22nd	55.6	21.6	54.6	37.1	46.9
	Chittagong	Chittagong	29.617	29.651	+0.044	SSE	...	86.7	21st	...	17th	84.8	75.3	80.1
SOUTH BIHAR.	Chittagong Hill Tracts	Domagiri	...	...	...	...	...	Observations not received.						...
	Rackergunge	Barisal	29.634	29.592	+0.012	SSE	136	89.8	22nd July	75.9	17.20	85.4	77.3	81.4
	Noakhali	Noakhali	29.628	29.618	+0.027	SSE	...	86.5	22nd	74.8	20th	83.4	76.8	80.1
	Faridpur	Faridpur	29.603	29.597	+0.033	SEly	175	87.0	16th	77.9	17.20	86.4	78.5	82.5
	Dacca	Dacca	29.615	29.593	+0.022	SE	202	89.1	16th	78.2	17-20	87.1	79.0	83.1
CHOTA NAGPUR.	Tippera	Comilla	29.531	29.614	+0.034	E	181	86.9	21st	74.8	17th	85.6	76.4	81.1
	Mymensingh	Mymensingh	29.500	29.600	+0.023	ESE	164	87.2	21st	76.6	18.20	86.0	77.7	81.9
	Purnea	Purnea	29.463	29.540	+0.063	Calm	17	91.2	20th	78.2	19th	89.2	80.1	84.6
	Bhagalpur	Bhagalpur	29.421	29.533	+0.017	Calm & Ely	62	89.7	22nd	76.6	17th	89.1	78.2	83.7
	Darbhanga	Darbhanga	29.424	29.546	+0.012	ESE	138	89.4	19.21	79.2	20.22	88.4	79.8	84.2
ARUN.	Muzaffarpur	Muzaffarpur	29.416	29.546	—	ESE	123	90.7	19th	79.2	17.20	89.4	79.6	84.6
	Champanan	Mothari	29.363	29.542	+0.029	ENE	116	92.2	22nd	76.9	19.20	91.1	78.6	84.9
	Saran	Chapra	29.406	29.531	+0.038	ESE	94	90.3	19.21.22	78.1	19th	88.2	79.0	84.0
	Shahabad	Dehri	29.236	29.540	+0.027	W	100	88.8	18th	76.0	16.21.22	84.9	77.0	80.6
	...	Buxar	29.352	29.544	+0.033	Ely	99	89.0	17.18	76.7	16.18	86.4	77.6	82.0
SOUTH BIHAR.	...	Arrah	29.386	29.525	+0.030	Variable	43	91.4	19th	78.0	19th	88.7	79.2	84.0
	Gaya	Gaya	29.296	29.534	+0.014	W	140	90.9	19th	76.8	20.22	87.7	77.5	82.6
	Patna	Bankipore	29.309	29.533	+0.065	E	114	90.0	19th	77.7	17th	87.9	79.1	83.5
	Monghyr	...	...	...	...	...	...	...	...	...	...	...	...	...
	Sonthal Parganas	Naya Dumka	29.602	29.534	+0.018	SEly	155	88.0	16.20	76.7	17th	86.7	77.6	82.2
ARUN.	Hazaribagh	Hazaribagh	27.609	29.551	+0.021	Variable	189	84.2	18th	70.3	19th	81.8	71.9	76.9
	Lohardaga	Ranchi	27.484	29.537	+0.017	Wly	...	84.0	17.18	69.4	20th	82.4	71.6	77.0
	Palamau	...	...	...	...	...	...	...	...	...	...	...	...	...
	Singbhum	Chaibassa	28.826	29.539	+0.025	Calm	33	90.4	22nd	75.2	20.21	87.9	76.4	82.2
	Manbhum	...	...	...	...	...	...	...	...	...	...	...	...	...
ARUN.	Silbazar	Silbazar	29.352	29.633	+0.023	SW	...	92.1	20th	76.0	16th	80.4	78.0	85.7
	Gowalpara	Dhubri	29.528	29.596	+0.013	Variable	82	88.2	20th	76.8	18.21	80.5	77.7	82.1
	Cachar	Sitchar	29.532	29.647	+0.030	Calm	...	90.5	20th	75.3	18.19	88.1	76.8	82.5

\* Mean of 6 days. † Mean of 4 days.

**Explanation.—Summary.**—The normal means of air pressure and temperature are the arithmetical average or mean of the reading during the same period. The humidity of the atmosphere is expressed as percentage, estimated on being presented by 100. A clear sky is denoted by 0 and an overcast sky by 101. The normal mean are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional stations. district, e.g., from total rainfall at the subdivisional stations in the district dividing in returns divided by the number of stations. A rainy day is one of

for the week ending Saturday, the 22nd of July 1893.

DISTRICT OBSERVATIONS.															DISTRICT.	
Variation from normal mean.	Mean 8 A.M. temperature.	Average humidity at 8 A.M.	Average cloud amount at 8 A.M.	Rainfall of week at observing station.	OF WEEK.				RAINFALL.							
					Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Since 1st of month.			Since 10th May 1893.				
									Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.		
-	83.7	82	7.0	0.4		3.07		3.53		8.81			18.33		Puri.	
-0.4	82.5	83	3.0	0.0												Cuttack.
-0.3	82.1	85	7.9	1.0												
-0.7	82.7	76	6.7	0.3		2.07		3.46		8.07			19.98		Midnapore.	
-1.0	80.6	92	4.0	8.18		2.94		3.65		8.74			19.38			24-Parganas.
-0.4	82.1	86	5.7	1.8	2.49	2.70	4.25	3.52	4.61	8.91	-4.30	39.31	23.21	+19.10			Howrah.
-1.5	81.1	92	9.7	3.2	3.30	2.74	5.57	3.91	8.27	8.40	-0.19	37.29	20.98	+16.32	Hooghly.	
-1.0	81.8	91	9.0	5.0												Nadia.
					2.04	2.63	5.00	4.18	6.54	8.54	-2.00	38.72	20.23	+18.40			Khulna.
						2.63		3.82		7.88			19.51		Jessore.	
-1.2	81.7	87	8.7	3.87		1.83		3.23		6.84			10.07			Burdwan.
					3.85	3.12	5.33	4.43	12.00	8.79	+3.30	42.27	24.57	+17.70			Bankura.
-1.6	81.3	91	9.1	1.10	1.69	1.94	5.90	3.41	6.42	6.60	-0.18	3.83	21.48	+9.35	Bipbhdm.	
-1.3	81.8	86	8.7	2.83	3.00	2.35	4.00	3.31	9.95	7.14	+2.61	34.56	18.35	+16.21		Murshidabad.
-1.2	80.8	90	3.7	2.43												
-1.1	80.0	80	8.0	2.08	2.74	2.42	5.25	3.69	8.58	8.56	+0.02	36.84	20.07	+16.77	Bogra.	
					3.00	2.57	5.00	3.32	9.83	8.17	+1.65	28.52	20.19	+8.08		Rajshahi.
-1.7	80.4	94	9.3	2.09	2.07	2.22	5.33	3.24		7.62			19.73				Malda.
-1.4	81.2	91	9.7	0.62	1.49	1.97	4.00	2.95	12.43	7.16	+5.27	42.50	21.03	+20.57	Dinajpur.	
-1.9	81.2	89	6.2	2.03		2.55		3.13		8.71			25.82			Rangpur.
-1.8	83.0	89	7.3	2.30		2.48		3.55		8.31			23.61				Jalpaiguri.
						2.11		3.38		8.81			23.05		Kuchl Bihar.	
						2.14		2.95		8.06			26.14			Darjeeling.
+0.8	81.1	90	9.3	1.39		2.58		2.68		10.32			38.42				Sikkim.
-1.2	81.8	88	2.7	1.46		2.58		2.68		10.32			38.42		Cumtackong.	
0	81.6	87	7.3	6.89	6.67	5.95	3.00	4.10	31.07	20.50	+10.57	57.35	57.08	+0.27		Chittagong Hill
					1.18	4.41	2.75	3.75	20.28	14.30	+5.78	50.10	54.48	+4.12			Tracts.
-0.5	80.6	98	10.0	3.44		6.09		4.95		25.98			61.15		Backergunge.	
-	81.1	86	6.3	4.70												Noakhali.
+1.1	78.8	93	9.9	2.34		6.49		4.43		20.03			54.17				Faridpur.
					1.70	3.69	6.00	5.25	17.66	11.62	+6.04	60.93	34.73	+32.20	Dacca.	
-0.6	80.3	89	10.0	3.42	5.02	3.96	6.00	4.95	11.94	12.18	-0.24	51.50	34.83	+16.67		Tippera.
+1.0	80.3	92	4.6	5.36		5.04		4.07		15.64			47.27				Mymensingh.
-0.5	81.5	87	7.0	0.70		2.12		3.68		7.14			23.81		Purnea.	
-1.1	80.4	91	9.6	1.07	1.79	3.30	4.50	3.82	7.39	9.25	-1.96	39.33	26.32	+13.01		Bhagalpur.
-1.7	80.0	94	8.1	1.93		2.90		3.71		9.04			29.48				Darbhanga.
-1.5	80.4	91	8.0	1.47		2.80		3.04		8.91			31.06		Muzaffarpur.	
-0.1	82.0	88	3.7	1.68		3.28		3.37		10.96			27.43			Champanan.
-1.3	82.9	86	8.6	1.65	2.07	2.11	4.00	3.12	15.95	7.42	+8.53	25.96	17.31	+8.65			Saran.
-1.0	83.0	87	0.4	3.23		1.97		2.11		8.15			17.40		Shahabad.	
-	82.3	89	6.9	2.24	2.78	2.04	4.33	2.44	11.70	8.08	+3.62	20.88	16.79	+3.50		Jaya.
-0.5	83.4	86	6.6	5.57		1.85		2.19		8.81			17.93				Patna.
-1.7	82.1	90	8.6	2.54		2.02		2.43		8.08			15.47		Monahyr.	
-3.4	79.6	92	5.9	5.83												Sonthal Parganas.
-2.9	80.5	93	9.3	4.77		2.23		2.91		7.40			13.11				Hazaribagh.
-1.8	82.4	90	6.6	7.08											Lohardaga.	
-3.0	79.7	98	6.0	6.20		2.27		2.88		7.71			14.38			Palamau.
-2.0	82.8	87	9.0	3.00	3.20	1.91	5.25	2.61	13.33	7.63	+5.60	24.81	16.03	+9.78			Singbhum.
					2.09	2.17	3.07	3.03	12.40	7.55	+4.85	23.50	15.26	+8.33	Assam.	
-1.4	81.1	87	6.4	1.31	3.37	2.48	4.83	3.78	13.63	8.52	+4.61		19.55			Singbhum.
-2.4	74.7	92	10.0	12.97		2.64		3.95		8.97			18.67				Mamhauz.
-1.3	74.0	81	7.0	2.67		2.70		3.06		8.33			15.06		Assam.	
						2.20		3.42		8.33						Assam.
-0.9	70.4	90	8.3	4.34	4.34	3.68	6.00	3.55	6.33	8.82	-2.49	30.40	10.63	+19.57			Assam.
					8.69	2.05	5.50	4.00	14.09	8.10	+0.50	35.13	17.58	+21.55	Assam.	
																Assam.
-1.2	80.1	92	8.1	3.76												
-1.9	80.0	80	8.1	2.25											Assam.	
-1.5	70.5	91	9.3	8.00												Assam.

for the last ten years. The variations are *negative* when the mean for the week is less than the corresponding normal mean, and *positive* when greater. The numbers denoting cloud amount represents the part of the sky covered the whole sky being denoted by 10. Under the head District observations of the period in question during the past ten years. The means of the district are the unnormal average of the rainfall returned received in the which at least a tenth of an inch fell.







**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSER-  
VATIONS TAKEN IN ASSAM, FOR THE WEEK ENDING 8 A.M.,  
SATURDAY, THE 22<sup>ND</sup> OF JULY 1893.**

At the close of the previous week a very shallow barometric depression existed in the north of the Bay, which gave rise to a series of small local storms over the southern districts, which were accompanied by rather heavy rain. On the 16th instant, or the first day of the present week, pressure increased moderately in the north of the Bay and in East Bengal and Assam, and the feeble low pressure area apparently moved inland from the Bay in a north-westerly direction. On this day the distribution of pressure over the province was nearly normal, except that pressure was low in Chota Nagpur and Western Bengal, and the monsoon current blowing was also fairly normal, though winds were a little more easterly than usual, the more pronounced easterly direction being probably produced by the low pressure in the west of the province. With these conditions general rain was reported on the 16th in all districts, the rainfall being decidedly heavy in parts of Chota Nagpur and South-West Bengal. On the 17th a further increase of pressure had occurred, and the feeble area of low pressure had again advanced in a north-westerly direction and was well to the west of Chota Nagpur. General rain continued over the province, the rainfall being again heavy at many of the western stations. On the 18th the pressure changes were small, and the feeble area of low pressure had quite ceased to affect the province. Rainfall continued general, and the falls were still heavy in the western districts. On the 19th pressure was increasing at the western stations, while winds were becoming rather westerly over this area, but on the other hand pressure continued to fall over the centre and east of the province, where winds were still south-easterly. The westerly winds just alluded to were probably an indication of the strengthening of the Bombay branch of the monsoon current, which was beginning to advance across Central India and to interact with the Bengal branch over the western districts of the province, and as a result of this interaction very heavy rain began to fall in Chota Nagpur and Bihar, while lighter general rain fell over the remainder of the province. The wave of increasing pressure extended over the greater part of the province on the 20th, and only a few stations in North-East Bengal reported a decrease. The westerly winds also forced their way further and extended over South Bihar, Chota Nagpur, Orissa and parts of South-West Bengal. The area of interaction between the two wind systems therefore also advanced in an easterly direction, and heavy rain fell in parts of Orissa, South-West Bengal and Bihar as well as in Chota Nagpur, the remainder of the province receiving lighter rain. On the 21st the westerly wind current made little progress in its advance, and the conditions of rainfall remained almost the same as on the 20th, while pressure was generally falling slowly. On the 22nd, however, a further extension of the westerly winds took place accompanied by a very decided increase of pressure, and winds became south-westerly over the greater part of the province, while a distinct area of comparatively high pressure was establishing itself over the south-western districts. With this further advance, the area of interaction of the winds and the accompanying heavy rainfall were shifted towards the east and north of the province, and rainfall became light in the western and south-western districts. Hence it will be seen that conditions during the week have been favourable for heavy rain in the west and south-west of the province, except in Orissa, while rainfall has been generally lighter elsewhere, and, compared with the normal for the week, very heavy rain has been received in Chota Nagpur and South Bihar, and moderately heavy rain in South-West Bengal and North Bihar, but all other divisions show defective falls.

*Pressure* has been increasing fairly steadily during the week, and hence the mean pressure now shows a distinct excess above the normal, the average excess equalling about 0·03 inch, though on the last day of the week the excess ranged from about 0·02 inch in the north of the province to 0·08 inch in Orissa.

*Temperature.*—Owing to the continued heaviness of the rainfall the mean temperature for the week has again been in defect of the normal, the defect ranging from 2·4° in South Bihar to 0·6° in Orissa, while the mean defect for Bengal has been 1·2°. In Assam the defect has equalled 1·5°.

*Rainfall.*—Compared with the normal for the week, there has been an excess fall of four inches in Chota Nagpur, an excess of 1·6 inches in South Bihar, and of about half an inch in South-West Bengal. The fall in North Bihar has been slightly more than usual, but in the remaining districts defects have been registered, the defects ranging from four-fifths of an inch in North Bengal to an inch and a third in Orissa. The actual average divisional falls have varied from nearly seven inches in Chota Nagpur to an inch and two-thirds in Orissa. The number of rainy days during the week has indeed been rather largely in excess of the normal in all districts except Orissa. In all districts except Orissa rain has fallen on four or five days during the week, but in Orissa the falls have occurred on less than two days.

Some exceptionally heavy falls are reported—Jehanabad in the Gaya district has received 15·71 inches during the week; Hazaribagh Burhi, Gobindpur, and Raghunathpur falls of from 10 to 15 inches; Balasore, Satkhira, Mankur, Jalpaiguri, Patuakhali, Rajouli, Pakri Barawan, Bikram, Shaikpura, Ohahai Bamda, Giridi, Karagdiha, Kalikapur, and Purulia falls of about 7 inches and upwards, while very numerous stations have received four and five inches.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 24th of July 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.						RAINFALL.									
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.		Since 1st of month.		Since 16th of May 1893.		
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.
Orissa	92.2	75.7	87.0	78.3	83.0	-0.5	1.67	2.98	-1.31	1.75	3.55	-1.80	5.27	8.83	27.83	10.30
South-West Bengal	91.7	75.8	87.6	78.5	83.1	-1.2	2.87	2.45	+0.42	5.04	3.59	+1.45	8.22	7.80	34.94	20.53
North Bengal	90.1	76.1	88.3	78.0	83.1	-0.9	2.02	2.82	-0.80	4.00	3.22	+0.78	10.30	10.22	38.74	33.81
East Bengal	89.8	73.1	85.5	77.3	81.5	-0.7	2.30	3.51	-1.21	4.50	4.10	+0.40	11.61	10.85	47.56	33.69
North Bihar	92.2	70.5	89.4	79.2	84.3	-0.9	2.25	2.23	+0.03	3.72	2.08	+1.06	14.83	8.71	24.40	18.95
South Bihar	91.4	73.0	86.9	78.0	82.5	-2.4	3.84	2.23	+1.61	5.23	3.09	+2.10	13.59	7.74	24.75	15.37
Chota Nagpur	90.4	69.4	84.0	73.3	78.7	-1.5	6.68	2.71	+3.97	5.71	3.88	+1.83	13.11	8.66	32.11	18.19
Assam	92.1	75.3	88.0	77.5	82.8	-1.5										

\* Daltonganj not included.

METEOROLOGICAL OFFICE, BENGAL,  
The 25th July 1893.

A. PEDLER,  
Meteorological Reporter to the Govt. of Bengal.

### Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 16th to 22nd July 1893.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.						HYGROMETRY.			Rainfall, past 24 hours
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
July	16th	29.610	82.0	85.0	7.0	78.0	81.6	79.5	.982	78.7	91	0.75
"	17th	.662	82.7	88.0	10.7	77.3	81.1	79.5	.988	78.9	93	0.16
"	18th	.588	80.4	83.9	7.1	76.8	83.6	81.5	1.048	80.7	90	1.02
"	19th	.556	81.9	85.9	8.1	77.8	81.6	80.5	1.028	80.1	96	0.35
"	20th	.574	82.4	87.0	9.2	77.8	84.4	82.0	1.060	81.0	89	0.14
"	21st	.580	83.7	89.0	10.7	78.3	86.6	82.0	1.032	80.2	82	1.27
"	22nd	.620	86.1	92.0	11.9	80.1	87.6	83.3	1.083	81.7	83	0.63

The mean 10 A.M. pressure of the seven days ... .. Inches.  
29.599

The mean temperature of the seven days ... .. 82.7

The extreme variation of temperature ... .. 15.2

The maximum temperature ... .. 92.0

The mean 10 A.M. relative humidity of the seven days ... .. %  
89

The total fall of rain from 16th to 22nd July 1893 ... .. Inches.  
4.32

The daily mean temperatures are the crude means of maximum and minimum temperatures.

METEOROLOGICAL OFFICE, INDIA,  
The 24th July 1893.

C. LITTLE,  
For Meteorological Reporter to the Govt. of India.



Results of the Meteorological Observations taken at the Allpore Observatory from  
16th to 22nd July 1893.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
July	16th	153.3	2.3	Inches. 29.549	82.0	85.0	7.3	77.7	79.5	0.974	78.4	89	SSE, S and calm...	66	0.06	Chiefly cloudy, o, g, d.
"	17th	139.6	1.0	571	81.5	85.0	7.8	77.2	79.5	.983	78.7	91	SSE and S ...	58	0.66	Chiefly cloudy, o, g, d, p.
"	18th	109.3	Nil	561	81.7	88.6	6.9	76.7	79.8	.995	79.1	92	SSE and calm ...	38	0.32	Cloudy, o, g, d, p. t.
"	19th	132.8	0.7	530	81.5	84.1	5.9	78.2	79.8	.995	79.1	93	SW, SSE and calm	49	0.87	Chiefly cloudy, o, g, d, p.
"	20th	143.5	2.2	553	82.2	85.6	7.9	77.7	78.9	.945	77.5	86	SSW and calm ...	66	0.91	Chiefly cloudy, o, g, d, p, t.
"	21st	149.2	5.8	559	84.3	87.9	9.5	78.4	79.3	.935	77.2	79	SW and SSW ...	169	0.54	Partially cloudy, o, g, d, p.
"	22nd	148.5	5.2	600	85.0	89.6	8.5	81.1	80.6	.986	78.8	81	SSW and SW ...	169	0.08	Partially cloudy, o, p.

The mean pressure of the seven days ...	Inches. 29.560
The average pressure of the corresponding period for 24 years, Surveyor-General's Office ...	29.509
The total number of hours of bright sunshine ...	Hours. 17.2
The maximum possible number of hours of sunshine ...	93.1
The mean temperature of the seven days ...	82.6
The average temperature of the corresponding period for 24 years, Surveyor-General's Office ...	83.4
The extreme variation of temperature ...	12.9
The maximum temperature ...	89.6
The highest velocity of the wind in one hour ...	Miles. 13
The highest pressure of wind on one square foot ...	lbs. ?
The mean relative humidity ...	87
The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office ...	86
The total fall of rain from 16th to 22nd July 1893 ...	Inches. 2.97
The average fall of the corresponding period for 24 years, Surveyor-General's Office ...	2.60
The total fall from 1st January to 22nd July 1893 ...	56.67
The average fall of the corresponding period for 24 years, Surveyor-General's Office ...	30.11

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o, overcast; g, gloomy; d, drizzling rain; p, passing temporary showers; t, thunder;

## IRRIGATION DEPARTMENT,—BENGAL.

Statement showing heights over mean sea-level and low-water in the Rivers Ganges, Bhagirathi, Jalangi, and Brahmaputra, for the month of June 1893.

DATE.	RIVER GANGES.												RIVER BRAHMAPUTRA.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	Mirzapur.				Benares.				Raxar.					Dinapore.				Monghyr.				Sahibganj.				Rampur Boalia.				Goalundo.				Berhampore.				Sarruganj.				Gowhatty.																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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CALCUTTA,

The 21st July 1893.

G. C. MACONCHY,

Under-Secy. to the Govt. of Bengal.

## EASTERN BENGAL STATE RAILWAY.

*Abstract of principal commodities carried over the Eastern Bengal State Railway during the month of April 1893, as compared with the same month of the previous year.*

STAPLES.	1893.		1892.		Total.		Increase.	Decrease.
	Up.	Down.	Up.	Down.	1893.	1892.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Coal ... ..	3,248	19,537	3,504	14,600	27,072*	28,452*	.....	780
Cotton, raw ... ..	16	260	1	719	208	710	.....	493
Cotton twist and yarn—								
1.—European ... ..								
2.—Indian ... ..								
Cotton piece-goods—								
1.—European—								
a.—In bales and bundles ... ..	2,350	135	3,156	153	2,485	3,300	.....	824
b.—In boxes ... ..								
2.—Indian—								
a.—In bales and bundles ... ..								
b.—In boxes ... ..								
Grains—								
3.—Rice ... ..	1,810	4,664	5,310	1,042	6,474	6,332	122	.....
5.—Others ... ..	1,302	7,402	2,170	5,257	8,704	7,433	1,271	.....
Hides and skins—								
1.—Hides of cattle—								
a.—Dressed ... ..								
b.—Undressed ... ..								
2.—Skins of sheep, &c.—	2	622	0	570	624	576	48	.....
a.—Dressed ... ..								
b.—Undressed ... ..								
Jute—								
1.—Raw—								
a.—Screwed ... ..		1,430	.....	941	1,430	941	489	.....
b.—Unscrewed ... ..		4,266	6	811	4,266	817	3,449	.....
2.—Gunny bags and cloth ... ..	637	1,244	298	885	1,931	1,183	748	.....
Metals—								
1.—Copper, unwrought ... ..								
2.—Brass, unwrought ... ..								
3.—Brass and copper, wrought ... ..								
4.—Iron ... ..	1,188	222	1,401	75	1,410	1,506	.....	156
5.—Tin ... ..								
6.—Others ... ..								
Oils—								
2.—Kerosine ... ..	4,567	24	2,083	39	4,591	2,115	2,476	.....
3.—Others ... ..	307	50	515	16	447	331	116	.....
Oil-seeds—								
1.—Lusseed ... ..								
2.—Rape and mustard ... ..								
3.—Til or kongelly ... ..								
4.—Niger ... ..	174	8,733	496	3,538	5,907	4,034	4,873	.....
5.—Castor ... ..								
6.—Poppy ... ..								
7.—Others ... ..								
Provisions—								
3.—Betel-nuts ... ..	257	1,151	124	1,043	1,408	1,167	241	.....
5.—Others ... ..	546	731	543	630	1,277†	1,173†	104	.....
Railway plant and rolling-stock ... ..					19,306	7,159	12,207	.....
Salt ... ..	4,252	12	4,672	125	4,264	4,707	.....	533
Sugar—								
1.—Drained ... ..								
2.—Undrained ... ..	403	2,598	1,097	1,651	3,001	2,748	253	.....
Tea—								
1.—Foreign ... ..								
2.—Indian ... ..		221	.....	243	221	243	.....	22
Wood—								
1.—Timber ... ..	362	218	711	317	580	1,028	.....	448
2.—Firewood ... ..	1,040	83	1,324	.....	1,173	1,324	.....	151
Tobacco ... ..	245	2,228	127	2,039	2,473	2,706	.....	293
All other articles of merchandise—								
1.—Unmanufactured ... ..	5,235	4,145	4,838	3,534	9,380	8,372	1,008	.....
2.—Manufactured ... ..								
Hay, straw, and wooloo (C. & S.-E. Sections) ... ..	1,384	.....	861	.....	1,384	861	523	.....
Total ... ..	29,615	69,966	33,199	39,820	113,734	89,466	27,928	3,669

\* Includes 4,887 tons and 10,288 tons of coal during 1893 and 1892, respectively, carried for Revenue, for which no "Up" and "Down" register maintained.

† Railway plant and rolling-stock, 19,306 tons and 7,159 tons for the years 1893 and 1892, respectively, for which no "Up" and "Down" register maintained.

*Statement of principal commodities carried over the Eastern Bengal State Railway during the month of April 1893.*

## INCREASES.

Grains ... .. 1,271  
 Chuadanga, Kishanganj Bazar, Ramnagar, Forbesganj and Bhowanipore show increases under this head, due to good local crops and to a brisk demand in the Calcutta market.  
 Jute, unscrewed ... .. 3,449  
 The principal increases are in despatches from Myensing, Goalundo, Sirajganj, and Kushtia.  
 The demand was in excess of the supply of jute of marketable quality.

Kerosine oil ... .. 2,476  
 Due to the prohibition of carriage by boat within certain limits of the port of Calcutta.  
 Oil-seeds ... .. 4,873  
 The increases are in despatches chiefly from Sonali, Kasba, Forbesganj, and Goalundo, due to good crop in those districts and brisk demand in Calcutta markets.  
 Railway plant and rolling-stock ... .. 12,207  
 For repairs and renewals.

## DECREASES.

Coal ... .. 780  
 Ordinary fluctuation.  
 Cotton piece-goods ... .. 824  
 Ordinary fluctuation.

Salt ... .. 533  
 Chiefly in despatches from Chitpore.

CALCUTTA, the 19th July 1893.

JAMES SHAW,  
 for Examiner of Accounts.

## BENGAL CENTRAL RAILWAY.

*Abstract of principal commodities carried over the Bengal Central Railway during the month of April 1893, as compared with the same month of the previous year.*

STAPLES.	1893.		1892.		TOTAL.		Increase.	Decrease.
	Up.	Down.	Up.	Down.	1893.	1892.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Coal	1,167	...	906	.....	1,537*	1,304*	233	.....
Cotton twist and yarn—								
1.—European	...	...	...	...	...	...	...	...
2.—Indian	...	...	...	...	...	...	...	...
Cotton piece goods—								
1.—European—								
a.—In bales and bundles	877	4	322	.....	381	322	59	.....
b.—In boxes	...	...	...	...	...	...	...	...
2.—Indian—								
a.—In bales and bundles	...	...	...	...	...	...	...	...
b.—In boxes	...	...	...	...	...	...	...	...
Grains—								
2.—Rice	21	133	15	200	154	305	...	151
b.—Others	47	127	55	262	974	317	657	.....
Hides and skins—								
1.—Hides of cattle—								
a.—Dressed	...	28	.....	38	24	38	...	10
b.—Undressed	...	...	...	...	...	...	...	...
2.—Skins of sheep, &c.—	...	...	...	...	...	...	...	...
a.—Dressed	...	...	...	...	...	...	...	...
b.—Undressed	...	...	...	...	...	...	...	...
Jute—								
1.—Raw—		135	...	1	135	1	134	...
b.—Unscrowed	26	1	19	.....	26	19	7	.....
2.—Gunny bags and cloth	...	...	...	...	...	...	...	...
Metals—								
1.—Copper, unwrought	...	...	...	...	...	...	...	...
2.—Brass, unwrought	...	...	...	...	...	...	...	...
3.—Brass and copper, wrought	68	23	169	8	81	174	...	93
4.—Iron	...	...	...	...	...	...	...	...
5.—Tin	...	...	...	...	...	...	...	...
6.—Others	...	...	...	...	...	...	...	...
Oils—								
2.—Kerosine	127	...	80	...	127	80	28	...
3.—Others	194	...	158	...	104	158	36	...
Oil-seeds—								
1.—Lined	...	...	...	...	...	...	...	...
2.—Rape and mustard	...	...	...	...	...	...	...	...
3.—Til or gingelly	146	412	164	355	558	619	30	.....
4.—Niger	...	...	...	...	...	...	...	...
5.—Castor	...	...	...	...	...	...	...	...
6.—Poppy	...	...	...	...	...	...	...	...
7.—Others	...	...	...	...	...	...	...	...
Provisions—								
2.—Betel-nuts	...	1,188	...	1,060	1,188	1,060	122	.....
3.—Others	159	169	61	146	328	207	121	...
Railway plant and rolling-stock	342	...	283	...	115†	488†	...	373
Salt	...	...	...	...	342	286	56	.....
Sugar—								
1.—Drained	32	2,234	55	1,144	2,270	1,109	1,071	...
2.—Undrained	104	122	75	52	226	157	69	...
Tobacco	...	...	...	...	...	...	...	...
All other articles of merchandise—								
1.—Unmanufactured	1,438	641	1,615	514	2,079	2,129	...	50
2.—Manufactured	...	...	...	...	...	...	...	...
Total	4,237	6,021	8,693	3,900	10,743	8,788	2,692	677

\* Includes 398 tons and 370 tons of coal during 1892 and 1893, respectively, carried for Revenue, for which no "Up" and "Down" register maintained.

† Railway plant and rolling-stock 488 tons and 115 tons for the years 1892 and 1893, respectively, for which no "Up" and "Down" register maintained.

*Statement of principal commodities carried over the Bengal Central Railway during the month of April 1893.*

INCREASES.		Tons.	
Grains	657	Sugar	1,071
Chiefly from Jhikargachi and Khulna. Due to brisk demand in the Calcutta market.		Jhikargachi contributed nearly the whole of this increase. Prices in the Calcutta market were high.	

JAMES SHAW,  
for Examiner of Accounts.

CALCUTTA, the 19th July 1893.

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 15th July 1893, on 1,610½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	*203,704	Rs. A. P. 2,87,819 6 0	Mds. S. 20,16,469 20	Rs. A. P. 4,67,864 5 0	Rs. A. P. 16,877 1 0	Rs. A. P. 7,72,280 12 0	74,453½	95,220½	169,684½
Or per mile of railway ...	.....	178 11 5	.....	290 8 2	10 4 8	479 8 8	.....	.....	.....
For previous 1½ week of half-year ...	387,384	4,13,146 7 0	24,08,946 20	5,43,066 9 0	19,856 2 0	9,78,090 2 0	88,081	118,422½	206,503½
Total for 2½ weeks ...	651,038	7,00,965 13 0	24,25,430 0	10,10,960 14 0	*36,433 5 0	17,48,389 14 0	162,539½	213,652	376,191½
COMPARISON.									
Total for corresponding week of previous year ...	541,754	2,34,106 3 9	22,94,267 30	4,78,356 14 6	15,701 3 3	7,28,163 5 6	73,901	94,151	168,112
Per mile of railway corresponding week of previous year ...	.....	145 5 9	.....	297 0 5	9 12 0	468 2 2	.....	.....	.....
Total for corresponding 2½ weeks of previous year ...	624,564½	5,58,659 1 3	52,52,017 20	11,27,527 3 8	38,661 0 3	17,22,846 5 4	167,340	227,843	395,183

\* The increase is partly due to "Pooree" pilgrims and partly to "Ruth Jatra" festival.

## TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 15th July 1893, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	17,019	Rs. A. P. 4,151 3 0	Mds. S. 6,630 20	Rs. A. P. 208 14 0	Rs. A. P. 8 0 0	Rs. A. P. 4,368 1 0	685	83	908
Or per mile of railway ...	.....	180 9 2	.....	9 6 2	0 5 9	196 6 1	.....	.....	.....
For previous 1½ week of half-year ...	19,362	4,715 15 0	4,105 30	178 6 0	16 0 0	4,910 5 0	1,028	94	1,122
Total for 2½ weeks ...	36,381	8,867 2 0	10,736 10	337 4 0	24 0 0	9,278 6 0	1,913	177	2,090
COMPARISON.									
Total for corresponding week of previous year ...	20,428	4,833 8 0	5,155 10	193 12 0	11 4 6	5,038 2 6	996	61	1,056
Per mile of railway corresponding week of previous year ...	.....	217 3 9	.....	8 11 4	0 8 2	226 7 3	.....	.....	.....
Total for corresponding 2½ weeks of previous year ...	60,580	14,503 0 1	15,795 0	582 12 0	19 11 0	15,105 7 1	2,171	139	2,310

## DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for week ended 15th July 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	20,601	Rs. A. P. 13,626 1 0	Mds. S. 43,908 30	Rs. A. P. 6,296 14 0	Rs. A. P. 34 0 0	Rs. A. P. 19,968 15 0	6,079½	2,736	8,875½
Or per mile of railway ...	.....	84 0 9	.....	39 0 5	0 3 6	123 10 7	.....	.....	.....
For previous 1½ week of half-year ...	22,095	14,910 14 0	43,703 20	6,671 2 0	40 0 0	21,622 0 0	7,027½	3,202½	10,230
Total for 2½ weeks ...	43,596	28,536 15 0	87,612 10	12,970 0 0	74 0 0	41,590 15 0	13,107	5,938½	19,106½
COMPARISON.									
Total for corresponding week of previous year ...	17,889½	12,175 14 11	38,717 20	5,861 11 0	23 1 0	18,060 10 11	6,478	2,618	9,096
Per mile of railway corresponding week of previous year ...	.....	75 7 0	.....	36 5 1	0 2 4	111 14 5	.....	.....	.....
Total for corresponding 2½ weeks of previous year ...	39,233	26,095 0 1	91,176 30	13,703 9 0	80 1 9	39,879 0 10	14,479	6,078	20,557

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K.-D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for the week ended 15th July 1893, on 777 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	157,680	65,200 0 0	4,74,500 0	75,180 0 0	10,000 0 0	1,51,070 0 0	27,738	23,068	50,806
Or per mile of railway ...	203	84 0 0	611 0	97 0 0	*2 0 0	*183 0 0	.....	.....	.....
For previous 1 week of half-year ...	230,730	80,500 0 0	7,24,000 0	96,050 0 0	12,280 0 0	1,08,430 0 0	31,075	27,603	58,678
Total for 2 weeks ...	388,410	1,45,700 0 0	11,98,500 0	1,71,230 0 0	22,280 0 0	3,40,500 0 0	58,813	50,701	109,514
COMPARISON.									
Total for corresponding week of previous year ...	135,158	54,800 0 0	3,96,309 0	74,192 0 0	11,202 0 0	1,40,254 0 0	27,520	27,000	54,520
Per mile of railway corresponding week of previous year ...	174	71 0 0	510 0	95 0 0	*3 0 0	*169 0 0	.....	.....	.....
Total to corresponding date of previous year ...	373,985	1,45,701 0 0	9,98,884 0	1,62,226 0 0	25,487 0 0	3,33,504 0 0	62,874	61,666	124,540

\* Excluding steamer earnings.

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for the week ended 15th July 1893, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	29,500	9,670 0 0	48,580 0	2,950 0 0	40 0 0	12,660 0 0	4,102	1,570	5,672
Or per mile of railway ...	230	77 0 0	389 0	24 0 0	.....	101 0 0	.....	.....	.....
For previous 1 week of half-year ...	42,200	13,830 0 0	41,330 0	3,020 0 0	80 0 0	16,930 0 0	4,700	1,831	6,531
Total for 2 weeks ...	71,700	23,500 0 0	89,910 0	5,970 0 0	120 0 0	29,590 0 0	8,802	3,401	12,193
COMPARISON.									
Total for corresponding week of previous year ...	28,789	8,735 0 0	35,616 0	2,313 0 0	200 0 0	11,257 0 0	4,102	1,570	5,672
Per mile of railway corresponding week of previous year ...	230	70 0 0	285 0	18 0 0	2 0 0	90 0 0	.....	.....	.....
Total to corresponding date of previous year ...	77,492	22,572 0 0	80,061 0	5,190 0 0	270 0 0	28,002 0 0	9,399	3,601	12,000

## DACCA STATE RAILWAY.

Approximate Return of Traffic for the week ended 15th July 1893, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	17,770	4,800 0 0	10,500 0	880 0 0	60 0 0	5,740 0 0	2,487	737	3,224
Or per mile of railway ...	207	56 0 0	122 0	10 0 0	1 0 0	67 0 0	.....	.....	.....
For previous 1 week of half-year ...	19,890	5,500 0 0	12,450 0	1,030 0 0	130 0 0	6,660 0 0	2,851	843	3,694
Total for 2 weeks ...	37,660	10,300 0 0	22,950 0	1,910 0 0	190 0 0	12,400 0 0	5,338	1,580	6,918
COMPARISON.									
Total for corresponding week of previous year ...	14,040	4,292 0 0	9,122 0	615 0 0	56 0 0	4,903 0 0	2,589	645	3,234
Per mile of railway corresponding week of previous year ...	170	50 0 0	106 0	7 0 0	1 0 0	58 0 0	.....	.....	.....
Total to corresponding date of previous year ...	34,131	10,562 0 0	22,253 0	1,628 0 0	173 0 0	12,363 0 0	6,019	1,480	7,508

## BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIRHUT STATE RAILWAY.)

*Approximate return of traffic for the first 8 days of July 1893, on 756 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs.	Mds.	Rs.	Rs.	Rs.			
Total traffic for the period on 756 miles open ... ..	110,320	46,650	2,95,420	41,260	12,600	1,00,510	14,904	18,092	33,596
Or per mile of railway ... ..	145'93	61'70	390'77	54'58	16'67	132'95	.....	.....	.....
For previous weeks of half-year ... ..	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total for 1½ weeks ... ..	110,320	46,650	2,95,420	41,260	12,600	1,00,510	14,904	18,092	33,596
COMPARISON.									
Total for corresponding period of previous year on 756 miles open ... ..	107,892	38,128	3,78,915	42,323	12,442	92,893	16,310	22,497	38,807
Per mile of corresponding week of previous year ... ..	142'89	50'50	501'87	56'06	16'48	123'04	.....	.....	.....
Total to corresponding date of previous year ... ..	107,892	38,128	3,78,915	42,323	12,442	92,893	16,310	22,497	38,807

## BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIRHUT STATE RAILWAY.)

*Approximate Return of Traffic for the week ending 15th July 1893, on 756 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs.	Mds.	Rs.	Rs.	Rs.			
Total traffic for the period on 756 miles open ... ..	91,900	36,160	2,92,130	47,150	12,550	95,860	13,046	15,574	28,620
Or per mile of railway ... ..	123'65	47'83	386'42	62'37	16'00	126'80	.....	.....	.....
For previous 1½ weeks of half-year ... ..	110,320	46,650	2,95,420	41,260	12,600	1,00,510	14,904	18,092	33,596
Total for 2½ weeks ... ..	206,310	82,810	5,87,550	88,410	25,150	1,96,370	27,950	34,266	62,316
COMPARISON.									
Total for corresponding period of previous year on 756 miles open ... ..	90,909	29,013	2,82,360	35,615	6,465	71,093	13,742	15,876	29,618
Per mile of corresponding week of previous year ... ..	120'41	38'13	373'97	47'17	8'56	94'16	.....	.....	.....
Total to corresponding date of previous year ... ..	198,791	67,141	6,61,305	77,933	18,907	1,63,086	30,052	38,373	68,425

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

	Rs.	A.	P.
Approximate earnings for the first 8 days of July 1893 ... ..	13,558	0	0
Corresponding period of 1892 ... ..	13,145	0	0
Increase ... ..	413	0	0
Receipts per mile for the first 8 days of July 1893 ... ..	265	13	6
Corresponding period of 1892 ... ..	267	12	0
Increase ... ..	8	1	6
Receipts from 1st to 8th July 1893 ... ..	13,558	0	0
Corresponding period of 1892 ... ..	13,145	0	0
Increase ... ..	413	0	0

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

	Rs.	A.	P.
Approximate earnings for the week ending 15th July 1893 ... ..	12,480	0	0
Corresponding period of 1892 ... ..	9,396	0	0
Increase ... ..	3,084	0	0
Receipts per mile for the week ending 15th July 1893 ... ..	244	11	4
Corresponding period of 1892 ... ..	184	4	0
Increase ... ..	60	7	4
Receipts from 1st to 15th July 1893 ... ..	26,038	0	0
Corresponding period of 1892 ... ..	22,542	0	0
Increase ... ..	3,496	0	0







# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, AUGUST 2, 1893.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees • per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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*Abstract of the Proceedings of the Council of the Lieutenant-Governor of Bengal, assembled for the purpose of making Laws and Regulations under the provisions of the Indian Councils Acts, 1861 and 1892.*

THE Council met at the Council Chamber on Saturday the 22nd July, 1893.

### Present:

The HON'BLE SIR ANTONY PATRICK MACDONNELL, K.C.S.I., Offg. Lieutenant-Governor of Bengal, *presiding*.  
 The HON'BLE SIR CHARLES PAUL, K.C.I.E., *Advocate-General*.  
 The HON'BLE T. T. ALLEN.  
 The HON'BLE H. J. S. COTTON, C.S.I.  
 The HON'BLE H. H. RISLEY, C.I.E.  
 The HON'BLE GONFESH CHUNDER CHUNDER.  
 The HON'BLE D. R. LYALL, C.S.I.  
 The HON'BLE J. A. BOURDILLON.  
 The HON'BLE MAULVI ABDUL JUBBAR KHAN BAHADUR.  
 The HON'BLE F. R. S. COLLIER.  
 The HON'BLE MAULVI SYED FAZL IMAM KHAN BAHADUR.  
 The HON'BLE MAHARAJA RAVANESHWAR PRASAD SING BAHADUR OF GIDHOUR.  
 The HON'BLE SURENDRANATH BANERJEE.  
 The HON'BLE L. GHOSE.  
 The HON'BLE MAULVI SERAJUL ISLAM KHAN BAHADUR.  
 The HON'BLE P. PLAYFAIR.  
 The HON'BLE J. G. WOMACK.

## NEW MEMBERS.

THE HON'BLE MESSRS. LYALL and BOURDILLON, the HON'BLE MAULVI ABDUL JUBBAR KHAN BAHADUR, the HON'BLE MR. COLLIER, the HON'BLE BABU SURENDRANATH BANERJEE, the HON'BLE MR. GHOSE, the HON'BLE MAULVI SERAJUL ISLAM KHAN BAHADUR, and the HON'BLE MESSRS. PLAYFAIR and WOMACK took their seats in Council.

## THE PRESIDENT'S ADDRESS.

THE HON'BLE THE PRESIDENT said:—"Gentlemen—Before we proceed to the business for which we are assembled, I wish to offer a few words of cordial welcome to the hon'ble members who appear in this chamber for the first time, and to congratulate the Council on its enlarged functions and wider sphere of usefulness. It is now 300 years, all but seven, since the Charter of Queen Elizabeth conferred on the Company of Merchants trading to the East Indies the power 'to make, ordain and constitute such and so many reasonable laws' as their enterprise required; and since then our legislative power in India has undergone various vicissitudes. Remaining in practical abeyance in the 17th century, it was not till the latter half of the 18th century that it was brought into active operation. You are all familiar with the difficulties to which the subjection of the legislative power to the veto of the judicial authorities led in the time of Mr. Hastings, and with the struggles which in the end of the last century resulted in the abolition of the veto. You are acquainted with the circumstances under which, in 1813, the powers of the Legislative Councils of all three Presidencies were enlarged and brought more into touch with the Government in England; and you know that the complications produced by the exercise of these extended powers in the Madras and Bombay Councils led to their disfranchisement in 1834, and to the concentration of all legislative authority in the Council of the Governor General. And you view, with perhaps something of an antiquarian interest, the introduction in 1853 of the judicial element into the Council, in the persons of two Judges of the Calcutta Supreme Court and the first faint glimmering of representation in the official nominees of the Governments of Madras, Bombay, Bengal and Agra. These various stages led up to the Act of 1861, by which a long step was taken in the direction of that liberal policy of which the Act of 1892 is a fuller realisation.

"Until 1861, then, Indian Legislative Councils were practically the executive Government acting in a legislative capacity, and according to modern notions that is not often a suitable arrangement. But, judged by practical results, the system on the whole worked well, and our Statute Book, from Lord Cornwallis's days to the days of the Penal Code, is no unworthy monument of the sagacity and the practical statesmanship of our predecessors.

"Thirty years ago, gentlemen, the old order of things had already begun to change, giving way to the new; our educational policy, ever to be associated with the names of Lord Macaulay, Lord Hallifax, and Mr. John Stuart Mill, had begun to take effect, and the change was stimulated by the transfer of the Government from the East India Company to the Crown. An early and expected effect of the extension of English education was the growth of a greater independence of thought on the part of the leaders of native society, and a fuller and freer criticism of the proceedings of Government. The number of Indian gentlemen who became accessible to the influences which swayed public opinion in England, and of those who were indirectly open to the same influence, increased rapidly. The time had come for a closer association of native gentlemen of light and leading with the Government of the country; and the prompt recognition of this fact will ever be connected with the honoured name of Canning.

"The establishment of local Legislative Councils and the addition of the native element brought our legislative system abreast of the public opinion of the day, and the results which have been attained are the best justification of the policy which inspired the Indian Councils Act of 1861. In Bengal, that policy has been entirely successful. No enactment on the long list of Bengal Statutes can be pointed to which was not called for by public necessity, or is

not instinct with the spirit of public duty. And if this be largely due to the broader sympathies and keener sense of responsibility, which are the product of modern times, it must be admitted that it is also due to the beneficial influences exercised by the native members of this Council on the legislation which has taken place.

"Gentlemen, to such an inheritance of honourable tradition you now succeed in peculiarly auspicious circumstances. The desire of the educated and forward sections of Indian society in these Provinces has been expressed in favour of more extended political privileges, and the Government has met that expression of opinion in the way most consonant with constitutional usage and most conducive to solid progress. The various influential public bodies to which the privilege of recommending Members of Council has been entrusted have received their mandate with gratification and have fulfilled it with propriety and self-respect. The very eagerness which other bodies, of less, though still of considerable, influence have exhibited to share in the privilege is proof, if any were wanted, of the value they set upon it. All these considerations invest our meeting to-day with special interest. The occasion is a landmark which will be memorable in the constitutional history of the country. I am confident, gentlemen, that our deliberations will be always worthy of these high auspices, and that we shall ever approach the consideration of the questions with which we may have to deal in no spirit of factious criticism, but with the object of advancing the best interests of the people and maintaining the dignity of the Empire."

#### BENGAL PROVINCIAL SERVICE.

The HON'BLE BABU SURENDRANATH BANERJEE asked :—

What effect has been given to the notification issued in the *Calcutta Gazette* of the 5th April last, announcing that six posts of District and Sessions Judge, four posts of Collector and Magistrate of a district, one post of Junior Secretary to the Board of Revenue, and one post of Under-Secretary to Government and some other subordinate appointments have been thrown open to the Bengal Provincial Service; and how many members of the Provincial Service have been appointed District Judges and Magistrate-Collectors, and if any member of the Provincial Service has been appointed Junior Secretary to the Board of Revenue or Under-Secretary to Government?

The HON'BLE MR. COTTON replied :—

"The effect of the notification published in the *Calcutta Gazette* of the 5th April last is qualified by paragraph 6 of the Resolution of the Government of India, No. 1342 C.Rev., dated the 21st April, 1892, which was published in the *Gazette of India* of the 23rd April, 1892, which declares that until all the existing statutory civil servants are provided for either by promotion or by amalgamation with the new Provincial Service, and until the prior claim of officers of the Civil Service of India and Commissions has been satisfied, the twenty posts referred to in the question cannot be thrown into the general *cadre* of the Provincial Service. There are now ten statutory civilians, of whom one, Mr. Brojendra Kumar Seal, holds the substantive appointment of a District Judge of the 1st grade, four hold the substantive appointment of Joint-Magistrate of the first grade, and five hold the substantive appointment of Joint-Magistrate of the second grade. Of the first grade Joint-Magistrates, three, viz., Mr. Nunda Krishna Bose, Kumar Gopendra Krishna Deb, and Mr. Ambika Churun Sen, are at present officiating as Magistrates and Collectors of districts. None of the statutory civilians, except Mr. Seal, are yet of sufficient standing in the service to be substantively promoted to the grade of District Judge or Magistrate and Collector of a district, but all of them have officiated in such appointments. In addition to these ten officers, there are three ex-statutory civilians who have been transferred to the Bengal Provincial Service. One of these officers, Mr. Umesh Chunder Batabyal, is now officiating as Magistrate and Collector of a district; another, Rai Nundo Kissore Das Bahadur,

is holding a special appointment as District Officer of Angul and the Khond Mahals. The third is still a probationer, as he has not yet passed the departmental examinations. There are thus thirteen officers belonging to the Statutory and Provincial Services who are now holding posts ordinarily held by members of the Civil Service of India, to which the question refers. No member of the Provincial Service has yet been appointed to be Junior Secretary to the Board of Revenue or Under-Secretary to Government."

#### NATIVE ASSISTANT SUPERINTENDENTS OF POLICE.

The HON'BLE BABU SURENDRANATH BANERJEE asked:—

What is the number of Native Inspectors, together with their names, who, since the date of the report of the Public Service Commission, have been appointed to the grade of Assistant Superintendent of Police?

The HON'BLE MR. COTTON replied:—

"The number is two, viz., Babu Ras Behary Biswas, appointed on the 19th January, 1891, and Maulvi Zinnat Hosain Khan appointed on the 23rd June, 1892."

#### THE BENGAL GOVERNMENT'S SUMMER HEAD-QUARTERS.

The HON'BLE MR. GHOSE, in the absence of the HON'BLE MR. BONNERJEE, asked:—

(a) For how many years has Darjeeling been the head-quarters of His Honour the Lieutenant-Governor of Bengal during the hot weather?

(b) What used to be His Honour's hot-weather head-quarters before Darjeeling became such quarters?

(c) Has any additional cost been incurred by reason of Darjeeling becoming such quarters? If so, what has been the additional cost per annum since Darjeeling became such quarters, and from what funds has such additional cost been defrayed?

The HON'BLE MR. BOURDILLON replied:—

"(a) For about 30 years.

"(b) Various places, including Calcutta, Darjeeling, Parasnath Hill and Bhagalpur, at the discretion of the Lieutenant-Governor for the time being.

"(c) Additional cost has been incurred, which is defrayed from the public revenues. I have this morning received an unofficial letter from the Accountant-

formerly accounts of this expenditure were not separately kept. Since 1888-89, however, these charges have been separately recorded, and the figures from that year will be furnished to the hon'ble member."

#### THE LIEUTENANT-GOVERNOR'S TOURS.

The HON'BLE MR. GHOSE, in the absence of the HON'BLE MR. BONNERJEE, asked:—

(a) How many tours did the present permanent Lieutenant-Governor of Bengal undertake from the time he took charge of his office to the time he went away on leave in May last?

(b) From what funds were the expenses of such tours defrayed, and if they were defrayed from the public revenues, what were the amounts of the expenses of each such tour?

The HON'BLE MR. BOURDILLON replied:—

“(a) Fourteen tours.

“(b) The expenses of such tours are defrayed from a lump allowance for tours and miscellaneous expenditure, which is a charge upon the public revenues, and under Article 1275 of the Civil Service Regulations is controlled by the Lieutenant-Governor. Details of the expenditure for each tour cannot be furnished.”

#### THE MYMENSINGH CASE.

The HON'BLE MR. GHOSE, in the absence of the HON'BLE MR. BONNERJEE, asked:—

(a) Has the attention of His Honour the Officiating Lieutenant-Governor of Bengal been called to the case printed as an appendix to the pamphlet called “Official Prestige *versus* the Liberty of the Subject”?

(b) Did the proceedings as printed in the appendix take place?

(c) Did His Honour approve of the proceedings? If not, will he, if he has not already done so, signify his disapproval to the officers concerned?

The HON'BLE MR. COTTON replied:—

“(a) The attention of the Officiating Lieutenant-Governor has been drawn to the case referred to by the receipt of the pamphlet.

“(b) No official enquiry has been made to ascertain whether the proceedings as printed in the appendix took place.

“(c) The Officiating Lieutenant-Governor expresses no opinion on the report of the proceedings which purport to have taken place eighteen months ago, and in regard to which it was competent for any parties who may have considered themselves aggrieved to seek for their remedy in the proper quarter at the time.”

#### BRITISH SUBJECTS MADE OVER ON WARRANTS TO THE FRENCH POLICE AUTHORITIES.

The HON'BLE MR. GHOSE, in the absence of the HON'BLE MR. BONNERJEE, asked:—

Is His Honour aware that several British subjects are now in prison awaiting trial at Chandernagore who were handed over to the French Police authorities by the British Police without such British subjects being brought before any British Magistrate and without any investigation before such British Magistrate? If not, will he enquire whether the fact mentioned in this question is true or not?

The HON'BLE MR. COTTON replied:—

“The Officiating Lieutenant-Governor believes that the facts stated in this question are correct; the arrests having been made on warrants duly transmitted for execution by the French Government.”

#### MUNICIPAL SANITATION PRIOR TO ACT XXVI OF 1850.

The HON'BLE MR. GHOSE, in the absence of the HON'BLE MR. BONNERJEE, asked:—

(a) Who were the Municipal and Sanitary authorities of the towns of Bengal, except Calcutta and Howrah, at the time Act XXVI of 1850 of the Legislative Council of India was passed?

(b) What steps, if any, did these authorities take for the proper drainage, water-supply or sanitation of the towns in their respective charge?

The HON'BLE MR. BOURDILLON replied :—

“(a) and (b).—It is understood that there were no municipal authorities in the towns of Bengal at the time Act XXVI of 1850 was passed. It is believed that the Magistrate and the Civil Surgeon attended to sanitation so far as was practicable.”

### INSPECTION OF TEA GARDENS.

The HON'BLE BABU SURENDRANATH BANERJEE asked :—

What steps, if any, have been taken by the Government to ensure the efficient inspection of tea-gardens in the Dooars and the proper protection of coolies employed therein, with a view of remedying the evils pointed out by the Hon'ble Judges of the High Court, and published in the newspapers in their appellato decision in the case of *Empress versus George Murray*?

The HON'BLE MR. RISLEY replied :—

“The Commissioner of the Rajshahi Division was officially requested on the 9th instant to submit a full report to the Lieutenant-Governor on the suggestion made in connection with the case referred to in the question by the Hon'ble Judges of the High Court as to the necessity of inspection of tea-gardens in the Dooars. It is to be remembered that the labourers employed in Dooar tea-gardens are free labourers not affected by any Labour Law.”

### BENGAL MUNICIPAL ACT, 1884, AMENDMENT BILL.

The HON'BLE MR. RISLEY said :—“MR. PRESIDENT—Before the motion which stands in my name is put to the Council, I propose with your permission to make a statement, as brief as may be, reviewing the various stages through which the Bill to amend the Bengal Municipal Act of 1884 has passed, and indicating the general line of policy which the Government propose to adopt in respect of some of its more important provisions. It will be remembered that the Bill was introduced into Council on the 16th July last year, and was at once referred to a Select Committee. While in the hands of the Committee, numerous alterations and additions were made in it, some of which involved important questions of principle. For this reason the Committee recommended, in their Preliminary Report of the 25th August, 1892, that the Bill as amended should be republished for general comment, and, together with the opinions received, be again referred to the public before being taken into consideration by the Council. On the 30th August the Bill and the Report of the Committee were accordingly circulated to District Officers, Municipal Commissioners and Public Associations, with a letter explaining more fully the points upon which their opinions were invited. In reply to this circular, a very large mass of literature has been received, which the Select Committee—now somewhat reduced in numbers—have endeavoured to deal with. A revised Bill has been prepared, but since then some important opinions have been received, and for this and other reasons the measure is hardly yet ready to be finally laid before Council. I am confident therefore that I express the views of my colleagues on the Committee when I say that we not only feel that the addition to our number of two elected representatives of Municipal interests will be a source of strength to the Committee, and will add authority to our conclusions, but that we fully realise the advantage we shall derive from discussing the Bill, section by section, with gentlemen who have actual and recent experience of municipal administration. It may further be expected that our deliberations will have the effect of reducing the number of points upon which discussion is likely to arise when the Bill is again laid before Council for the consideration of its clauses.

“Although many of the sections of the Bill have not yet assumed their final form, and the ultimate decision regarding them must depend greatly on the view taken of them by the Select Committee as now to be enlarged, there are some provisions of such importance that it seems desirable to take the present opportunity of stating how it is proposed to deal with them.

"In the first place then, it seems proper that I should make mention of the fact that a recent decision of a Full Bench of the High Court has reversed the decision of the Hon'ble Judges in the case of Mohini Chandra Paul and another against the Municipality of Kushtea. In this case, as was explained in the Statement of Objects and Reasons annexed to the Bill as originally introduced, the High Court held that a notification by the Government of Bengal, dated the 18th March, extending Part VII, Chapter II, of the Bengal Municipal Act V of 1876 to the Municipality of Kushtea, was not a 'notification' within the meaning of section 2 of the Bengal Municipal Act III of 1884, but an 'order,' and that, as that section contains no provision saving all orders made under the former Act, none of the provisions of Part VI of the present Act, corresponding to Part VII, Chapter II of the old Act, were in force in Kushtia or in any other municipality to which they had not been extended by the present Act. The practical meaning of this was that a large number of municipalities found themselves stripped of their legal power to deal with a number of sanitary matters, to regulate buildings, obstructions and encroachments on roads, burial and burning grounds, offensive and dangerous trades, and the like. The difficulty thus created might have been met in two ways—by issuing fresh notifications under the present law or by amending the Act. It was thought better to adopt the latter alternative as being the simplest means of attaining the end in view, while the procedure for issuing fresh notifications is cumbersome and elaborate. At the same time it was decided, at the suggestion of the Government of India, to take the opportunity of making an exhaustive inquiry into the working of the Act with a view to the inclusion of all amendments which experience had shown to be desirable. When this decision was arrived at, the probability that a Full Bench of the High Court might reverse the judgment in the Kushtia case was taken into consideration, and it was held that that event, even if it occurred before the Bill was introduced into Council at all, would not be of itself a reason for abandoning the intention to amend the law. What was contemplated as possible two years ago has now actually happened. A Full Bench of the High Court has overruled the Kushtia case and has restored to the municipalities the legal powers of which they had been for a time denuded. Meanwhile, the Bill has been gathering to itself, as it rolled onward, fresh provisions drawn from the experience of the many critics, official and non-official, who have handled the subject, and it now aims at embodying several important administrative reforms, and at clearing up several practical difficulties regarding which public opinion is sufficiently unanimous, to make it clear that the amendment of the law ought to be proceeded with.

"The sections dealing with the introduction of schemes of water-supply and drainage give effect to a Resolution which was carried, with one dissentient voice, by a representative Conference held at Belvedere about this time last year. The Resolution in question was to the effect that, in the opinion of the Conference, it was expedient that the Local Government should be empowered to require municipalities to undertake projects of drainage and water-supply, it being provided at the same time, on the suggestion of the HON'BLE BARU SURENDRANATH BANERJEE, that each such scheme, with the reasons for compulsory action, should be published in the *Calcutta Gazette*, and opportunity given to the municipalities to show cause against such compulsion. The Government approves of the principle of these sections and proposes to proceed with them subject to certain minor changes, which I shall lay before the Select Committee, having for their object to make more efficient provision for voluntary action on the part of Municipal Commissioners, and for assisting them to get adequate professional supervision for sanctioned projects—a point which recent experience has shown to be one of considerable importance.

"Another important question which has received careful consideration is that of the appointment of an assessor. While adhering to the principle embodied in sections 32—39 of the Bill, the essential provisions of which have been adapted from English Municipal law, the Government is prepared to admit that there may be room for modification of details, and that there is much to be said for the opinion that the sections as drafted go too far in that they render it compulsory for all municipalities, small and great, well managed and ill managed, to provide themselves with an assessor. If then it is desired to make this portion of the

law more elastic and more readily adaptable to varying circumstances and requirements, the best plan would probably be to empower the Local Government to require any municipality to appoint an assessor, and to group municipalities for this purpose, and apportion the cost so as to provide for the case of a number of small municipalities having one assessor between them, other minor points being left to be provided for by rule.

"What I have just said about the desirability of making the assessor sections more elastic appears to apply in some measure to the Act itself. It is, I believe, a recognised principle in modern legislation, whether English or Indian, that matters of detail, which are liable to vary from time to time, should be dealt with, as far as possible, by rules having the force of law, adequate provision being of course made for notifying such rules to the persons likely to be affected by them, and for giving them an opportunity to object. For convenience of reference the subjects reserved for rule-making are grouped together in a single section, which enumerates the matters regarding which rules can be made. In the Bengal Local Self-Government Act this system has been adopted and has been found to work well, and a definite proposal to introduce into the Municipal Act a rule-making section, based partly on that Act and partly on the more modern municipal legislation of other provinces, will be laid before the Select Committee for their consideration.

"The only other sections which I need mention at present are those dealing with the cleansing of private privies and cesspools (sections 49 and 70—73 of the Bill as provisionally amended by the Select Committee). It appears from the opinions which have been received, and more particularly from a valuable note, for which I may be permitted to express my obligations to the HON'BLE SYED FAZL IMAM, who, as Vice-Chairman of the Patna Municipality, has had special experience of this difficult subject, it appears, I say, from those opinions, that these sections, which proceed on a novel principle, will have the effect of materially reducing the municipal income under this head in a direction which was not contemplated. No doubt this portion of the law needs some reform, but the changes suggested in the draft Bill seem to go too far, and the better course would apparently be to adhere in the main to the existing law, merely taking the opportunity to clear up doubtful points as to the holdings liable to be taxed for the cleansing of privies and relieving the poorer classes, by providing that the fee for cleansing latrines shall in no case exceed the house-tax or personal tax actually paid. This, it is believed, will remove what is felt to be a very great grievance."

The HON'BLE MR. RISLEY moved that the HON'BLE MESSRS. LYALL, COLLIER and GHOSE and the HON'BLE BABU SURENDRANATH BANERJEE be added to the Select Committee on the Bill to amend the Bengal Municipal Act, III of 1884.

The Motion was put and agreed to.

The Council adjourned *sine die*.

CALCUTTA;

GORDON LEITH,

The 28th July, 1893.

Offg. Assistant Secretary to the Govt. of Bengal,  
Legislative Department.



**DONATION BY HER HIGHNESS THE MAHARANI SUKHYA RAJA  
SAHEBA, C.I., REGENT OF GWALIOR.**

**GENERAL DEPARTMENT—EDUCATION.**

*Calcutta, the 27th July 1893.*

**RESOLUTION No. 1848.**

**READ—**

Letter from the Director of Public Instruction, Bengal, No. 3873, dated the 4th July 1893.

The Lieutenant-Governor has learnt with pleasure that, on the occasion of her last visit to Calcutta, Her Highness the Maharani Sukhya Raja Saheba, C.I., Regent of Gwalior, was pleased to place at the disposal of the Secretary to the Bethune School Committee, Calcutta, a donation of Rs. 500 to be invested in a 4 per cent. Government Promissory Note for the award, in Her Highness's name, of an annual medal or money-prize to the girl who stands first in the School Department of the Bethune College.

2. The acknowledgments of Government are due to Her Highness for this liberal donation, and for the interest she has displayed in the promotion of female education.

3. The Lieutenant-Governor approves the proposal made by the Director of Public Instruction that the Secretary to the Bethune School Committee be appointed administrator of the fund.

**ORDER—**Ordered that a copy of this Resolution be forwarded to the Director of Public Instruction, Bengal, and to the Accountant-General, Bengal, for information; also that the Government of India, Foreign Department, be requested to forward a copy, with the permission of His Excellency the Viceroy and Governor-General in Council, to Her Highness the Maharani Sukhya Raja Saheba.

Ordered also that a copy of this Resolution be published in the *Calcutta Gazette*.

By order of the Lieutenant-Governor of Bengal,

**H. H. RISLEY,**

*Secretary to the Government of Bengal.*

**LIBERALITY OF KUMAR NORENDRA LAL KHAN, OF MIDNAPORE.**

No. 2484Med., dated Calcutta, the 28th July 1893.

From—J. A. BOURDILLON, Esq., Offg. Secy. to the Govt. of Bengal, Municipal Department.

To—The Commissioner of the Burdwan Division.

I AM directed to acknowledge the receipt of your letter No. 489M., dated the 6th instant, in which you report that Kumar Norendra Lal Khan, of Midnapore, has agreed that the sum of Rs. 30,000 offered by him to perpetuate the memory of his father should be devoted to the endowment of a zenana hospital at Midnapore, and that he has offered in addition to the above amount a sum of Rs. 10,000 for the construction of the building for the proposed hospital.

2. In reply, I am to say that the Lieutenant-Governor is pleased to accept the very liberal offer now made, the particulars of which will be published in the *Calcutta Gazette*. You are requested to convey to the donor an expression of the Lieutenant-Governor's gratification.

**SREEMUTTY BROHMOMOYI'S HINDU ORPHANS' FUND.**

No. 3665F., dated Calcutta, the 31st July 1893.

From—J. A. BOURDILLON, Esq., Offg. Secy. to the Govt. of Bengal, Financial Dept.,  
To—MESSRS. SWINHOE and CHUNDER, Attorneys.

WITH reference to the correspondence ending with Government letter No. 2844F., dated the 13th June 1893, I am directed to forward for information and communication to Babu Money Lal Mullick the accompanying copies of two notifications regarding the endowment fund of Rs. 25,000 created by him for the maintenance and education of Hindu male orphans in and about Calcutta, called in memory of his mother "The Sreemutty Brohmomoyi's Hindu Orphans' Fund."

2. I am to request that you will be so good as to convey to the donor an expression of His Honour's acknowledgment of his liberality and public spirit. This letter will be published in the *Calcutta Gazette*.

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## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 29th July 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL.</b>			
BURDWAN DIV.	1 Burdwan July 29, '93	0.23	Weather—seasonable. <i>Aman</i> being transplanted. Prospects good. Fodder sufficient. Prices of common rice :— <div style="float: right; text-align: right;"> <i>Srs.</i>            Burdwan ... 10 to 12            Kalna ... 10 to 13            Katwa ... 11½            Raniganj ... 13 } per rupee.         </div>
	Kalna ...	2.47	
	Katwa ...	3.39	
	Raniganj ...	2.42	
	2 Bankura „ 29, '93	3.69	Weather—cloudy with light showers followed by sunshine. Transplantation of <i>aman</i> is still going on. Sugarcane has been damaged by the late rain. Common rice selling at 11 to 12 seers per rupee at Bankura and 12 seers at the Vishnupur markets.
	Vishnupur ...	0.56	
	3 Birbhum „ 29, '93	3.35	A break in the rains has occurred. Paddy seedlings are still being transplanted and prospects are very good. Common rice sells at from 12 to 15 seers per rupee.
	Rampur Hât ...	2.94	
	4 Midnapore „ 29, '93	2.35	Weather—on the whole fair with occasional showers, especially on Wednesday previous when it rained heavily. The prospects of the rice crop are good, although the damage caused by the flood last week is not yet ascertained. The indigo outturn is very poor indeed compared with last year. Prices of common rice :— <div style="float: right; text-align: right;"> <i>Srs.</i>            Sadar ... 11            Contai ... 13            Tamluk ... 10            Ghatal ... 11 } per rupee.         </div>
	5 Hooghly „ 29, '93	.52	Weather—hot, and latterly there has been a distinct break in the rains. Prospects generally good; except for a little damage to crops in low lands, they are exceptionally good. Prices of common rice :— <div style="float: right; text-align: right;"> <i>Srs.</i>            Sadar ... 10 to 11            Serampore ... 10 to 11½            Jahanabad ... 9 to 12 } per rupee.         </div>
	Serampore ...	3.56	
	Jahanabad ...	1.93	
	6 Howrah „ 29, '93	1.08	Weather—hot and close. Transplantation of paddy going on on the higher lands. Condition of cattle good. Fodder and water-supply sufficient. Price of rice 10 seers per rupee.
	Ulubaria ...	3.10	
PRESIDENCY DIV.	7 24-Parganas „ 29, '93	3.26	Weather—cloudy and hot. Transplantation of <i>aman</i> going on except in some parts of thanas Bankipore, Debipore, and Mathurapore which are yet flooded. <i>Aus</i> and jute injured by excess of rain. Prices of common rice :— <div style="float: right; text-align: right;"> <i>Srs.</i>            Sadar ... 10 to 10½            Barasat ... 9            Basirhat ... 10            Diamond Harbour ... 11½ } per rupee.         </div>
	8 Nadia „ 29, '93	0.44	Weather—hot with occasional showers. Crops on high lands doing well. Jute and early rice being harvested. Transplantation of <i>aman</i> going on. Prices stationary. Rivers rising. Ample fodder for cattle.
	Kushtia ...	5.05	
	Meherpur ...	3.63	
	Chuadanga ...	1.19	
	Ranaghat ...	2.17	
	9 Khulna „ 29, '93	0.10	Weather—hot with light clouds. The break in the rains which has occurred during the week has improved the prospects of all crops. Transplantation of <i>aman</i> going on briskly. <i>Aus</i> ripening, and a little of it is being reaped in a few places. Coarse rice selling at 9 to 10 seers per rupee. Fodder and water for cattle plentiful.
	Bagerhat ...	2.21	
	Satkhira ...	0.69	
	10 Jessore „ 22, '93	1.98	Weather—hot and cloudy with occasional showers. Harvesting of jute and <i>aus</i> commenced. Manufacture of indigo nearly over. Transplantation of <i>aman</i> going on. Cattle-disease reported from Salkhiya, Mahirampur, and Gorupota. Prices steady.
	Jhenida ...	1.52	
	Magura ...	1.57	
	Narail ...	0.75	
	Bangaon ...	2.22	
	11 Murshidabad „ 29, '93	3.93	Weather—sultry and seasonably rainy. Harvesting of <i>dhadoi</i> continues. Transplantation of <i>aman</i> nearly finished. The prospect of jute, mulberry and sugarcane is not so bad as might have been expected. Fodder available for cattle. Coarse rice sells at 11 seers per rupee.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL—concl'd.</b>			
CHITTAGONG DIVN.	12 Chittagong ... ..	...	Reports not received.
	13 Noakhali ... ..	...	
	14 Tippera „ 29, '93	6.93	Weather—seasonable. <i>Aus</i> is being reaped in some places. Much damage has been caused to <i>aus</i> by heavy flood. Condition of <i>aman</i> not very hopeful.
	15 Chittagong Hill Tracts. „ 28, '93	1.87	Weather—cloudy with occasional showers of rain. Paddy plants in <i>jum</i> progressing. Condition of <i>aus</i> paddy good. No cattle-disease prevailing. Price of common rice 9 seers per rupee.
Dacca DIVN.	16 Dacca „ 29, '93	1.08	Weather—cloudy and rainy. Prospects of standing crops generally good. Harvesting of <i>aus</i> and jute going on, but owing to rapid rise of water, <i>aus</i> in some places has been submerged and cannot therefore be conveniently gathered. Common rice selling at from 9 to 11 seers per rupee. Fodder available. No cattle-disease.
	17 Faridpur „ 29, '93	4.24	Weather—seasonable. <i>Aus</i> and jute are being cut in some places. <i>Aus</i> has failed in most parts of the district and the outturn is poor. The condition of jute is also bad, and it has been damaged in most places. The condition of the <i>aman</i> on high lands is hopeful. Common rice sells at 10 to 11 seers per rupee. Condition of cattle reported good generally, but cattle-disease still prevails in thanas Palong and Shibchar in Madaripur.
	Goalundo ...	2.67	
	Madaripur ...	0.84	
	18 Backergunge „ 29, '93	1.15	Weather—seasonable. State and prospects of crops fair. Common rice is being sold from 9 to 12 seers per rupee. Fodder and water sufficient.
	Pirojpur ...	2.18	
	Patuakhali ...	4.00	
RAJSHAHI DIVN.	Bhola ...	5.76	Weather—showers of rain throughout the week. Harvesting of <i>aus</i> rice crop and jute continues and transplantation of <i>aman</i> going on. The subdivisional officers of Netrakona and Kishoreganj report that the unusually heavy rainfall has caused considerable damage to the <i>aus</i> crop and that transplantation of the <i>aman</i> crop has been impeded. Common rice sells at 10 seers per rupee. Condition of cattle good. Supply of fodder and water sufficient.
	19 Mymensingh „ 29, '93	10.14	
	20 Dinsipur „ 29, '93	2.84	Weather—hot; occasionally cloudy and rainy. Prospects of standing crops continue to be very good. Transplantation of <i>haimanti</i> going on. Cutting of jute commenced in places. Prices of rice :—
	Thakurgaon ...	8.18	
	21 Rajshahi „ 29, '93	0.39	Weather—seasonable and very hot occasionally. The improvement in the weather has brought about a corresponding improvement in the state of the crops. If sunshiny weather continues, a great part of the crops will entirely recover. The jute, however, to a great extent is put beyond recovery: where it is being reaped, the return is deficient. Water and fodder-supply ample. There is no cattle-disease. Price of rice varies from 10 to 13 seers.
	Nator ...	1.74	
	Naugaon ...	6.10	
	22 Rangpur „ 29, '93	4.94	Weather—rainy. The <i>aus</i> harvest is nearly over. Transplantation of <i>aman</i> going on. Prices steady.
	Gaibanda ...	3.60	
	Kuriganj ...	7.12	Weather—unsettled. Transplanting of <i>aman</i> goes on. Prospects of standing crops unchanged. Common rice sells at 12 seers per rupee. Fodder and water sufficient.
	Nilphamari ...	5.43	
	Govindganj ...	2.83	
	Ulipur ...	1.80	
	Sunderganj ...	6.54	
	23 Bogra „ 29, '93	3.82	Weather—cloudy and rainy. Rivers rising. <i>Aus</i> and jute are being cut. Common rice sells at 10 seers per rupee at Sirajganj and 11½ seers at Pabna. Fodder and water-supply ample.
	Sherpur ...	4.16	
	Naukhila ...	4.15	Weather—less rainy. <i>In the hills</i> :— <i>Bhutta</i> , <i>kagni</i> , <i>shama</i> , <i>chota marua</i> , potatoes and <i>phaphur</i> being harvested. <i>Bara marua</i> and <i>aghani dhan</i> progressing favourably. <i>Bhadai dhan</i> coming to perfection. <i>In the Terai</i> :—Prospect of crops good. <i>Bhadai</i> paddy in ear. Prices of coarse rice :—
	24 Pabna „ 29, '93	4.22	
	25 Darsaling „ 29, '93	2.68	Weather—seasonable. Harvesting of <i>haimanti</i> continues. Transplantation of <i>haimanti</i> in full swing. Prospect of jute favourable. Price of common rice at 11 seers per rupee. Fodder and water-supply sufficient. No cattle-disease.
	• Siliguri ...	9.06	
	23 Jalpaiguri „ 29, '93	6.28	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR.</b>			
<b>BRAGALPUR DIV.</b>	27 Monghyr July 29, '98	0.62	Weather—partly fair and partly cloudy with excessive heat. Low land crops injured by heavy showers. Indigo and sugarcane doing well. Paddy transplantation vigorously pushed on. Ample fodder and water. Prices of common rice:—  Srs. Sadar ... .. 11 to 16 } Begusarai ... .. 14 } per rupee. Jamui ... .. 13 }
	Begusarai ...	1.19	
	Jamui ...	0.48	
	28 Bhagalpur .. 29, '93	0.88	Weather—rainy. The damage done to <i>makai</i> and <i>marua</i> by the excessive rain has been estimated at about 6 annas. Otherwise the prospect of crops is good.
	Banka ...	2.09	
	Madhipura ...	2.93	
	Supaul ...	1.90	
	29 Purnea .. 29, '93	2.58	Weather—cloudy with occasional sunshine. Harvesting of <i>bhadoi</i> commenced. Transplantation of <i>aghani</i> going on. No cattle-disease reported. Fodder and water sufficient. Prices stationary.
	Kishanganj ...	7.06	
	Araria ...	3.20	
	30 Malda .. 29, '93	3.45	Weather—hot, cloudy and rainy with intervals of sunshine. Harvesting of <i>bhadoi</i> rice has begun; average outturn is expected. Transplantation of winter rice is being pushed on. Ordinary rice selling at 11 to 15 seers per rupee. Supply of fodder ample.
	Chanchal ...	2.63	
	Shibganj ...	1.64	
	31 Sonthal Parganas .. 29, '93	2.22	Weather—cloudy with occasional showers of rain. Transplantation of paddy going on briskly. Prospects of Indian-corn and other <i>bhadoi</i> crops not favourable owing to frequent rain. Prices stationary. Water and fodder plenty.
	Deoghur ...	3.28	
	Godda ...	2.60	
	Jamtara ...	3.83	
	Pakur ...	2.90	
	Rajmahal ...	3.64	
<b>PATNA DIVISION.</b>	32 Patna .. 29, '93	0.40	Weather—cloudy and hot and drizzling at times. The <i>bhadoi</i> crops are said to be damaged in flooded fields, but the comparative absence of rain in the first week in a large part of the district has given time for much of the excess water to drain off. Land is being widely prepared for the transplantation of paddy. Prices of common rice:—  Srs. Sadar ... .. 15 } Barh ... .. 12½ } per rupee. Bihar ... .. 16 } Dinapore ... .. 13 }
	Barh ...	0.35	
	Bihar ...	4.00	
	Dinapur ...	0.98	
	33 Gaya .. 29, '93	0.32	Weather—clear in the first part of the week and cloudy latterly. Transplantation of paddy going on. Absence of rain during the first part of the week has been somewhat beneficial to the <i>bhadoi</i> crops. Prices stationary. Fodder and water for cattle ample.
	Jahanabad ...	10.34	
	Nawada ...	3.24	
	Aurangabad ...	3.62	
	34 Shalabad .. 29, '93	0.35	A break in the rains with its usual features. The weather is most favourable for the crops, all of which promise well.
	Buxar ...	4.67	
	Bhabhua ...	3.53	
	Sasaram ...	4.00	
	35 Darbhanga .. 29, '93	2.52	Weather—cloudy and close. Transplanting of <i>dhan</i> and <i>marua</i> in progress. <i>Bhadoi</i> prospects still continue favourable. Weeding operations impeded by constant showers. A break in the rains would be beneficial for this crop. Fodder for cattle sufficient. Prices remain stationary.
	Madhubani ...	5.92	
	Samastipur ...	3.20	
	36 Muzaffarpur .. 29, '93	2.87	Weather—cloudy and rainy. Transplantation of <i>dhan</i> still going on. <i>Makai</i> injured to some extent, otherwise prospects good. No disease among cattle. Fodder and water for cattle sufficient.
	Hajipur ...	2.08	
	Sitamarhi ...	6.81	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR—concl'd.</b>			
PATNA DIVISION—concl'd.	37 Saray July, 29, '93	0.25	Weather—seasonable. A break in the rains only in parts. Prospects of crops good on the whole. A break required for maize and indigo crops. Prices of common rice :—
	Siwan ..	2.38	
	Gopalganj ..	8.76	
			Srs. 13 } per rupee.
			Chapra ... .. 13
			Siwan ... .. 12½
			Gopalganj ... .. 13
38	Champaran .. 20, '93	5.49	Weather—cloudy with rain every day. Sowing of <i>dhan</i> is over. Transplantation yet going on. Prices nearly stationary. Fodder and water sufficient.
<b>ORISSA.</b>			
ORISSA DIV.	39 Cuttack .. 29, '93	0.97	Weather—sultry. Transplantation of <i>sarad</i> in progress. <i>Bali</i> needs rain in parts. Supply of fodder sufficient. Prices of common rice :—
			Srs. c. Srs. c.
			Sadar ... .. 10 8 to 14 7 } per rupee.
			Jajpur ... .. 15 12 to 18 6
			Kendrapara ... .. 16 0 to 18 6
			Banki ... .. 15 12
40	Puri .. 27, '93	0.12	Weather—hot and cloudy. Rain is much wanted in the part of the district lying to the east of the pilgrim road. Agricultural operation is going on well in Khurda. Weeding of <i>bali</i> continues. Miscellaneous crops doing fairly. Prices of common rice :—
	Khurda ..	1.85	
			Srs. c. Srs. c.
			Sadar ... .. 11 13 to 17 5 } per rupee.
			Khurda ... .. 12 0 to 17 1
41	Balasore .. 29, '93	0.55	Weather—hot and dry. Transplantation of paddy seedlings almost finished; 12 annas crop almost assured. Prices of rice :—
			Srs. 13 } per rupee.
			Balasore ... .. 13
			Bhadrak ... .. 15
<b>CHOTA NAGPUR.</b>			
<i>South-West Frontier Agency.</i>			
CHOTA NAGPUR DIV.	42 Hazaribagh July, 29, '93	0.22	Weather—seasonable. Transplanting of rice and <i>marua</i> still in progress. Indian-corn injured by excessive rain. Fodder abundant. Prices of common rice :—
	Giridi ..	3.29	
			Srs. 9 to 14 } per rupee.
			Head-quarters ... .. 9 to 14
			Giridi ... .. 9 to 11½
43	Lohardaga .. 29, '93	1.36	Weather—hot and cloudy. Transplantation of winter paddy continues. Prospect of <i>bhadai</i> continues good. Common rice selling at 12 seers per rupee. Fodder and water plentiful.
44	Palamanu .. 29, '93	1.58	Weather—hot and cloudy with occasional light showers. The <i>bhadai</i> crops are said to be damaged in some thanas owing to excessive rainfall. Transplantation of paddy continues. Prices stationary. Fodder plentiful.
45	Singbhum .. 29, '93	1.01	Weather—seasonable. Condition of the crops good everywhere. Price of common rice stationary. A few cases of cattle-disease reported from Ghatailla and Kolhan thanas.
46	Manbhum .. 22, '93	0.28	Weather—showery in early part of the week, bright and warm for the last two days. The break in the rains will do much good to all the crops. Prospects of <i>bhadai</i> crops indifferent. Prices stationary.
	Gobindpur ..	4.27	

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 1st August, 1893.H. H. RISLEY,  
Secy. to the Govt. of Bengal.

Results of the Meteorological Observations taken at the Alipore Observatory from  
23rd to 29th July 1893.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
July	23rd	145.7	0.5	29.581	84.7	88.7	7.1	81.6	81.5	1.035	80.3	87	SW and SSW ...	141	Nil	Chiefly cloudy, so.
"	24th	135.6	Nil	.541	85.1	88.3	7.6	80.7	81.8	1.045	80.6	86	SW and SSW ...	113	"	Cloudy, o.
"	25th	131.7	"	.548	81.0	81.9	6.2	75.7	79.2	0.976	78.5	92	WSW and calm...	62	3.26	Cloudy, o, g, d, t, p.
"	26th	150.0	3.9	.601	83.3	88.7	10.3	78.4	79.9	.978	78.6	86	W and calm	38	Nil	Chiefly cloudy, o, g.
"	27th	154.6	7.1	.618	84.9	90.5	11.3	79.2	80.9	1.003	79.3	83	SW, SSW and calm	94	"	Partially cloudy.
"	28th	153.6	4.6	.595	85.1	89.8	9.0	80.8	80.5	0.976	78.5	80	SSW and SW ...	91	"	Chiefly cloudy, o.
"	29th	146.4	2.9	.540	84.9	89.6	9.5	80.0	80.5	.983	78.7	81	SE and calm ...	37	"	Chiefly cloudy, o. t.

The mean pressure of the seven days ... .. Inches. 29.576

The average pressure of the corresponding period for 24 years, Surveyor-General's Office ... .. 29.532

The total number of hours of bright sunshine ... .. Hours. 19.0

The maximum possible number of hours of sunshine ... .. 92.5

The mean temperature of the seven days ... .. 84.2

The average temperature of the corresponding period for 24 years, Surveyor-General's Office ... .. 83.1

The extreme variation of temperature ... .. 14.8

The maximum temperature ... .. 90.5

The highest velocity of the wind in one hour ... .. Miles. 10

The highest pressure of wind on one square foot ... .. lbs. ?

The mean relative humidity ... .. % 85

The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office ... .. 87

The total fall of rain from 23rd to 29th July 1893 ... .. Inches. 3.26

The average fall of the corresponding period for 24 years, Surveyor-General's Office ... .. 3.30

The total fall from 1st January to 29th July 1893 ... .. 59.93

The average fall of the corresponding period for 24 years, Surveyor-General's Office ... .. 33.41

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o, overcast; g, gloomy; d, drizzling rain; t, thunder; p, passing temporary showers.

# Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.											
			AIR PRESSURE.			WIND.		TEMPERATURE.						
			Mean barometric height, 8 A.M. reduced to 32°.	Mean reduced to sea-level and constant gravity, lat. 45°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.
ORIGINAL.	Puri	Puri	29.014	29.569	—	SW & calm.	117	93.2	28th July	79.6	26th July	91.8	82.2	87.0
	Puri	Gopalpore	29.013	29.574	+0.021	Wly	287	90.2	20th "	78.8	25, 27 "	80.1	70.5	84.3
	Puri	False Point	29.013	29.575	+0.027	SSW	278	89.5	26th "	75.6	26th "	88.0	79.3	84.1
	Cuttack	Cuttack	29.540	29.502	+0.022	Wly	56	95.2	27, 28 "	76.8	26th "	93.5	79.4	86.5
	Balasore	Balasore	29.558	29.560	+0.021	SSW	138	91.4	23rd "	73.8	26th "	89.4	79.0	84.2
	Midnapore	Midnapore	29.482	29.576	+0.037	SWly	61	93.3	23, 24 "	76.1	26 & 28 "	91.0	78.2	84.6
	24-Parganas	Calcutta	29.605	29.572	+0.048	SW	93	90.6	28th "	75.7	25th "	88.1	79.2	83.7
	24-Parganas	Saugor Island	29.008	29.577	+0.047	SW	350	90.2	24, 25, 28 & 29.	77.0	26th "	88.7	81.1	84.0
	Howrah	Howrah	29.563	29.568	+0.041	SSWly	97	91.3	28th "	77.2	26th "	80.1	79.3	84.2
	Nadia	Krishnagar	29.561	29.571	+0.031	Sly & Calm.	54	92.0	28th "	79.4	26, 27 "	80.9	80.5	85.3
SOUTH-WEST BENGAL.	Jessore	Jessore	29.523	29.549	+0.047	Calm	59	92.1	28th "	79.2	25th "	90.0	80.0	85.3
	Burdwan	Burdwan	29.530	29.561	+0.042	SW	46	94.7	28th "	73.9	23rd "	91.7	77.5	84.7
	Burdwan	Raniganj	29.530	29.561	+0.042	SW	46	94.7	28th "	73.9	23rd "	91.7	77.5	84.7
	Bankura	Bankura	29.529	29.546	+0.041	Calm	47	94.1	28th "	77.1	26th "	91.2	79.0	85.1
	Birbhum	Birbhum	29.538	29.533	+0.027	SSW	100	91.7	24th "	77.3	20, 29 "	80.3	78.9	84.2
	Murshidabad	Murshidabad	29.538	29.533	+0.027	SSW	100	91.7	24th "	77.3	20, 29 "	80.3	78.9	84.2
	Pabna	Sirajganj	29.560	29.565	+0.018	SWly	?	87.1	28, 29 "	76.7	23rd "	85.5	78.3	81.4
	Bogra	Bogra	29.540	29.553	+0.038	SE	63	90.2	26th "	75.2	28, 29 "	87.6	76.8	82.2
	Rajshahi	Rampur B.	29.533	29.552	+0.057	SWly	170	90.6	28th "	76.6	26th "	88.5	77.7	83.1
	Malda	Malda	29.510	29.541	—	SE	66	93.3	29th "	78.0	24th "	90.2	79.3	84.8
NORTH BENGAL.	Dinajpur	Dinajpur	29.475	29.550	—0.002	Variable	26	91.6	27.38 "	76.7	26th "	88.1	79.2	83.8
	Rangpur	Rangpur	29.480	29.556	+0.004	Variable	69	88.8	26th "	76.2	26th "	86.9	77.6	82.3
	Jalpaiguri	Jalpaiguri	29.325	29.502	+0.040	Variable	52	89.9	28th "	74.6	26th "	85.2	76.7	80.9
	Kuch Bihar	Kuch Bihar	29.325	29.502	+0.040	Variable	52	89.9	28th "	74.6	26th "	85.2	76.7	80.9
	Darjeeling	Darjeeling	22.843	—	—0.016	WSW	158	66.1	23rd "	55.0	27th "	64.2	57.3	60.5
	Sikkim	Gnatong	14.985	—	—	Variable	177	56.4	23rd "	37.1	26th "	52.0	38.6	45.8
	Chittagong	Chittagong	29.002	29.036	+0.031	S								











**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSER-  
VATIONS TAKEN IN ASSAM, FOR THE WEEK ENDING 8 A.M.,  
SATURDAY, THE 29TH OF JULY 1893.**

DURING the previous week a westerly wind current had gradually advanced over the province, and at its close westerly and south-westerly winds were reported at all except a few stations in the extreme eastern and northern districts. This was accompanied by the establishment of an area of decidedly high pressure over the southern and south-western districts, and on the 23rd, or the first day of the present week, there was an excess pressure above the normal of the day of about 0.06 inch over this area. Over the central parts of the province pressure was also in slight excess, but a distinct defect was registered in parts of North Bengal and North Bihar. This distribution of pressure hence caused the monsoon current to set away from the west of the province towards the east, and from the east to the north of Bengal. Conditions were therefore still favourable for rainfall in the north and to a certain extent in the east of the province, but the pressure conditions were unfavourable for the continuance of rainfall in the western and south-western districts. On the 24th there was a general fall of pressure over the province, and the distribution became rather more normal than it had been, but south-westerly winds still prevailed in most districts. On the 25th pressure again fell in Orissa, and partly in the southern districts, while it was rising elsewhere, particularly in Bihar, so that the area of high pressure in the extreme west of the province tended to re-establish itself. This was succeeded on the 26th by a further rather rapid general increase of pressure, and a decided area of comparatively high pressure again covered the western half of the province, and this area gradually extended on the 27th and 28th until it reached South-East Bengal, but on the 29th a moderate fall of pressure commenced, tending to partially efface this abnormal distribution of pressure. With this unusual distribution of pressure existing for a considerable part of the week, the monsoon current has been deflected to a great extent towards the east of the province, and thence along the foot of the hills to the northern districts, while the western and south-western districts have not been much influenced by it. Indeed, during the second-half of the week a partial break in the rains obtained over Orissa, South-West Bengal, South Bihar and Chota Nagpur, and it even extended for a day or two to North Bengal, but the break was never complete, and in the eastern districts and in Assam rainfall has continued throughout the week. Hence the rainfall for the week has been in large defect from the normal in Orissa, Chota Nagpur and South Bihar, and in moderate defect in South-West Bengal. The falls have been about normal in amount in North Bihar and East Bengal, but on the other hand in North Bengal the quantity of rain received has been more than twice as great as usual.

*Pressure.*—The mean pressure of the province for the week has been in excess of the normal in all divisions. The usual excess in Chota Nagpur and South-West Bengal has been about 0.04" to 0.05", and in most other districts it has been from about 0.02" to 0.025", while in Assam it has only equalled 0.008". This abnormal distribution it will be seen would have the natural effect of deflecting the monsoon current away from the west towards the east and north of the province.

*Temperature.*—The variations of temperature over the province from day to day have been quite unimportant, but with the comparative lightness of the rainfall over a large area the mean temperature has ranged much higher than usual, and thus excess temperatures of from about 1° to 2° have been recorded in Chota Nagpur, Orissa and South-West Bengal, and smaller excess temperatures have been recorded in South Bihar and East Bengal. On the other hand defects of about a degree have been registered in North Bengal and North Bihar. In the whole of Bengal for the week the mean temperature has been about 0.5° in excess of the normal. In Assam also a considerable excess of 1.8° has been recorded.

*Rainfall.*—Has been heaviest in North Bengal, which has received an average amount of 5.87 inches, or rather more than three inches in excess of the normal. East Bengal has received 4.06 inches, or slightly more than usual. In South-West Bengal and North Bihar the falls have varied from two to three inches, while in Chota Nagpur and South Bihar they have been little more than an inch. Finally, the falls have been smallest in Orissa, which has only received 0.71 inch. Expressed as a percentage of the normal fall for the period, the following are the amounts which have been received:—North Bengal 208 per cent., East Bengal 109 per cent., North Bihar 105 per cent., South-West Bengal 74 per cent., Chota Nagpur 43 per cent., South Bihar 37 per cent., and Orissa 23 per cent. only.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 29th of July 1893:—

METEOROLOGICAL DIVISIONS.		TEMPERATURE.						RAINFALL.									
		Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.		Since 1st of month.		Since 16th May 1893.		
				Of highest of each day.	Of lowest of each day.	Of mean of each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.
Orissa	...	85.2	73.8	90.5	70.9	85.2	+1.8	0.71	3.12	-2.41	1.27	3.43	-2.16	5.98	11.05	28.54	22.42
South-West Bengal	...	94.7	73.0	80.9	79.4	84.7	+0.9	2.13	2.89	-0.76	2.60	3.85	-1.16	10.35	10.77	37.07	23.41
North Bengal	...	93.3	74.0	87.5	77.9	82.7	-1.4	5.87	2.82	+3.05	5.00	3.71	+1.29	22.17	13.04	44.61	35.63
East Bengal	...	91.3	74.8*	86.4	78.5	82.5	+0.1	4.00	3.72	+0.34	4.48	4.46	+0.02	15.67	14.57	51.02	37.82
North Bihar	...	94.8	74.9	88.3	78.6	83.5	-0.8	2.77	2.64	+0.13	2.75	3.24	-0.48	17.60	11.35	37.26	31.58
South Bihar	...	95.0	75.4	89.5	79.7	84.6	+0.6	1.10	2.97	-1.87	2.00	3.57	-1.57	14.69	10.71	25.85	18.04
Chota Nagpur	...	93.0*	69.0*	88.1*	74.4*	81.3*	+1.4*	1.43	3.25	-1.83	1.70	4.59	-2.80	14.53	11.91	33.53	21.44
Assam	...	90.6	74.8	86.9	77.3	82.2	+1.8										

\* Daltonganj not included.

METEOROLOGICAL OFFICE, BENGAL,  
The 1st August 1893.

A. PEDLER,  
Meteorological Reporter to the Govt. of Bengal.

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 23rd to 29th July 1893.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Falt.	TEMPERATURE.						HYGROMETRY.			Rainfall, past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
July	23rd	29.622	85.4	90.0	9.2	80.8	87.1	83.0	1.075	81.5	84	...
"	24th	600	81.9	89.0	8.2	80.8	86.6	83.3	1.097	82.1	87	...
"	25th	601	81.9	87.0	10.2	76.8	80.6	78.5	950	77.7	91	0.75
"	26th	611	84.2	91.0	13.7	77.3	86.6	82.8	1.047	80.6	83	0.54
"	27th	659	85.9	93.0	14.2	78.8	89.1	83.5	1.074	81.4	79	...
"	28th	644	86.1	92.0	11.8	80.2	88.6	83.5	1.080	81.6	80	...
"	29th	610	85.1	90.0	9.9	80.1	87.6	82.5	1.045	80.6	80	...

The mean 10 A.M. pressure of the seven days ... .. 29.625  
Inches.

The mean temperature of the seven days ... .. 84.8

The extreme variation of temperature ... .. 16.2

The maximum temperature ... .. 93.0

The mean 10 A.M. relative humidity of the seven days ... .. 83  
%

The total fall of rain from 23rd to 29th July 1893 ... .. 1.29  
Inches.

The daily mean temperatures are the crude means of maximum and minimum temperatures.

METEOROLOGICAL OFFICE, INDIA,  
The 31st July 1893.

C. LITTLE,  
For Meteorological Reporter to the Govt. of India.



*Vital Statistics of Towns in Bengal with a population of 20,000 and over during the month of June 1893.*

[illegible]

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,

H. J. DYSON, Surgeon-Capt., F.R.C.S.,  
*Offg. Sanitary Commissioner for Bengal.*

*The 28<sup>th</sup> July 1893.*



DIVISIONS.	Districts.	BIRTHS.										DEATHS.										AVERAGE OF CORRESPONDING MONTHS OF PREVIOUS FIVE YEARS.		
		Population under registration.	BIRTHS.		Ratio per 1,000 of population per annum.	CHOLERA.	SMALL-POX.	FEVER.	DYSENTERY AND DIARRHŒA.	INFANT.	OTHER CAUSES.	TOTAL OF ALL CAUSES.		Ratio per 1,000 of population per annum.	Number regis.	Ratio per 1,000 of population per annum.	Number regis.	Ratio per 1,000 of population per annum.	Number regis.	Ratio per 1,000 of population per annum.	Number regis.	Ratio per 1,000 of population per annum.		
			Number registered.	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21			
24-Parganas	Presidency	1,992,333	3,823	94.90	100	160	5	02	1,571	11.76	61	56	111	60	551	1.68	2,438	12.36	2,493	12.54	2,493	12.54		
	Bachchan	923,314	163	24.84	4	72	3	02	346	3.76	16	18	31	24	171	1.84	771	8.36	708	7.64	708	7.64		
	Baranagar	3,172,136	8,590	27.00	1,672	52.6	75	04	5,191	16.36	125	148	255	112	771	2.42	7,850	24.72	5,123	16.16	5,123	16.16		
	Baranagar	2,061,337	4,001	19.40	1,572	76	71	04	3,125	15.16	135	169	278	112	358	1.72	4,180	20.24	3,916	19.00	3,916	19.00		
	Shahabad	1,754,199	2,983	16.98	8	04	71	04	2,116	12.00	12	12	23	12	134	0.76	2,438	13.88	2,438	13.88	2,438	13.88		
	Bhagalpur	1,937,671	6,174	31.86	15	04	34	04	1,572	8.12	56	72	123	56	1,006	5.16	2,821	14.56	2,821	14.56	2,821	14.56		
	Cuttack	596,770	1,712	28.66	1,572	264	44	04	1,416	23.72	13	12	23	56	174	2.92	1,453	24.32	1,377	22.92	1,377	22.92		
	Palmanu	11,930,507	23,431	19.60	1,572	264	44	04	1,416	23.72	13	12	23	56	174	2.92	1,453	24.32	1,377	22.92	1,377	22.92		
	Total	11,930,507	23,431	19.60	1,572	264	44	04	1,416	23.72	13	12	23	56	174	2.92	1,453	24.32	1,377	22.92	1,377	22.92		
	Average of corresponding month of previous five years.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	
24-Parganas	Difference + or -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Total for the Province	70,388,083	210,113	29.76	1,572	264	44	04	1,416	23.72	13	12	23	56	174	2.92	1,453	24.32	1,377	22.92	1,377	22.92		
	Average of the corresponding month of previous five years.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	Not available, as birth registration in rural areas was only introduced from 1892.	
	Difference + or -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Shahabad	Towns.	31,423	50	15.90	7	264	...	...	24	7.72	2	22	...	...	...	...	...	...	...	...	...	...		
	1 Compoor-Chitpur	32,835	35	10.62	1	36	...	...	18	5.48	...	...	...	...	...	...	...	...	...	...	...	...		
	2 Baranagar	34,278	45	13.12	23	672	...	...	30	8.76	...	...	...	...	...	...	...	...	...	...	...	...		
	3 South Baranagar	68,932	40	58.18	13	372	...	...	50	72.72	...	...	...	...	...	...	...	...	...	...	...	...		
	4 Khorda or South Barrackpore.	35,697	33	9.24	...	264	...	...	30	8.40	...	...	...	...	...	...	...	...	...	...	...	...		
	5 Nadiati	28,724	53	18.46	5	192	...	...	20	7.00	...	...	...	...	...	...	...	...	...	...	...	...		
	6 Nadiati or North Barrackpore.	20,984	30	14.30	25	756	...	...	20	9.50	...	...	...	...	...	...	...	...	...	...	...	...		
	7 Arrah	46,405	57	12.28	...	36	...	...	30	6.48	...	...	...	...	...	...	...	...	...	...	...	...		
	8 Secram	22,713	30	13.20	...	36	...	...	30	13.20	...	...	...	...	...	...	...	...	...	...	...	...		
	9 Cuttack	4,153	65	15.65	1	24	...	...	15	3.60	...	...	...	...	...	...	...	...	...	...	...	...		
Cuttack	TOTAL	371,323	592	15.94	87	276	4	12	278	7.48	15	152	18	48	17	240	6.4	19.56	357	17.83	357	17.83		
	Average of corresponding month of previous five years.	...	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	
	Difference + or -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Total of towns with a population of 20,000 and over.	1,649,273	3,327	20.12	313	976	103	72	1,078	6.48	32	322	32	48	727	4.38	3,533	21.36	3,275	19.84	3,275	19.84		
	Average of corresponding month of previous five years.	...	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	
	Difference + or -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Total of towns with a population of 20,000 and over.	1,649,273	3,327	20.12	313	976	103	72	1,078	6.48	32	322	32	48	727	4.38	3,533	21.36	3,275	19.84	3,275	19.84		
	Average of corresponding month of previous five years.	...	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	Complete figures of past five years are not available.	
	Difference + or -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	

J. J. DYSON, Surgeon-Capt., F.R.C.S.,  
Offg. Sanitary Commissioner for Bengal.

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,  
The 28th July 1893.

*Supplementary Vital Statistics of Districts for April 1893 received too late for publication with the figures for that month on the 1st July 1893.*

Divisions.	Districts.	BIRTHS.			DEATHS.																AVERAGE OF COR-RESPONDING MONTH OF PREVIOUS FIVE YEARS.	
		Population under registra- tion.	Ratio per 1,000 of popu- lation.		CHOLERA.	SMALL-POX.	FEVER.	DYSENTERY AND DIARRHEA.		INJURY.	OTHER CAUSES.		TOTAL OF ALL CAUSES.		Ratio per 1,000 of population per annum.	Number regis- tered.						
			Number registered.	Ratio per 1,000 of popu- lation.				Number regis- tered.	Ratio per 1,000 of population per annum.		Number regis- tered.	Ratio per 1,000 of population per annum.	Number regis- tered.	Ratio per 1,000 of population per annum.			Number regis- tered.	Ratio per 1,000 of population per annum.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
Dacca	Mymensingh	3,472,186	8,630	29.88	1,237	4.20	51	.12	3,740	12.84	45	.12	44	.12	650	2.16	5,767	19.92	5,297	18.24		
	Total for the Province	70,388,083	192,410	32.76	4,776	7.2	2,148	.36	97,862	16.68	2,338	.36	1,565	.24	20,722	3.48	139,089	22.08	139,104	27.12		
	Average of corresponding month of previous five years.	...	Not available, as birth registration in rural areas was only introduced from 1892.		30,270	5.16	2,021	.24	102,574	17.40	3,811	.60	1,816	.24	15,612	3.12	139,104	27.12	...	...		
	Difference	...	...	...	...	-25,494	-4.44	+127	+.12	-4,382	-.72	-1,275	-.24	+41	Equal	+2,140	+.36	-2,035	-5.04	...	...	

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,  
The 28th July 1893.

H. J. DYSON, Surgn.-Capt., F.R.C.S.,  
Offg. Sanitary Commissioner for Bengal.

## CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 22nd July 1893,  
as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 22ND JULY 1893.			WEEK ENDING SATURDAY, THE 23RD JULY 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ... ..	199	39,510	625	107	37,700	591
Jute ... ..	11	4,225	55	8	2,475	41
Firewood ... ..	81	30,575	504	98	52,350	786
Other articles ... ..	849	1,74,790	2,874	618	1,56,705	2,311
Total ... ..	1,140	2,49,100	3,858	831	2,49,230	3,729

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

*Approximate Return of Traffic for week ended 22nd July 1893, on 1,610½ miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchan- dise.	Total.
Total traffic for the week ...	266,734	Rs. A. P. 2,63,504 11 0	Mds. Rs. 10,02,824 10	Rs. A. P. 4,61,376 8 0	Rs. A. P. 17,701 3 0	Rs. A. P. 7,42,617 6 0	75,059½	89,863½	164,923
Or per mile of railway ...	.....	163 0 10	.....	286 7 9	11 0 6	461 2 1	.....	.....	.....
For previous 2½ week of half- year ... ..	651,038	7,00,065 13 0	44,25,430 0	10,10,960 14 0	36,433 3 0	17,48,359 14 0	162,539½	213,652	376,191½
Total for 3½ weeks ...	917,772	9,64,170 8 0	64,28,254 10	14,72,339 6 0	54,107 6 0	21,91,007 4 0	237,590	303,515½	541,114½
COMPARISON.									
Total for corresponding week of previous year ... ..	244,910	2,42,307 5 5	20,86,775 0	4,43,858 13 6	15,324 12 0	7,01,300 15 8	72,708	86,215	158,923
Per mile of railway correspond- ing week of previous year ...	.....	150 7 3	.....	275 9 8	9 8 3	435 9 2	.....	.....	.....
Total for corresponding 3½ weeks of previous year ... ..	669,464½	8,00,865 6 10	73,38,792 20	15,71,380 1 2	51,855 13 0	24,24,337 5 0	240,046	314,058	554,104

\* The increase is chiefly due to movements of pilgrims.

## TARKESSUR BRANCH RAILWAY.

*Approximate Return of Traffic for week ended 22nd July 1893, on 22½ miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchan- dise.	Total.
Total traffic for the week ...	17,387	Rs. A. P. 4,060 0 0	Mds. Rs. 20,079 30	Rs. A. P. 489 15 0	Rs. A. P. 12 0 0	Rs. A. P. 4,500 15 0	880	79	959
Or per mile of railway ...	.....	182 0 10	.....	10 11 8	0 8 7	202 11 1	.....	.....	.....
For previous 2½ week of half- year ... ..	30,381	8,807 2 0	10,736 10	387 4 0	24 0 0	9,278 6 0	1,013	177	2,090
Total for 3½ weeks ...	53,768	12,928 2 0	30,816 0	826 3 0	36 0 0	13,788 5 0	2,892	256	3,038
COMPARISON.									
Total for corresponding week of previous year ... ..	16,567	3,918 2 3	5,321 20	247 3 0	9 2 0	4,174 7 3	911	57	968
Per mile of railway correspond- ing week of previous year ...	.....	176 1 6	.....	11 1 9	0 6 7	187 9 10	.....	.....	.....
Total for corresponding 3½ weeks of previous year ...	77,137	18,421 2 4	21,116 20	829 15 0	28 13 0	19,279 14 4	8,082	196	3,278

## DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for week ended 22nd July 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	18,439	17,199 14 0	27,932 20	5,477 13 0	42 0 0	18,010 14 0	6,965	2,508	8,513
Or per mile of railway ...	...	77 6 3	...	33 15 0	0 4 2	111 9 5	...	...	...
For previous 2½ week of half-year ...	45,596	28,531 15 0	87,612 10	12,970 0 0	74 0 0	44,589 15 0	15,107	5,998½	19,105½
Total for 3½ weeks ...	62,035	41,077 13 0	1,15,514 30	18,147 15 0	116 0 0	70,591 10 0	19,112	8,506½	27,618½
COMPARISON.									
Total for corresponding week of previous year ...	17,017½	12,020 3 9	41,441 10	7,075 15 6	59 13 0	19,148 0 3	6,437	2,543	8,980
Per mile of railway corresponding week of previous year ...	...	74 7 7	...	43 13 7	0 5 0	118 10 2	...	...	...
Total for corresponding 3½ weeks of previous year ...	56,230½	38,115 9 10	1,32,618 0	20,750 8 6	150 11 9	63,627 1 1	20,706	8,621	29,327

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. P., DACCA, K.-D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for the week ended 22nd July 1893, on 777 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	151,859	67,559 0 0	4,53,459 0	94,510 0 0	11,810 0 0	1,73,889 0 0	27,700	24,024	51,724
Or per mile of railway ...	195	87 0 0	584 0	123 0 0	15 0 0	221 0 0	...	...	...
For previous 2½ week of half-year ...	388,470	1,54,700 0 0	11,99,160 0	1,71,830 0 0	22,370 0 0	3,49,500 0 0	58,813	59,701	119,514
Total for 3 weeks ...	540,330	2,22,230 0 0	16,52,610 0	2,66,340 0 0	34,180 0 0	5,23,380 0 0	86,513	74,725	161,238
COMPARISON.									
Total for corresponding week of previous year ...	132,854	59,041 0 0	4,80,825 0	1,01,294 0 0	11,613 0 0	1,71,978 0 0	26,622	29,579	56,201
Per mile of railway corresponding week of previous year ...	176	76 0 0	619 0	130 0 0	15 0 0	221 0 0	...	...	...
Total to corresponding date of previous year ...	510,819	2,04,832 0 0	13,59,709 0	2,67,520 0 0	37,130 0 0	5,05,182 0 0	89,436	91,245	180,741

\* Excluding steamer earnings.

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for the week ended 22nd July 1893, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	31,946	9,020 0 0	84,930 0	2,440 0 0	240 0 0	12,600 0 0	3,918	1,754	5,672
Or per mile of railway ...	256	70 0 0	679 0	20 0 0	2 0 0	101 0 0	...	...	...
For previous 2½ weeks of half-year ...	71,700	23,500 0 0	89,090 0	5,070 0 0	120 0 0	29,690 0 0	8,808	3,391	12,199
Total for 3 weeks ...	103,646	33,420 0 0	1,24,840 0	8,410 0 0	360 0 0	42,180 0 0	12,726	5,145	17,871
COMPARISON.									
Total for corresponding week of previous year ...	26,565	8,030 0 0	49,416 0	2,873 0 0	141 0 0	11,044 0 0	3,918	1,754	5,672
Per mile of railway corresponding week of previous year ...	213	60 0 0	395 0	23 0 0	1 0 0	88 0 0	...	...	...
Total to corresponding date of previous year ...	104,067	31,802 0 0	1,29,477 0	8,083 0 0	411 0 0	30,646 0 0	13,316	6,355	19,671

## DACCA STATE RAILWAY.

*Approximate Return of Traffic for the week ended 22nd July 1893, on 86 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	14,810	4,680 0 0	12,180 0	900 0 0	150 0 0	5,730 0 0	2,487	737	3,224
Or per mile of railway ...	170	54 0 0	142 0	11 0 0	2 0 0	67 0 0	...	...	...
For previous 3 weeks of half-year ...	37,600	10,300 0 0	22,950 0	1,910 0 0	100 0 0	12,100 0 0	5,338	1,580	6,918
Total for 3 weeks ...	52,370	14,080 0 0	35,130 0	2,810 0 0	310 0 0	18,130 0 0	7,825	2,317	10,142
COMPARISON.									
Total for corresponding week of previous year ...	14,701	4,695 0 0	9,297 0	743 0 0	327 0 0	5,763 0 0	2,634	650	3,284
Per mile of railway corresponding week of previous year ...	171	54 0 0	108 0	9 0 0	4 0 0	67 0 0	...	...	...
Total for corresponding date of previous year ...	38,832	15,257 0 0	31,550 0	2,272 0 0	500 0 0	18,029 0 0	8,613	2,130	10,743

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

Approximate earnings for the week ending 22nd July 1893	...	Rs. A. P.
Corresponding period of 1892	...	12,023 0 0
Increase	...	11,916 0 0
Receipts per mile for the week ending 22nd July 1893	...	235 11 11
Corresponding period of 1892	...	233 10 6
Increase	...	2 1 5
Receipts from 1st to 22nd July 1893	...	38,061 0 0
Corresponding period of 1892	...	34,458 0 0
Increase	...	3,603 0 0





# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, AUGUST 9, 1893.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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## WORKING OF THE FIRE-BRIGADE IN THE TOWN AND SUBURBS OF CALCUTTA AND IN THE MUNICIPALITY OF HOWRAH DURING THE YEAR 1892-93.

The following report is published for general information.

J. A. BOURDILLON,  
*Offg. Secy. to the Govt. of Bengal.*

No. 5318, dated Calcutta, the 14th July 1893.

From—SIR JOHN LAMBERT, K.C.I.E., Commissioner of Police,  
To—The Secretary to the Government of Bengal, Municipal Department.

I HAVE the honour to submit, for the information of Government, a report on the working of the fire-brigade in the town and suburbs of Calcutta and in the Municipality of Howrah for the year 1892-93.

2. During the year 23 fires occurred. The brigade was in attendance at 20 of these fires. Of the remaining 3, 1 was extinguished by the local police and 2 by the people of the locality.

3. The estimated value of property destroyed was Rs. 1,42,529. At two busti fires in the suburbs three persons lost their lives.

4. No fire was reported to have occurred in any building licensed under Act IV of 1883.

5. The following is a brief notice of the three most serious fires :—

I.—On January, the 11th, at 3-45 p.m., a fire broke out on the steamer *Mirzapore* and flat No. 10 in moorings off Nimtolla Ghât. The engines *Percy* and *Bengal* assisted the Port Commissioners' floating engine, and the fire was extinguished by 8 p.m. The loss of cargo consisting of jute and betel-nuts was valued at Rs. 9,500. The damage done to the vessels was estimated at Rs. 1,00,600.

II.—On May, the 20th, a large *busti* fire broke out in Tollygunge and lasted from 2-20 P.M. till midnight. Two hundred and fifty huts, together with household property, valued at Rs. 20,040, were destroyed. There was a strong wind blowing at the time, which caused the fire to spread rapidly. The brigade arrived at the spot with engine *Gunga* at 3-30 P.M., but could not work, as there were no tanks within reach of the fire. Eventually a road was cut from the foot of Tollygung bridge to Tolly's Nullah, a distance of about 50 yards, and the engine was brought into play at 4 P.M.

III.—On December, 27th, the cargo of the jute-laden ship *Dumbarton Rock* caught fire in the river while she was putting to sea. The ship was brought back to Matiabrooj, and four men of the brigade were sent on board to render assistance. The fire was caused by the 2nd officer having accidentally dropped a lantern in the hold, and the cargo was partially destroyed. The extent of damage was not ascertained.

6. During the year there were five prosecutions under the Explosives Act IV of 1884—two in the town and three in the suburbs. Convictions were obtained in all five cases.

7. A memorandum of the fires which occurred and a statement showing receipts and expenditure on behalf of the brigade are enclosed.

*Memorandum of fires in the Town and Suburbs of Calcutta and in Howrah from 1st April 1892 to 31st March 1893.*

Number.	Date.	Locality with section letter.	Duration of fire.	Approximate value of property destroyed.	REMARKS SHOWING NATURE OF DAMAGE DONE, &c.
<b>Town.</b>					
1	13th April 1892	Free School Street, section M., Town.	3 hours and 45 minutes	2,500	Six tiled houses containing straw, wood and grain.
2	6th November "	Row Bazar Street, section K., Town.	1½ hours	1,000	A one-storied brick building containing a poddar's shop and a bikreewallah's shop.
3	27th December "	On board the ship <i>Dumbarton Rock</i> , Port Commissioners' Docks.	6 days	Unknown	Fire in the hold of ship <i>Dumbarton Rock</i> laden with jute.
4	11th January 1893	On board the steamer <i>Mirzapore</i> and flat No. 10, 1st Division, River Police.	4½ hours	1,02,500	1,583 bundles of jute and 203 boxes of betel-nuts and damage to steamers.
5	11th "	Ezra Street, section G., Town.	6 hours and 55 minutes	3,000	A range of godowns containing coconut fibre and coir rope.
6	1st March "	Chitpore Road, section F., Town	2 hours	400	Four tiled houses.
7	10th "	Ahmutolla, section B., Town	1 hour. Extinguished by the local police.	50	Jute stored in a brick godown.
Total 7 fires			Total	1,10,450	
<b>Suburbs.</b>					
1	10th April 1892	Garden Reach, section N., Suburbs.	2½ hours	100	One golputta house.
2	20th May "	Comedian Bagan, Ekbalpore, Southern Division, Suburbs.	2½ "	3,000	Fifty tiled houses and household utensils, Bhak Buxoo and his wife Johannee, both aged and blind, were burnt to death.
3	20th "	Tollygunge, Southern Division, Suburbs.	9 hours and 40 minutes	20,040	Two hundred and fifty huts and household property.
4	18th October "	Goolpara, Ekbalpore	1 hour	800	Five tiled houses.
5	23rd November "	Wataanj, section M., Suburbs	40 minutes	30	One cow-shed.
6	9th January 1893	Bishop's College, Baliganj Road, section H., Suburbs.	1 hour and 40 minutes	1,000	A range of buildings in the compound of Bishop's College.
7	22nd "	Dhulyebagan, section K., Suburbs	1 hour and 15 minutes	200	Six thatched huts. One Adhore Chunder Ghose, who was lying drunk in one of the huts, was severely burnt and admitted to the Alipore Hospital, where he died of tetanus on the 1st February 1893.
8	5th February "	Tolly's Nullah, Wataanj, section M., Suburbs.	1½ hours	100	A boat laden with straw.
9	11th "	Pal's Lane, Shambazar, section B., Suburbs.	2 hours and 15 minutes	80	Two golputta huts and two tiled huts
10	16th "	Nawabputty, section B., Suburbs	15 minutes	4	Roof of a golputta hut. Inspectors Wood and Marklew went to the spot. The fire was put out by the people of the locality.
11	26th "	Kidderpore, section M., Suburbs	2 hours and 15 minutes	250	Four tiled cowsheds, a pile of straw and four cows.
12	23rd March "	Baliaghatta Road, section E., Suburbs.	30 minutes	15	One tiled hut. The fire was extinguished by the residents of the locality.
Total 12 fires			Total	25,119	
<b>Howrah.</b>					
1	9th April 1892	Kekrapara, Chatterji's Hat out-post, Sibpur thana.	2½ hours	60	Three small stacks of straw.
2	14th November "	Choralaben Road, Sibpur thana	1 hour and 25 minutes	100	Three thatched houses.
3	3rd February 1893	Khetor Mitter's Lane, Golabaree thana.	45 minutes	100	One large tiled house.
4	26th March "	Bakserah, a village in Sibpur thana.	6 hours	700	Twelve tiled huts.
Total 4 fires			Total	960	
Total number of fires at which the brigade were in attendance.				20	
Extinguished by local police				1	
Extinguished by people of locality				2	
Total				23	GRAND TOTAL ... 1,42,529



*Statement showing the actual Receipts and Disbursements of the Fire-brigade Fund for the year ending 31st March 1893.*

RECEIPTS.	Budget esti- mate for 1892-93.	Actual receipts for 1892-93.	Increase.	Decrease.	REMARKS.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Balance on 31st March 1892 ... ..	10,413 0 0	10,413 10 7	0 10 7	...	
Contribution of 80 per cent. from Town Corporation ...	22,520 0 0	23,546 10 4	726 10 4	...	
Ditto ditto from Cossipur and Chitpur Municipality.	26,400 0 0	27,768 2 6	1,368 2 6	...	
Contribution of 80 per cent. from Manicktolla Municipality.	1,200 0 0	627 9 6	...	572 6 6	
Contribution of 80 per cent. from Howrah Municipality	5,000 0 0	4,900 0 0	...	40 0 0	
Fines under the Jute Warehouse Act	100 0 0	...	...	100 0 0	
Fees for licenses for letting off fire-works in Town	30 0 0	60 0 0	30 0 0	...	
Ditto ditto ditto in Suburbs	200 0 0	...	...	200 0 0	
Hire of fire-engines	...	...	...	...	
Sale proceeds of hand-engine	3,500 0 0	4,472 0 0	972 0 0	...	
Fees under Petroleum Act	200 0 0	112 0 0	...	88 0 0	
Fines under ditto	...	302 8 0	302 8 0	...	
Rent of telephone lines	...	...	...	...	
<b>Total</b> ..	59,150 0 0	61,546 14 4	3,397 4 10	1,000 0 0	

PAYMENTS.	Budget esti- mate for 1892-93.	Actual charges for 1892-93.	Increase.	Decrease.	REMARKS.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
<i>Establishment at Lall Bazar.</i>					
1 Superintendent, at Rs. 250	3,000 0 0	2,900 0 0	...	100 0 0	
1 Chief Engineer, .. 200	2,400 0 0	2,400 0 0	...	...	
1 Engineer, .. 100	1,200 0 0	579 1 9	...	604 7 5	
1 Driver, .. 150	1,800 0 0	1,800 0 0	...	...	
1 Fireman, .. 10	120 0 0	120 0 0	...	...	
1 Tindal, .. 20	240 0 0	190 0 0	...	50 0 0	
1 Do., .. 16	192 0 0	120 0 0	...	30 0 0	
1 Do., .. 10	120 0 0	120 0 0	...	...	
7 Khalassee .. 8 each	672 0 0	627 0 0	...	45 0 0	
11 Ditto .. 7 ..	924 0 0	987 0 0	63 0 0	...	
11 Syces, .. 7 ..	924 0 0	924 0 0	...	...	
Personal allowance of 3 tindals	72 0 0	58 0 0	...	14 0 0	
1 Writer .. ..	240 0 0	...	...	240 0 0	
<b>Total</b> ..	11,404 0 0	10,883 8 7	63 0 0	1,083 7 5	
<i>Contingencies.</i>					
Feed and keep of horses, including shoeing, veterinary attendance, repairing harness, &c.	3,500 0 0	3,038 8 6	438 8 6	...	
Lighting, engineer's and driver's quarters and the fire-brigade stables.	360 0 0	360 0 0	...	...	
Accoutrements for the European members of the fire brigade supplied every year.	1,200 0 0	1,840 2 0	550 2 0	...	
Extra allowance of European members of the brigade, at Rs. 5 each for attendance at fires.	1,500 0 0	625 0 0	...	875 0 0	
Rent .. ..	600 0 0	605 5 4	95 5 4	...	
Pension .. ..	1,300 0 0	1,420 6 2	38 6 2	...	
Gratuities to persons giving notice of fires	100 0 0	...	...	100 0 0	
Cost of new hose, reel and hand carts	12,616 0 0	12,150 0 6	...	465 15 6	
Hand cart for conveying coal	300 0 0	...	...	300 0 0	
Canvas hose .. ..	2,000 0 0	1,632 0 0	...	468 0 0	
Purchase of horses .. ..	1,200 0 0	1,908 0 0	708 0 0	...	
Harness for horses .. ..	500 0 0	200 0 0	...	300 0 0	
Repairs of buildings .. ..	2,000 0 0	1,279 1 6	...	720 14 6	
Implements .. ..	1,000 0 0	1,252 0 0	252 0 0	...	
Repairs of engines and break-vans	1,500 0 0	1,165 12 0	...	334 4 0	
Maintenance of tel-graph lines	3,500 0 0	4,030 0 0	530 0 0	...	
Petty contingencies, including coal, wood, &c.	2,000 0 0	3,128 12 0	1,128 12 0	...	
<b>Total</b> ..	33,357 0 0	34,634 0 0	3,141 2 0	3,504 2 0	
<i>Howrah Establishment.</i>					
Superintendent .. ..	...	100 0 0	100 0 0	...	
Absentee allowance of Superintendent	...	...	...	...	
1 Engineer, at Rs. 138	1,656 0 0	1,656 0 0	...	...	
1 Tindal, .. 10	120 0 0	120 0 0	...	...	
1 Fireman, .. 10	120 0 0	120 0 0	...	...	
3 Tindals .. 8 each	248 0 0	248 0 0	...	...	
7 Khalassee .. 8 ..	672 0 0	297 0 0	...	375 0 0	
5 Ditto .. 7 ..	420 0 0	1,305 3 2	785 3 2	...	
6 Ditto .. 7 ..	804 0 0	...	...	504 0 0	
1 Engine-driver .. 10	120 0 0	120 0 0	...	...	
3 Syces .. 7 each	252 0 0	252 0 0	...	...	
<b>Total</b> ..	4,162 0 0	4,168 3 2	885 3 2	879 0 0	

PAYMENTS.	Budget estimate for 1892-93.	Actual charges for 1892-93.	Increase.	Decrease.	REMARKS.
<i>Contingencies.</i>	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Feed and keep of horses, including shoeing, veterinary attendance, repairs of harness, &c.	750 0 0	946 0 8	196 0 8	.....	
Clothing	50 0 0	50 0 0	30 0 0	.....	
Rewards to informers giving notice of fires	500 0 0	1,431 5 0	931 5 0	50 0 0	
Repairs of engines and break-vans	266 0 0	68 0 0	.....	188 0 0	
Steam engine hose and gear	660 0 0	700 0 0	100 0 0	.....	
Allowance for attendance at fires	300 0 0	.....	.....	300 0 0	
Purchase of horses	524 0 0	655 3 9	131 3 9	.....	
Harness for horses	500 0 0	564 8 9	64 8 9	.....	
Howe cart	.....	.....	.....	.....	
Repairs and construction of buildings and look-out	.....	.....	.....	.....	
Contingencies, oil, soap, cotton waste, &c.	.....	.....	.....	.....	
Total	3,424 0 0	4,989 2 0	1,453 2 0	498 0 0	
<i>Dhowanipore.</i>					
2 Tindals, at Rs. 10 each	240 0 0	240 0 0	.....	.....	
3 Khalsasees " 8 "	248 0 0	237 0 0	.....	51 0 0	
9 Ditto " 7 "	756 0 0	754 0 0	.....	.....	
Total	1,244 0 0	1,231 0 0	.....	51 0 0	
<i>Walgunge.</i>					
2 Tindals, at Rs. 10 each	240 0 0	240 0 0	.....	.....	
1 Khalsasee " 8 "	96 0 0	87 0 0	.....	9 0 0	
11 Khalsasees " 7 "	924 0 0	924 0 0	.....	.....	
Total	1,260 0 0	1,251 0 0	.....	9 0 0	
<i>Palmer's bridge.</i>					
2 Tindals, at Rs. 10 each	240 0 0	240 0 0	.....	.....	
2 Khalsasees " 8 "	192 0 0	150 0 0	.....	42 0 0	
10 Ditto " 7 "	840 0 0	840 0 0	.....	.....	
Total	1,272 0 0	1,230 0 0	.....	42 0 0	
<i>Chitpore.</i>					
1 Engineer, at Rs. 128	1,512 0 0	1,512 0 0	.....	.....	
Acting Howansee	240 0 0	149 0 4	149 6 4	.....	
2 Tindals and Firemen " 10 each	120 0 0	120 0 0	.....	.....	
1 Tindal " 10	480 0 0	275 0 0	.....	235 0 0	
5 Khalsasees " 8 each	588 0 0	777 0 0	189 0 0	.....	
7 Ditto " 7 "	352 0 0	252 0 0	.....	.....	
3 Sycees " 7 "	.....	.....	.....	.....	
Total	3,192 0 0	3,335 6 4	338 6 4	255 0 0	
<i>Contingencies.</i>					
Feed and keep of horses	750 0 0	959 14 6	209 14 6	.....	
Repairs of engines and break-vans	400 0 0	140 4 0	.....	259 12 0	
Steam-engine hose and gear	1,000 0 0	.....	.....	1,000 0 0	
Purchase of horses	600 0 0	268 3 3	.....	331 12 9	
Harness for horses	300 0 0	.....	.....	300 0 0	
Petty contingencies, including coal, oil, &c.	500 0 0	393 8 3	.....	106 7 9	
Repairs of buildings	1,000 0 0	570 8 0	.....	423 8 0	
Total	4,550 0 0	2,338 6 0	2,091 14 6	2,421 8 6	
Travelling allowance for inspecting petroleum depôts	360 0 0	360 0 0	.....	.....	
Balance on 31st March 1892	66,755 0 0	64,082 10 1	6,090 12 0	8,768 1 11	
	2,808 0 0	7,877 14 10	.....	.....	
Rs. A. P.					
Amounts in the hand of the Accountant-General, Bengal, in deposit account	7,377 14 10	.....	.....	.....	
<i>Amount recoverable.</i>					
Amount advanced to Superintendent, Reserve force, for feed and keep of horses undisturbed	500 0 0	.....	.....	.....	
Total	7,877 14 10	69,563 0 0	71,960 8 11	.....	

CALCUTTA POLICE OFFICE,  
The 14th July 1893.

H. PAGET,  
Offg. Deputy Commissioner of Police.

WORKING OF THE BENGAL JUTE WAREHOUSE AND FIRE-BRIGADE ACT IV OF 1883 IN THE COSSIPORE-CHITPUR AND MANIKTOLA MUNICIPALITIES DURING THE YEAR 1892-93.

The 3rd August 1893.—The following reports are published for general information.

J. A. BOURDILLON,  
Offg. Secy. to the Govt. of Bengal.

No. 58M.M., dated Calcutta, the 13th July 1893.

From—K. V. WESIMACOTT, Esq., Commissioner of the Presidency Division,  
To—The Secretary to the Government of Bengal, Municipal Department.

I HAVE the honour to submit herewith copies of the reports on the working of the Bengal Jute Warehouse and Fire-brigade Act IV of 1883 in the Cossipore-Chitpur and Maniktola Municipalities during the year 1892-93. The reports do not call for any special remarks.

No. 200, dated Barrackpore, the 13th May 1893.

From—RAI GOPAL CHANDRA MOOKERJEE BAHADUR, C.E., Chairman, Cossipore and Chitpur Municipality,  
To—The Magistrate, 24-Parganas.

I HAVE the honour to submit for your information the following report on the working of jute warehouses and fire-brigade for the year 1892-93.

1. Management of the fire-brigade in Calcutta and the suburbs are in the hands of the Commissioner of Police, Calcutta, and that officer submits his annual report direct to Government.

2. As regards the working of jute warehouses, the Commissioners of this Municipality realized on account of licenses Rs. 34,809-11 as detailed below. Out of this amount 80 per cent., viz., Rs. 27,766-2-6, was made over to the Commissioner of Police, Calcutta, Rs. 102 refunded (which was paid under protest), and the balance at 20 per cent., i.e., Rs. 6,941-8-6, was credited to the Municipal fund as per Act IV of 1883 :—

	Rs.	A.	P.
No. 12, Jute Press-house with attached godowns, at the rate of 10 per cent. on rental valuation of holdings	23,644	13	0
No. 34, Jute godowns, rental valuation of which Rs. 500 and upwards per annum, at the rate of 10 per cent. on rental valuation of holdings	9,198	14	0
No. 29, Jute godowns, rental valuation of which is under Rs. 500 per annum, at the consolidated rate of Rs. 50 for each godown	1,450	0	0
No. 1, Cotton strong godown, at the rate of 10 per cent. on rental valuation of the holding	66	0	0
No. 9, Ropery strong godown, at the consolidated rate of Rs. 50 per each ropery	450	0	0
Total	34,809	11	0

3. I beg further to report for your information that the budget estimate submitted by the Commissioner of Police for the year 1892-93 for the maintenance of the fire-brigade at Chitpur was as follows :—

	Rs.
Establishment	3,192
Contingencies	4,550
Total	7,742

No. 154, dated Manicktollah, the 1st July 1893.

From—G. C. RAY, Esq., Vice-Chairman, Maniktola Municipality,  
To—The Magistrate of the 24-Parganas.

WITH reference to your reminder B, dated the 27th June 1893, I have the honour to submit the following report on the working of the jute warehouses within this municipality and Fire-Brigade Act IV of 1883 for the year 1892-93.

2. There were eight jute warehouses against six of the previous year, and the license fees received from them under the Act amounted to Rs. 644, against Rs. 784-8 of the preceding year. The decrease in the receipt is due partly to the fact that the Soora Jute Mill Company paid their license fees of Rs. 120 for the year under report during the year 1891-92 (*i.e.*), on the 28th March 1891. Most of the godowns for the storage of jute are pucca, and are situated on the eastern or the left bank of the Circular Canal, and possess the advantage of importing and exporting jute through the canal which communicates with the eastern districts on one side and the Calcutta port on the other. It has been roughly estimated that about 4 lakhs of maunds of jute were stored during the year; the quantity imported was less than in the previous year. There was one jute rope manufactory within the municipality and a jute mill at Soora, the proprietor of which is a Marwaree gentleman.

3. Rupees 682-9-6 were paid to the Commissioner of Police on account of the maintenance of the fire-brigade. There were no fires this year within the limits of this Municipality.

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## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 5th August 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL.			
BURDWAN DIV.	1 Burdwan Aug. 5, '93	1.11	Weather—seasonable. Transplantation nearly completed. <i>Aus</i> , jute and sugar-cane doing well. Prices of common rice :—
	Kalna ...	1.63	
	Katwa ...	1.41	
	Raniganj ...	2.79	
			Srs. } per rupee.
	Burdwan ...	...	10 to 12
	Kalna ...	...	9 to 13
	Katwa ...	...	11½
	Raniganj ...	...	13
	2 Bankura .. 5, '93	3.38	Weather—cloudy with occasional showers. Transplantation of <i>aman</i> rice still going on. Prospects of <i>aus</i> rice good. Prices of common rice :—
Vishnupur ...	3.77		
3 Birbhum .. 5, '93	2.50	Weather—seasonable. Transplantation of paddy seedlings nearly finished. Prospects continue good. Common rice sells at from 11 to 14 seers per rupee.	
Rampur Hât ...	4.70		
4 Midnapore .. 5, '93	6.84	The total rainfall has been very heavy as the figures show. It has, however, come in very heavy showers, and there has been much sunshine. This is the fourth cyclone this year. The river is in high flood again, but if this is the last flood, the damage will not be irreparable. Transplanting is going on throughout the district, and so far there is no reason to take a gloomy view of the prospects. Prices of common rice :—	
		Srs. } per rupee.	
Sadar ...	...	11	
Contai ...	...	12	
Tamluk ...	...	10	
Ghatal ...	...	11	
5 Hooghly .. 5, '93	4.70	Weather—hot and showery. Prospects of all crops good except in a very few villages on the lowest lands where the flood water is not yet fully drained out. It is hoped that rice will be transplanted even on these by the 15th of the month. Prices of common rice :—	
Serampore ...	2.68		
		Srs. } per rupee.	
Sadar ...	...	10 to 11	
Serampore ...	...	10 to 11½	
Jahanabad ...	...	9 to 12	
6 Howrah .. 5, '93	2.80	Weather—seasonable. Transplantation of paddy on high lands continues. Condition of cattle good. Fodder and water-supply sufficient. Prices of rice 9½ to 10 seers per rupee.	
Ulubaria ...	1.42		
7 24 Parganas .. 5, '93	1.73	Weather—seasonable. Transplantation of <i>aman</i> going on. <i>Aus</i> and jute injured by excess of rain. A considerable portion of the paddy lands in thana Bankipore is still under water. Prospects not favourable in southern portion of district. Prices of common rice :—	
		Srs. a. } per rupee.	
Sadar ...	...	10 to 11 8	
Diamond Harbour ...	...	11 0½	
Barasat ...	...	9 8	
Basirhat ...	...	10 0	
8 Nadia .. 5, '93	1.53	Weather—hot with occasional showers. Crops doing well. Harvest of early rice and jute proceeding. Transplantation of <i>aman</i> rice going on. Rivers falling. Prices stationary.	
Kushtia ...	1.07		
Meherpur ...	1.84		
Choudanga ...	1.67		
Ranaghat ...	2.78		
9 Khulna .. 5, '93	2.30	Weather—seasonable. Harvesting of <i>aus</i> has commenced; outturn estimated at about 10 annas. <i>Aman</i> is being vigorously transplanted; prospects generally fair. Jute has been damaged to some extent by the rain. Coarse rice selling at 9 to 10 seers per rupee. Fodder sufficient.	
Bagerhat ...	2.87		
Satkhira ...	1.52		
10 Jessore .. 5, '93	1.25	Weather—hot and cloudy with occasional showers. Harvesting of <i>aus</i> and jute going on. Manufacture of indigo nearly completed. Cattle-disease reported from Salkhiya and Manirampur. Fodder sufficient except in Mahmudpur. Prices steady.	
Jhenida ...	1.25		
Magura ...	1.53		
Narail ...	0.96		
Bangson ...	1.07		
11 Murshidabad .. 5, '93	4.68	Weather—seasonable. Harvesting of <i>bladoi</i> still going on. Jute and mulberry doing well. Outturn of indigo said to be poor this year. Fodder sufficient for cattle. Coarse rice sells at 11 seers per rupee.	

No.	District and date of return.	Rainfall at Sadar Station in inches	Character of the weather and state and prospects of the crops.
<b>BENGAL—concl'd.</b>			
CHITTAGONG DIVN.	12 Chittagong Aug. 5, '96	5.34	Weather—seasonable. <i>Aus</i> is being harvested. <i>Aman</i> is still being transplanted. Prospects not good. Prices rising. Condition of cattle generally good. Supply of fodder sufficient.
	13 Noakhali „ 5, '96	4.62	Weather—showery with occasional fine weather. Harvesting of <i>aus</i> and transplanting of <i>aman</i> continue. Prospects unfavourable. Cattle-disease prevailing throughout the district. Common rice selling at 10 seers per rupee.
	14 Tippera „ 5, '93	1.56	Weather—seasonable. <i>Aus</i> crop on low lands almost totally destroyed. About 10 annas of the crop harvested. Chillies destroyed. <i>Til</i> much damaged, and also jute. <i>Aman</i> promises well in most parts. Fodder scarce. Country under water.
	15 Chittagong Hill Tracts. „ 4, '93	1.38	Weather—hot and occasionally cloudy. Paddy plants in <i>jum</i> and early plough-paddy ( <i>aus</i> ) progressing. Condition of cattle generally good. Common rice (coarse) selling at 10 seers per rupee.
DACCA DIVN.	16 Dacca „ 5, '93	3.16	Weather—cloudy and rainy. Prospects of standing crops fair. Harvesting of <i>aus</i> and jute going on. The former has been partially damaged by sudden rise of water. Common rice selling at 9 to 10½ seers per rupee. Fodder available. No cattle-disease.
	17 Faridpur „ 5, '93	2.54	Weather—seasonable. <i>Aus</i> and jute are being cut. <i>Aus</i> has failed in most parts of the district and the outturn is poor. The condition of jute is no better. <i>Aman</i> on high lands is hopeful, but on low lands much damaged by rain and rising of the rivers. Common rice sells at 10 to 12 seers per rupee. Condition of cattle good generally, but cattle-disease continues in thanas Palong and Shibchar in Madaripur.
	Goalundo Madaripur ...	2.41	
	... 0.88	0.88	
	18 Backergunge „ 5, '93	3.43	Weather—seasonable. State and prospects of crops fair except in a small tract in the centre of the hills where the deep water has destroyed the crops. Common rice is being sold from 8 to 12 seers per rupee. Fodder and water sufficient.
	Pirojpur ...	3.28	
	Patuakhali ...	5.54	
RAJSHAHI DIVN.	Bhola ...	2.90	Weather—cloudy and rainy. <i>Aus</i> and jute are being harvested. Unusually heavy rainfall has caused much damage to the <i>aus</i> crop in the Sadar, Kishorganj and Netrokona subdivisions. Transplantation of <i>aman</i> has also been impeded in those subdivisions. Common rice selling at from 9½ to 11 seers per rupee. Condition of cattle good. Supply of fodder and water sufficient.
	19 Mymensingh „ 5, '93	2.39	
	... 0.98	0.98	
	20 Dinajpur „ 5, '93	0.80	Weather—hot; occasionally cloudy. Prospects of standing crops very good. Transplantation of <i>haimanti</i> still going on. Cutting of jute continues. Price of rice at Sadar 12½ seers per rupee; that at Thakurgaon stationary. Cattle continue to be in good condition. Fodder and drinking water plentiful.
	Thakurgaon ...	0.98	
	... 0.96	0.96	
	21 Rajshahi „ 5, '93	2.82	Weather—seasonable; very heavy showers fall now and then. The condition of crops has improved owing to the drier weather. Water and fodder-supply ample; there is no cattle-disease. Price of rice varies from 10 to 13 seers per rupee.
	Nator ...	0.63	
	Naugaon ...	0.96	
RAJSHAHI DIVN.	22 Rangpur „ 5, '93	0.58	Weather—sultry with occasional rain. Harvesting of <i>aus</i> and jute going on. <i>Aman</i> is being transplanted. Price of common rice from 11 to 13 seers per rupee.
	Gaibanda ...	3.75	
	Kurigan ...	6.83	
	Nilphamari ...	1.83	Weather—changeable and unsettled. Transplantation of <i>aman</i> still goes on. Cutting of jute has commenced. General prospects unchanged. Common rice sells at 10½ seers per rupee. Fodder and water sufficient.
	23 Bogra „ 5, '93	0.19	
	Sherpur ...	4.31	
	Naukhila ...	2.45	
	24 Pabna „ 5, '93	1.31	Weather—cloudy and cool. Rivers rising. It rained more or less all the days in the week. <i>Aus</i> and jute are being cut. Common rice sells at 11 seers per rupee at Pabna and Rs. 3½ to Rs. 4 per maund at Sirajganj. Water and fodder sufficient.
	25 Darazindang „ 5, '93	6.10	
	Sihpuri ...	4.04	
RAJSHAHI DIVN.	26 Jalpaiguri „ 5, '93	8.76	Weather—cloudy and hot. Harvesting of <i>bhadai</i> still going on. Transplantation of <i>haimanti</i> in full swing. Prospects of jute favourable. Common rice sells at 11 seers per rupee. Fodder and water sufficient. No cattle-disease.

Srs.  
9  
11 } per rupee.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR.</b>			
<b>BHAGALPUR DIV.</b>	27 Monghyr July 5, '93	4.35	Weather—cloudy with occasional rain. Prospects of <i>bhadol</i> on high lands good; low land crops partly damaged. Transplantation of <i>aghani</i> crop going on. Sugarcane doing well. Indigo is being harvested. Fodder and water plentiful. Small-pox among cattle reported from Nawadi. Prices of common rice:—
	Begusarai ...	2.02	
	Jamui ...	0.38	
			Srs. 13 to 14 } per rupee.
	28 Bhagalpur .. 5, '93	1.47	Transplantation actively in progress and will be finished soon. There is every prospect of an excellent winter rice crop. Common rice 13 seers 14 chitaks per rupee.
	Banka ...	0.82	
	Supaul ..	1.66	
	29 Purnea .. 5, '93	2.20	Weather—cloudy with showers and intervals of sun. <i>Bhadol</i> ripening, and the recent weather having been suitable, a full outturn is expected except where floods did damage in Amour, &c. <i>Aghani</i> transplantation in full swing. Weather propitious. Jute doing well. Some cattle-disease in parts. Prices inclined to fall.
	Kishanganj ...	1.12	
	Araria ...	1.48	
	30 Malda .. 5, '93	2.58	Weather—hot and occasionally cloudy. <i>Bhadol</i> paddy being harvested. The outturn is expected to be an average one. Transplanting of winter rice is in progress. The temporary break in the rains has improved the condition of all standing crops. Ordinary rice selling at from 11 to 16 seers per rupee. Fodder and water sufficient.
	31 Sonthal Parganas .. 5, '93	6.01	Weather—rainy almost throughout the week; now clear. Break in the rains has done some good to the <i>bhadol</i> crop. Transplantation of paddy nearly completed. Prices stationary. Water and fodder sufficient.
	Droghur ...	3.81	
	Godda ...	1.62	
	Jamtara ...	4.23	
	Pakur ...	2.92	
	Rajmahal ...	0.97	
<b>PATNA DIVISION.</b>	32 Patna .. 5, '93	1.42	Weather—cloudy and hot with occasional showers. Prospects of <i>bhadol</i> unfavourably affected by continued rain, but it is being weeded. Paddy transplantation in progress. Harvesting of <i>cheena</i> has commenced. Prices of common rice:—
	Barh ...	0.35	
	Bihar ...	0.61	
	Dinapore ...	0.61	Srs. 15 } per rupee.
			Barh ... 12½ }
			Bihar ... 16 }
			Dinapore ... 13 }
	33 Gaya .. 5, '93	2.97	Weather—seasonable; rain on a few days. Paddy transplantation progressing. <i>Bhadol</i> crops not doing very well. Prices unaltered. Fodder and water-supply ample.
	Jahanabad ...	1.08	
	Nawada ...	3.86	
	Aurangabad ...	0.94	
	34 Shahabad .. 5, '93	0.69	Weather—bright sunshine alternates with showers; westerly winds prevail. <i>Bhadol</i> crops continue to promise well. <i>Aghani</i> rice is being transplanted. Fodder ample. Prices stationary.
	Buxar ...	0.40	
	Bhabhua ...	1.60	
	Sasaram ...	1.67	
	35 Darbhanga .. 5, '93	3.45	Weather—cloudy with occasional sunshine. There has been a break in the rains for the last few days. <i>Makai</i> and low land <i>marua</i> injured to a certain extent by excessive rain. Otherwise prospects continue favourable. Some damage is reported to have been done by floods to crops lying on river banks. Transplanting of rice in progress. Fodder for cattle sufficient. Prices stationary.
	Madhubani ...	3.17	
	Samastipur ...	1.40	
	36 Muzaffarpur .. 5, '93	1.61	Weather—seasonable. Transplantation of paddy plants still in progress. The Ror Gandack is in high flood and much damage is being done to the <i>makai</i> and <i>bhadol</i> crops. Some paddy also washed away. Fodder and water sufficient. No cattle-disease.
	Hojipur ...	0.55	
	Sitamarhi ...	3.18	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR—concl'd.</b>			
PATNA DIVISION—concl'd.	37 Saran Aug. 5, '93	0·87	The week has been fine with only a few showers. On the whole the crops are fair. The break in the rains is benefiting maize, but in some parts delaying transplanting of rice. Fodder and water plentiful. Prices of common rice:—  Srs. Chapra ... .. 13 } per rupee. Gopalganj ... .. 13 }
	Siwan ...	0·51	
	Gopalganj ...	0·96	
38 Champaran „ 5, '93		3·55	Weather—cloudy with occasional sunshine. Flood has somewhat damaged <i>bhadoi</i> and paddy. Prices nearly stationary. Fodder and water sufficient.
<b>ORISSA.</b>			
ORISSA DIV.	39 Cuttack „ 5, '93	8·51	Weather—cloudy with heavy showers occasionally. <i>Beali</i> in ear. <i>Sarad</i> being transplanted. Fodder-supply sufficient. Prices of common rice:—  Srs. c. Srs. c. Sadar ... .. 10 12 to 14 7 } Jajpur ... .. 15 12 to 18 6 } per rupee. Kendrapara ... .. 13 10 to 18 6 } Banki ... .. 15 12 }
	40 Puri „ 3, '93	2·94	
	Khurda ...	3·39	
41 Balasore „ 5, '93		1·91	Weather—cloudy with occasional showers. <i>Sarad</i> paddy much benefited by the late rain, especially in the eastern part of the district. <i>Beali</i> in ear and in some places ripening. Miscellaneous crops doing fairly. Prices of common rice:—  Srs. c. Srs. c. Sadar ... .. 11 13 to 17 5 } per rupee. Khurda ... .. 12 0 to 17 1 }
<b>CHOTA NAGPUR.</b>			
<i>South-West Frontier Agency.</i>			
CHOTA NAGPUR DIV.	42 Hazaribagh Aug. 5, '93	2·67	Weather—cloudy with showers of rain and intervals of sunshine. Transplantation of paddy and <i>marua</i> approaching completion. Excessive rain has done much damage to Indian-corn. Common rice 9 to 12 seers per rupee.
	Giridi ...	1·59	
	43 Lohardaga „ 5, '93	2·84	Weather—hot and cloudy with occasional showers. Transplantation of winter paddy continues. Prospects of <i>bhadoi</i> good. Common rice selling at 12 seers per rupee. Fodder and water sufficient.
	44 Palamu ...	...	Report not received.
	45 Singhbhum „ 5, '93	4·25	Weather—seasonable. Condition of the crops good everywhere. Prices of common rice:—  Srs. Ghatsilla ... .. 9 } Chaibassa ... .. 10 } per rupee. Chakradharpur ... .. 11 } Elsewhere ... .. 12 }
46 Manbhum „ 5, '93		Figures not given.	Cattle-disease on a small scale reported from Kolhan. Weather—showery; bright and warm during latter part of week. Prospects of rice crops excellent. Transplanting nearly over. Price of rice 10 to 12 seers per rupee.

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 8th August, 1893.H. H. RISLEY,  
Secy. to the Govt. of Bengal.



## STATEMENT SHOWING THE STOCKS OF RICE IN AND AROUND CALCUTTA.

NAMES OF MARKS.	STOCK IN HAND AS COMPILED OF—												
	1st week of August 1892	1st week of Sept. 1892.	1st week of Oct. 1892.	1st week of Nov. 1892.	1st week of Dec. 1892.	1st week of Jan. 1893.	1st week of Feb. 1893.	1st week of March 1893.	1st week of April 1893.	1st week of May 1893.	1st week of June 1893.	1st week of July 1893.	1st week of August 1893.
Balinghata	Mds. 8,39,000	Mds. 6,74,000	Mds. 4,98,500	Mds. 4,30,000	Mds. 3,16,000	Mds. 3,34,000	Mds. 4,05,000	Mds. 6,13,000	Mds. 9,04,000	Mds. 13,32,000	Mds. 11,75,000	Mds. 10,31,000	Mds. 8,86,000
Uttaradanga	" " 65,900	" " 70,900	" " 65,100	" " 57,300	" " 87,800	" " 65,500	" " 78,700	" " 99,500	" " 1,04,500	" " 1,15,000	" " 1,17,500	" " 1,19,700	" " 1,09,400
Chitpur, Golabaree, Kunnar- koty, Hathbala, and Culpi Ghat.	" " 6,56,370	" " 6,41,400	" " 5,63,300	" " 5,64,500	" " 5,40,700	" " 5,64,700	" " 7,01,900	" " 6,54,500	" " 6,46,600	" " 6,43,000	" " 6,66,000	" " 6,65,300	" " 6,64,990
Paturachatta, Posta, and Jorangan.	" " 4,000	" " 3,700	" " 3,000	" " 2,500	" " 2,000	" " 3,000	" " 5,000	" " 3,500	" " 3,900	" " 2,000	" " 2,500	" " 3,000	" " 2,000
Tollymore, Chetla, Kidderpore, and Anushanji.	" " 1,43,400	" " 96,500	" " 93,600	" " 51,100	" " 40,600	" " 87,900	" " 1,14,200	" " 1,46,400	" " 1,56,700	" " 1,55,300	" " 1,70,200	" " 1,53,300	" " 1,51,800
21 Minor bazars (estimated) ...	" " 2,40,000	" " 2,40,000	" " 2,40,000	" " 2,40,000	" " 2,40,000	" " 2,40,000	" " 2,40,000	" " 2,40,000	" " 2,40,000	" " 2,40,000	" " 2,40,000	" " 2,40,000	" " 2,40,000
Other retail shops, 5,129 in number (estimated).	" " 2,50,000	" " 2,50,000	" " 2,50,000	" " 2,50,000	" " 2,50,000	" " 2,50,000	" " 2,50,000	" " 2,50,000	" " 2,50,000	" " 2,50,000	" " 2,50,000	" " 2,50,000	" " 2,50,000
Baidyabati, Nowabganj, Rhe- drashwar, and Chandernagore.	" " 61,125	" " 51,500	" " 33,905	" " 51,125	" " 40,037	" " 63,961	" " 69,800	" " 76,380	" " 6,062	" " 5,319	" " 48,577	" " 26,275	" " 48,500
Total ...	22,69,725	20,37,750	17,45,408	16,35,985	14,87,137	10,06,751	18,67,000	20,89,240	23,13,463	27,48,519	26,61,777	24,30,575	23,37,900
On Railway premises on both sides of the river.	1,322 (on 3rd August 1892.)	11,396 (on 3rd Sept. 1892.)	17,216 (on 8th Oct. 1892.)	9,774 (on 3rd Nov. 1892.)	24,557 (on 3rd Dec. 1892.)	35,589 (on 3rd Jan. 1893.)	52,791 (on 3rd Feb. 1893.)	24,643 (on 3rd March 1893.)	23,773 (on 3rd April 1893.)	10,934 (on 3rd May 1893.)	11,512 (on 3rd June 1893.)	8,865 (on 3rd July 1893.)	12,897 (on 3rd August 1893.)
By Port Com- missioners' re- turns.	25,889 (1st to 3rd August 1892.)	13,503 (1st to 3rd Sept. 1892.)	27,678 (8th to 8th Oct. 1892.)	13,696 (1st to 3rd Nov. 1892.)	38,992 (1st to 3rd Dec. 1892.)	47,683 (3rd to 5th Jan. 1893.)	40,330 (1st to 3rd Feb. 1893.)	41,294 (1st to 3rd March 1893.)	25,750 (1st to 3rd April 1893.)	21,378 (1st to 3rd May 1893.)	19,601 (1st to 3rd June 1893.)	56,451 (1st to 3rd July 1893.)	56,451 (1st to 3rd August 1893.)
By Canal returns.	17,415 (1st to 3rd August 1892.)	27,063 (1st to 3rd Sept. 1892.)	24,027 (8th to 8th Oct. 1892.)	15,777 (1st to 3rd Nov. 1892.)	16,996 (1st to 3rd Dec. 1892.)	1,30,459 (3rd to 5th Jan. 1893.)	1,20,600 (1st to 3rd Feb. 1893.)	1,99,575 (1st to 3rd March 1893.)	76,791 (1st to 3rd April 1893.)	34,169 (1st to 3rd May 1893.)	7,615 (1st to 3rd June 1893.)	14,025 (1st to 3rd July 1893.)	19,787 (1st to 3rd August 1893.)
Grand total of Stocks ...	23,04,351	20,84,463	18,14,399	16,74,983	15,06,572	10,22,447	20,61,921	23,53,796	24,39,746	28,09,100	26,27,379	24,16,835	
Probable stock available for exportation by sea.	124 lakhs	104 lakhs	74 lakhs	64 lakhs	5 lakhs	74 lakhs	10 lakhs	13 lakhs	164 lakhs	174 lakhs	164 lakhs	144 lakhs	134 lakhs

STATISTICAL DEPARTMENT,  
The 7th August, 1893.

H. H. RISLEY,  
Secy. to the Govt. of Bengal.

**PRICES-CURRENT (retail) of Food-grains, Firewood, and Salt in the**

Number.		DISTRICTS.	QUANTITIES PER RUPEE IN																	
			WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU. ( <i>Sorghum Vulgare</i> .)					
			Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.			
BENGAL.																				
BURDWAN DIVISION.	1	Burdwan	13 8	13 8	11 14	...	...	...	9 8	9 4	9 12	11 4	11 4	11 13	...	...	...			
	2	Bankura	13 4	13 4	10 0	...	...	...	10 0	9 8	10 0	11 2	11 4	13 0	...	...	...			
	3	Birbhum	12 0	12 0	10 10	...	...	...	10 8	10 8	10 8	12 0	12 0	12 13	...	...	...			
	4	Midnapore	11 0	11 0	11 0	...	...	...	10 0	10 0	10 10	11 14	11 8	12 8	...	...	...			
	5	Hooghly	11 12	11 12	12 0	...	...	...	8 0	8 0	8 0	10 0	10 0	10 0	...	...	...			
	6	Howrah	...	...	...	...	...	...	8 10	8 13	8 10	10 12	10 12	12 5	...	...	...			
PRESIDENCY DIVISION.	7	Calcutta	12 8	12 8	11 4	17 2	17 3	14 12	7 12	8 0	7 14	10 0	10 5	10 9	19 0	20 0	15 4			
	8	24 Parganas	11 8	11 4	11 8	20 0	20 0	16 0	8 0	8 0	8 0	11 0	11 0	11 4	...	16 0	...			
	9	Nadia	14 8	14 8	11 13	21 0	21 0	17 12	8 7	8 8	10 0	10 6	10 6	11 1	...	...	...			
	10	Khulna	...	...	...	...	...	...	8 0	8 0	10 8	9 0	9 0	11 8	...	...	...			
	11	Jessore	10 8	10 0	10 10	13 0	13 0	...	8 8	8 8	9 0	10 0	10 0	12 0	...	...	...			
	12	Murshidabad	12 0	12 0	12 0	...	...	...	9 0	9 0	9 0	11 4	11 0	11 8	...	...	...			
CHITTAGONG DIVISION.	13	Chittagong	10 0	10 0	10 8	...	...	...	9 0	10 0	8 8	11 4	11 8	11 0	...	...	...			
	14	Noakhali	...	...	...	...	...	...	9 6	9 6	10 8	11 4	11 4	12 0	...	...	...			
	15	Tippera	10 0	9 8	7 8	...	...	...	8 0	8 12	8 10	9 12	10 0	10 13	...	...	...			
	16	Chittagong Hill Tracts.	...	...	...	...	...	...	...	...	...	8 14	7 0	8 14	...	...	...			
DACCA DIVISION.	17	Dacca	11 0	12 0	10 8	...	...	...	9 0	9 8	9 8	10 8	10 8	11 8	...	...	...			
	18	Faridpur	16 0	16 0	14 0	18 0	18 0	...	8 0	8 0	10 0	10 0	10 12	11 8	...	...	...			
	19	Backergunge	...	...	...	...	...	...	8 12	9 0	6 4	9 0	9 4	10 8	...	...	...			
	20	Mymensingh	9 8	9 8	9 8	...	...	...	9 0	10 0	10 0	10 8	11 8	13 0	...	...	...			
RAJBHARI DIVISION.	21	Dinajpur	13 0	13 1	10 0	...	16 0	16 0	9 9	9 4	9 0	12 9	11 8	11 0	...	...	...			
	22	Rajshahi	13 8	15 0	12 0	24 0	24 0	19 8	9 12	9 12	9 12	10 14	10 8	10 14	...	...	...			
	23	Rangpur	13 5	12 0	12 0	...	...	...	8 2	10 0	8 0	11 4	11 0	9 0	...	...	...			

A In the subdivisions the retail prices of salt per rupee are:—Kama 10 seers, Katwa 11 seers, and Raniganj 10½ seers.

B At Vishnupur the retail price of salt is 10 seers per rupee.

C At Rampur Hat the retail price of salt is 11 seers per rupee.

D In the subdivisions the retail prices of salt per rupee are:—Contai 10 seers, Tamluk 11 seers and Ghatal 10 seers 7 chitaks.

E In the subdivisions the retail prices of salt per rupee are:—Bhadreswar 11½ seers and Jahanabad 10 seers 10 chitaks.

F At Ulubaria the retail price of salt is 11 seers per rupee.

G Retail prices of salt in the principal marts in the interior of the district are:—Chotla Hat 11 seers 10 chitaks, Darasat 10 seer 10 chitaks, Mughahat 10 seers 10 chitaks, and Baduria 11 seers.

H In the subdivisions the retail prices of salt per rupee are:—Bahadurkhal 10½ seers, Chundanga 10 seers 8 chitaks, Meherpur 1 seer, and Ramghat 10½ seers.

I In the subdivisions the retail prices of salt per rupee are:—Bagerhat 8 seers and Satkhira 10 seers 10 chitaks.

J In the subdivisions the retail prices of salt per rupee are:—Jhemda 10 seers, Magura 10 seers, Narail 9 seers 10 chitaks, and Bangaon 10 seers 11 chitaks.

WHOLESALE PRICES PER MAUND OF 40 SEERS.			AVERAGE WAGES PER MONTH.						DISTRICTS.	Number.	
SALT.		SALT.	UNSKILLED LABOUR- ABLE-BODIED AGRICULTURAL LABOURERS.		STOCK OR HORSE- KEEPERS.		SKILLED LABOUR- COMMON MASON, CARPENTERS, OR BLACKSMITHS.				
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.

[illegible]

In the subdivisions the retail prices of salt per rupee are ;—Kurigaon 8 seers, Nilphamari 10 seers, and Gaibanda 10 seers.

## PRICES-CURRENT (retail) of Food-grains, Firewood, and Salt in the Head-quarters

		QUANTITIES PER RUPEE IN														
		WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLUM. (Sorghum Vulgare.)		
Number.	DISTRICTS.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
BENGAL—continued.																
RAJSHAH DIVISION. —continued.	23 Bogra	13 2	13 8	12 0	...	...	...	8 4	9 12	9 0	10 8	11 10	10 8	...	...	...
	24 Palna	17 4	17 4	13 8	24 0	20 10	...	6 0	6 0	7 0	11 12	11 4	12 12	...	...	...
	25 Darjeeling	8 0	8 0	8 0	9 0	9 0	10 0	5 8	5 0	5 0	10 0	10 0	9 0	...	...	...
	26 Jalpaiguri	12 0	13 0	11 0	14 0	12 0	16 0	8 0	8 0	6 0	11 0	11 0	10 0	...	...	...
BIHAR.																
BHAGALPUR DIVISION.	27 Monghyr	{ 14 0 to 15 4 }	15 12	13 5	21 0	21 0	13 5	{ 8 0 to 10 0 }	10 0	10 8	{ 11 0 to 12 0 }	12 0	11 14	...	...	13 4
	28 Bhagalpur	15 2	15 2	13 14	21 7	20 3	15 2	11 6	11 14	10 1	13 14	13 14	11 6	...	...	...
	29 Purnea (Kasba)	16 0	16 0	11 0	...	...	...	10 0	10 0	11 0	12 0	12 0	12 0	...	...	...
	30 Malda (English Bazar).	14 0	14 0	12 0	...	...	...	10 0	10 0	9 8	12 8	12 8	10 8	...	...	...
	31 Sonthal Parganas.	11 0	11 0	11 0	...	...	...	11 0	11 0	9 0	14 0	14 0	11 8	...	...	...
PATNA DIVISION.	32 Patna	{ 17 0 Red. 16 8 White. 14 0 }	15 8	15 8	21 0	21 0	20 0	10 0	10 0	10 0	15 0	15 8	13 0	23 0	23 0	18 0
	33 Gaya	14 0	13 12	12 8	20 0	20 4	16 4	9 8	9 8	9 0	13 0	13 0	11 12	17 8	18 4	14 8
	34 Shahabad	16 0	13 0	13 0	18 0	15 0	16 0	8 0	8 0	8 0	13 8	13 0	10 8	...	...	...
	35 Darbhanga	12 9	12 9	12 1	20 4	19 11	17 10	12 9	12 5	10 0	14 3	13 11	12 10	...	...	...
	36 Muzaffarpur	14 8	14 8	13 0	19 0	19 0	17 0	8 0	8 0	8 0	13 8	13 0	12 0	...	...	...
	37 Saran	15 8	15 4	13 4	21 8	21 0	18 4	10 0	10 0	8 4	13 0	13 0	11 2	...	...	...
	38 Champaran	14 8	14 0	12 0	22 8	23 0	17 0	9 0	8 8	9 0	14 0	13 4	12 8	...	...	...
ORISSA.																
ORISSA DIVISION.	39 Cuttack	11 7	11 13	11 2	...	...	...	10 8	10 8	8 8	14 7	14 7	11 11	...	...	...
	40 Puri	10 0	8 8	9 3	...	...	...	8 0	8 0	7 8	13 0	13 0	11 13	...	...	...
	41 Balasore	11 0	11 0	11 0	10 0	10 0	10 0	9 0	9 0	10 0	13 0	13 0	14 8	...	...	...
CHOTA NAGPUR.																
CHOTA NAGPUR DIVISION.	42 Hazaribagh	12 0	12 4	12 0	16 0	16 0	15 0	7 0	7 8	{ 12 0 to 13 0 }	12 4	12 8	...	...	...	...
	43 Lohardaga	{ 10 0 to 11 0 }	{ 10 0 Red. 9 12 White. 8 0 }	7 8	14 0	16 0	11 0	{ 10 0 to 11 0 }	10 0	11 0	{ 12 0 to 13 0 }	12 0	13 0	...	...	...
	44 Palamau	13 8	13 8	10 6	23 10	21 6	16 14	10 11	12 15	10 15	13 8	14 10	12 15	...	...	...
	45 Singhbhum	13 0	11 0	13 8	...	...	...	8 0	8 0	12 0	10 0	10 0	14 0	...	...	...
46 Manbhum	13 0	13 4	11 8	...	...	...	{ 8 0 to 8 8 }	8 8	10 8	{ 11 0 to 12 8 }	14 8	...	...	...	...	...

\* The price of salt at Motihari has risen considerably on account of the rains.

U At Birajganj the retail price of salt is 11 seers per rupee.

V At Kurwoong and Biliguri the retail price of salt is 8 seers per rupee.

W At Alipour the retail price of salt is 8 seers per rupee.

X In Begusarai and Jamui subdivisions the retail price of salt is 10 seers per rupee.

Y In Banka, Madhipura, and Supaul subdivisions the retail price of salt is 10 seers per rupee.

Z At Kishanganj and Araria the retail price of salt is 10 seers per rupee.

a In the subdivisions the retail prices of salt per rupee are :—Dugghur 10½ seers, Godda 9 seers, Jamtara 9 seers, Pakur 10½ seers, Rajmahal 10 seers.

b In the subdivisions the retail prices of salt per rupee are :—Barh 11 seers, Bihar 10½ seers, and Dinapore 10 seers.

## Station Bazars of the Districts of Bengal on the 31st July, 1893—(concluded).

SALT.			WHOLESALE PRICES PER MAUND OF 40 SEERS.			AVERAGE WAGES PER MONTH.									DISTRICTS.	Number.
			SALT.			UNSKILLED LABOUR— ABLE-BODIED AGRICULTURAL LABOURERS.			STEEL OR HORSE- KEEPER.			SKILLED LABOUR— COMMON MASON, CARPENTER, OR BLACKSMITH.				
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.		
BENGAL—continued.																
S. Ch.	S. Ch.	S. Ch.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	RAJSHAHI DIVISION—continued.	
9 12	9 9	9 9	4 0 0	4 0 0	3 14 0	7 8	7 8	7 8	5 0	5 0	5 0	10 0	10 0	10 0		
U	10 8	9 12	3 10 6	3 9 0	3 11 0	5 0	5 0	5 0	7 0	7 0	7 0	20 0	20 0	20 0		
V	8 0	8 0	4 10 0	4 12 0	4 10 0	7 0	7 0	7 0	8 0	8 0	8 0	12 0	15 0	15 0		
W	10 0	10 0	3 15 0	3 15 0	4 0 0	7 8	7 8	7 8	8 0	9 0	9 0	10 0	30 0	30 0		
10 0	10 0	10 0	3 15 0	3 15 0	4 0 0	7 8	7 8	7 8	8 0	9 0	9 0	10 0	30 0	30 0	Jalpaiguri	26
X	10 12	11 8	3 14 0	3 14 0	3 6 0	4 11	2 12	3 12	3 0	4 0	7 8	3 0	4 4	4 4	BIHAR.	
Y	10 12	10 8	3 10 0	3 10 0	3 12 0	5 10	4 0	5 10	4 0	5 0	11 4	5 0	15 0	15 0	Monghyr.	27
Z	10 0	11 0	3 10 0	3 10 0	3 6 0	4 11	4 11	4 11	4 0	4 0	4 0	8 0	8 0	10 0	Bhagalpur	28
a	10 0	10 0	4 0 0	4 0 0	3 12 0	5 10	5 10	5 10	6 0	6 0	5 0	15 0	14 0	15 0	Purnea.	29
10 0	10 0	10 0	3 14 0	3 12 0	3 10 3	4 0	3 12	3 12	5 0	5 0	5 0	12 0	12 0	12 0	Malda.	30
b	11 4	11 8	3 10 0	3 10 0	3 8 0	4 0	4 0	4 11	4 8	4 8	4 0	7 0	7 0	7 8	Sonthal Paraganas.	31
c	10 0	9 12	3 13 0	3 13 0	3 13 0	5 0	5 0	5 10	5 0	5 0	5 0	8 0	8 0	11 4	BHAGALPUR DIVISION.	
d	10 8	10 0	3 13 0	4 0 0	3 10 0	4 0	4 0	4 0	4 0	4 0	4 0	3 0	3 0	3 0	Patna.	32
e	10 4	10 4	13 14 6	3 14 6	3 8 0	3 12	3 12	3 12	3 0	3 0	3 0	5 10	5 10	5 10	Gaya.	33
f	11 0	11 0	3 10 0	3 10 0	3 11 0	5 10	5 10	5 10	4 0	4 0	4 0	5 10	5 10	5 10	Shahabad.	34
g	10 8	10 8	3 12 0	3 8 0	3 12 0	7 8	7 8	7 8	7 0	7 0	7 0	10 0	10 0	10 0	Darbhanga.	35
h	10 8	7 13	3 12 0	4 12 0	3 10 0	4 0	4 0	4 0	6 0	6 0	6 0	8 0	8 0	8 0	Muzaffarpur.	36
i	11 0	9 0	3 8 0	4 6 0	3 12 0	5 10	5 10	5 10	5 0	5 0	5 0	7 8	7 8	7 8	Saran.	37
j	12 0	10 8	3 5 0	3 12 0	3 10 0	4 0	4 0	4 0	5 0	5 0	5 0	7 8	7 8	7 8	Champaran.	38
k	11 0	11 0	3 9 0	3 8 0	3 10 0	4 0	4 0	4 0	4 0	4 0	4 0	8 0	7 0	7 0	ORISSA.	
l	10 8	10 8	3 12 0	4 12 0	3 10 0	5 0	5 0	5 0	6 0	6 0	6 0	12 0	10 0	10 0	Cuttack.	39
m	10 8	10 8	3 12 0	4 12 0	3 10 0	5 0	5 0	5 0	6 0	6 0	6 0	12 0	10 0	10 0	Puri.	40
n	10 8	10 8	3 12 0	4 12 0	3 10 0	5 0	5 0	5 0	6 0	6 0	6 0	12 0	10 0	10 0	Balasore.	41
o	10 8	10 8	3 12 0	4 12 0	3 10 0	5 0	5 0	5 0	6 0	6 0	6 0	12 0	10 0	10 0	CHOTA NAGPUR.	
p	10 8	10 8	3 12 0	4 12 0	3 10 0	5 0	5 0	5 0	6 0	6 0	6 0	12 0	10 0	10 0	Hazaribagh.	42
q	10 8	10 8	3 12 0	4 12 0	3 10 0	5 0	5 0	5 0	6 0	6 0	6 0	12 0	10 0	10 0	Lohardaga.	43
r	10 8	10 8	3 12 0	4 12 0	3 10 0	5 0	5 0	5 0	6 0	6 0	6 0	12 0	10 0	10 0	Palamu.	44
s	10 8	10 8	3 12 0	4 12 0	3 10 0	5 0	5 0	5 0	6 0	6 0	6 0	12 0	10 0	10 0	Singbhum.	45
t	10 8	10 8	3 12 0	4 12 0	3 10 0	5 0	5 0	5 0	6 0	6 0	6 0	12 0	10 0	10 0	Manbhum.	46

c In the subdivisions the retail prices of salt per rupee are :—Jahanabad 10 seers, Aurangabad 10 seers, and Nawada 9 seers.

d In the subdivisions the retail prices of salt per rupee are :—Buxar 11 seers, Sasaram 10½ seers, and Bhahua 9½ seers.

e In the subdivisions the retail prices of salt per rupee are :—Madhubani 11 seers and Samastipur 10 seers.

f In the subdivisions the retail prices of salt per rupee are :—Hajipur 10½ seers and Sitamarhi 11 seers.

g In the subdivisions the retail prices of salt per rupee are :—Siwan 10 seers 14 chitaks, Gopalganj (return not received).

h At Bettiah the retail price of salt is 10 seers per rupee.

i In the subdivisions the retail prices of salt per rupee are :—Jajpur 8 seers, Kendrapara 9 seers, and Banki 11½ seers.

j At Bhadrak the retail price of salt is 9 seers per rupee.

k At Giridih the retail price of salt is 10½ seers per rupee.

l At Gobindpur the retail price of salt is 11 seers per rupee.

Published for general information.

H. H. RISLEY,

## PRICES-CURRENT (wholesale) of Food-grains, Firewood, and Salt

Number.	MARKETS.	WHEAT.			BARLEY			RICE, BEST SORT.			RICE COMMON.		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
		R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
1	Calcutta ..	3 3 0	3 3 0	3 5 1	2 5 0	2 4 6	2 7 0	5 2 0	5 0 0	4 13 9	4 0 0	3 14 0	3 8 3
2	Sirajganj ..	2 8 0	3 4 0	3 2 0	...	...	...	5 12 0	6 0 0	6 0 0	3 15 0	3 14 0	3 12 0
3	Dacca ...	3 8 0	3 4 0	3 12 0	...	...	...	4 6 0	4 3 0	4 4 0	3 12 0	3 12 0	3 7 0
4	Narayanganj ...	...	...	...	...	...	...	4 0 0	4 0 0	4 0 0	3 9 0	3 9 0	3 4 0
5	Chittagong	4 0 0	4 0 0	3 12 0	...	...	...	4 4 0	4 0 0	4 8 0	3 8 0	3 8 0	3 10 0
6	Patna ..	2 7 0	Red. 2 7 6	2 8 9	1 14 6	1 14 6	2 0 0	4 0 0	4 0 0	4 0 0	2 10 3	2 9 9	3 1 3
		2 14 0	White. 2 14 0	2 11 6									
7	Balasore ...	3 12 0	3 8 0	3 8 0	3 12 0	3 12 0	3 12 0	4 4 0	4 4 0	3 12 0	3 0 0	3 0 0	2 14 0
8	Puri ...	4 0 0	4 10 0	4 5 0	...	...	...	5 0 0	5 0 0	5 5 4	3 0 0	3 0 0	3 6 0
9	Cuttack ..	3 2 0	3 4 0	3 8 0	...	...	...	3 10 0	3 10 0	4 10 0	2 12 0	2 12 0	3 6 0

CALCUTTA,  
The 8th August, 1893.

in the undermentioned *Marts* of Bengal on the 31st July, 1893.

GRAM, CHANA, CHHOLA, KADALAY OR SUNAGA. ( <i>Cicer Arisativum</i> .)			INDIAN-CORN OR MAIZE. ( <i>Zea Mays</i> .)			ARHAR OR THUR, CADJAN PEA. ( <i>Cajanus indicus</i> .)			FIREWOOD.			SALT.			MARTS.
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	
2 0 0	2 8 0	2 9 0	2 0 0	2 0 0	...	2 1 0	2 0 0	2 6 0	0 7 0	0 7 0	0 6 0	3 12 0	3 13 0	3 4 6	Calcutta.
3 2 0	3 4 0	2 14 0	...	...	...	...	...	...	0 6 6	0 6 6	0 8 0	3 9 0	3 8 0	3 7 0	Sirajganj.
2 12 0	3 2 0	2 14 0	...	...	...	2 0 0	2 4 0	2 8 0	0 5 0	0 5 0	0 5 0	3 11 0	3 9 0	3 11 0	Dacca.
2 14 0	2 14 0	3 12 0	...	...	...	3 2 0	3 2 0	4 4 0	0 6 0	0 6 0	0 8 0	3 10 0	3 10 0	4 0 0	Narayanganj.
3 10 0	3 10 0	3 12 0	...	...	...	...	...	...	0 8 0	0 7 0	0 5 0	3 12 0	3 12 0	4 0 0	Chittagoug.
1 14 0	1 14 6	2 3 6	1 14 6	1 14 0	2 3 6	1 11 0	1 11 0	1 13 0	0 5 0	0 5 0	0 5 0	3 10 0	3 10 0	3 8 0	Patna.
2 14 0	2 14 0	2 14 0	...	...	...	3 10 0	3 10 0	...	...	...	...	3 9 0	3 8 0	3 10 0	Balasore.
2 8 0	2 8 0	2 15 0	...	...	...	2 10 0	2 8 0	2 15 0	0 8 0	0 8 0	0 8 0	3 5 0	3 12 0	3 10 0	Puri.
2 0 0	(Kalai.) 2 0 0	2 6 0	...	...	...	1 12 0	2 0 0	2 8 0	0 8 0	0 8 0	0 8 0	3 8 0	4 6 0	3 12 0	Cuttack.

Published for general information.

H. H. RISLEY,  
Secretary to the Govt. of Bengal.

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.											
			AIR PRESSURE.			WIND.		TEMPERATURE.						
			Mean barometric height 8 A. M. reduced to 35°.	Mean reduced to sea-level and constant gravity, lat. 45°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.
ORISSA.	Puri	Puri	29.540	29.504	—	Calm & W. SW.	144	96.7	30th July	78.1	1st Aug.	80.0	79.3	84.2
		Gopalpore	29.554	29.515	—0.034	SW	309	98.7	3rd Aug.	70.8	31st July & 2nd Aug.	86.6	77.6*	82.0*
		False Point	29.530	29.502	—0.048	W	230	92.0	30th July	77.6	1st "	86.0	78.8	82.9
	Cuttack	Cuttack	29.478	29.495	—0.044	SWly	75	92.7	30th "	70.8	1 & 3 "	87.7	77.8	82.8
SOUTH-WEST BENGAL.	Balasore	Balasore	29.489	29.401	—0.043	NE	89	92.4	30th "	77.7	30 & 31 July & 4 Aug.	87.7	78.4	88.1
	Midnapore	Midnapore	29.400	29.503	—0.048	NEly	63	92.3	30th "	75.1	"	88.3	77.5	82.9
	24-Pargannas	Calcutta	29.534	29.501	—0.025	E & SW	79	89.6	30th "	77.7	4th "	86.4	79.0	82.7
		Saugor Island	29.523	29.487	—0.034	Variable	298	88.2	30th & 1st Aug.	77.5	3rd "	86.7	79.6	83.3
SOUTH-WEST BENGAL.	Howrah	Howrah	29.508	29.503	—0.021	Variable	134	91.3	31st July	77.7	3rd "	88.9	78.8	83.9
	Nadia	Krishnagar	29.534	29.514	—0.032	SEly	125	90.0	5th Aug.	77.9	4th "	87.7	79.3	83.5
	Khulna	Jessore	29.465	29.512	—0.017	E & W	68	90.6	31st July	78.3	3rd "	88.0	79.3	83.7
	Burdwan	Burdwan Raniganj	29.524	29.505	—0.017	Variable	62	92.7	30th "	78.9	3rd "	90.0	76.8	83.4
NORTH BENGAL.	Bankura	Bankura	29.245	29.492	—0.018	Variable	77	91.1	31st "	74.6	3rd "	88.0	77.6	82.9
	Birbhum	Berhampore	29.498	29.513	—0.024	E	94	89.6	30 & 31 "	78.3	4th "	87.5	79.4	83.5
	Palna	Sirajganj	29.544	29.540	—0.017	E	167	88.1	1st Aug.	76.7	31st July & 8 Aug.	86.2	77.7	82.0
	Bogra	Bogra	29.521	29.534	+0.010	SE	107	90.2	5th "	76.2	2 & 3 "	87.8	77.6	82.7
NORTH BENGAL.	Rajshahi	Rampur Boahat	29.495	29.514	—0.011	Variable	120	90.1	31st July	76.6	30th July & 3 Aug.	87.7	77.6	82.7
	Malda	Malda	29.484	29.515	—	SE	79	90.3	30th "	78.5	30th "	88.9	79.3	84.1
	Dinajpur	Dinajpur	29.409	29.544	0	E	85	90.6	5th Aug.	78.2	3rd "	88.8	79.3	84.2
	Rangpur	Rangpur	29.479	29.555	—0.017	ESE	68	89.8	1st "	77.7	4th "	89.0	78.8	83.9
EAST BENGAL.	Jalpaiguri	Jalpaiguri	29.337	29.573	+0.016	ENE	62	89.9	5th "	76.6	30th July & 2nd Aug.	88.5	77.0	82.8
	Kuch Bihar	Darjeeling	22.851	—	—0.003	NEly	69	89.1	5th "	50.7	1 & 3 "	66.6	57.6	62.1
	Darjeeling	Gumtong	19.003	—	—	SEly	61	57.9	4th "	37.1	4th "	55.6	39.4	47.6
	Sikkim	Chittagong	29.556	29.590	—0.022	ESE	136	87.2	4th "	75.1	1 & 2 "	85.8	76.2	81.1
EAST BENGAL.	Chittagong Hill Tracts	Domagiri	29.571	29.529	—0.018	SEly	102	89.3	5th Aug.	77.3	1st "	86.4	78.4	82.4
	Hackergunge	Barisal	29.559	29.540	—0.036	SEly	207	80.0	4th "	75.8	3rd "	84.5	77.2	81.0
	Nonkhali	Nonkhali	29.550	29.553	—0.014	Variable	119	86.5	30th July	76.9	3rd "	85.2	79.4	82.3
	Faridpur	Faridpur	29.506	29.530	—0.024	S	191	88.6	4th "	77.2	3rd "	87.2	79.0	83.1
NORTH BENGAL.	Dacca	Dacca	29.584	29.567	—0.011	E	183	89.4	4th "	75.8	2nd "	87.7	76.9	82.4
	Tipperra	Gomilla	29.552	29.502	—0.012	ESE	136	88.7	5th "	76.0	30 & 31 July	86.1	77.7	82.0
	Mymensingh	Mymensingh	29.449	29.526	—0.013	E	35	91.2	5th "	78.2	2 & 3 Aug.	89.1	79.2	84.1
	Purnea	Purnea	29.393	29.504	—0.008	Variable	63	90.2	5th "	76.0	4th "	88.8	78.1	83.5
NORTH BENGAL.	Bhagalpur	Bhagalpur	29.406	29.524	—0.013	ESE	128	89.4	2nd "	76.2	30th July	88.3	79.8	84.1
	Darbhanga	Darbhanga	29.388	29.519	—	ESE	133	90.7	2, 3 & 5 "	76.2	30th "	89.4	79.1	84.3
	Muzaffarpur	Muzaffarpur	29.334	29.513	—0.012	ENE	124	90.2	30th July	75.9	30th "	89.3	78.8	84.1
	Champaran	Motihari	29.389	29.511	+0.005	E	113	91.3	30th July & 3rd Aug.	78.1	4th Aug.	89.5	79.5	84.5
SOUTH BENGAL.	Saran	Chapra	29.197	29.498	—0.023	E	126	92.3	30th July	77.0	2nd "	89.6	78.9	84.3
	Shahabad	Dehri	29.319	29.510	—0.008	Variable	137	92.0	30th "	78.2	2 & 3 "	89.4	79.1	84.3
	Gaya	Arrah	29.357	29.495	—0.007	E	52	92.9	30th "	79.0	3 & 4 "	91.1	80.2	86.7
	Patna	Gaya	29.179	29.503	—0.021	E	109	93.4	30th "	77.3	30th July & 3rd Aug.	90.8	78.2	84.6
CHOTA NAGPUR.	Monghyr	Bankipore	29.376	29.507	—0.026	E	140	90.6	3rd Aug.	78.2	3rd Aug.	88.9	80.1	84.5
	Sonthal Pargannas	Naya Dumka	29.061	29.502	—0.011	Variable	91	90.6	30th July	73.8	3rd "	87.5	77.1	82.3
	Hazaribagh	Hazaribagh	27.579	29.511	—0.012	Variable	218	88.7	30th "	70.3	4th "	84.3	72.7	78.0
	Lohardaga	Ranchi	27.430	29.501	—0.021	Variable	209	87.0	30th "	69.4	4th "	82.5	71.7	77.1
ASAM.	Singbhum	Chaitanea	28.779	29.480	—0.031	Calm	28	91.9	31st "	74.2	4th "	87.6	76.0	81.8
	Manbhum	Manbhum	29.321	29.507	—0.008	SW	100	92.1	4th Aug.	77.0	5th "	88.5	78.5	83.5
	Silchar	Silchar	29.493	29.561	—0.018	Variable	100	88.2	4th "	76.8	30th July	85.6	77.8	81.8
	Goalpara	Silchar	29.550	29.595	0	Calm	100	91.5	4th "	76.8	2nd Aug.	89.2	76.6	82.9

\* Mean of 6 days.

Explanation.—Summary.—The normal means of air pressure and temperature are the arithmetical average or means of the reading during the same period. The humidity of the atmosphere is expressed as percentage, saturated air being represented by 100. A clear sky is denoted by 0 and an overcast sky by 101. The normal mean are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional stations. A rainy day is one of



for the week ending Saturday, the 5th of August 1893.

DISTRICT OBSERVATIONS.															DISTRICT.	
OF WEEK.					RAINFALL.											
					Since 1st of month.			Since 16th May 1893.								
					Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.		
Variation from normal mean.	Mean 8 A.M. temperature.	Average humidity at 8 A.M.	Average cloud amount at 8 A.M.	Rainfall of week at observing station.	Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.	}	
—	81.7	83	7.7	2.04		2.05		3.25		2.21			24.03			Puri.
—1.6*	79.6	86	5.1	3.76												
0	80.7	91	0.6	2.91												
—1.0	82.1	81	8.4	8.84		2.47		3.43		1.78			25.44		Outtack.	
+1.8	82.2	90	5.0	1.50		3.31		3.71		2.50			26.06		Balasore.	
—0.1	82.4	83	5.7	6.27	3.08	3.73	4.25	3.64	2.62	2.93	—0.41	45.64	27.18	+18.46	Midnapore.	
—0.4	81.0	88	8.9	1.73	3.32	3.29	4.00	4.23	2.43	2.29	+0.15	42.81	27.78	+15.11	} 24-Parganas.	
—0.5	81.8	91	9.7	8.05												
					2.50	3.71	5.00	4.53	1.10	2.80	—1.61	42.94	27.03	+15.91	Howrah.	
					3.39	3.52	4.33	4.92	2.45	2.63	—0.18	41.56	26.51	+13.05	Hooghly.	
+0.8	82.8	83	7.4	1.53	2.02	2.00	4.40	3.65	1.37	1.81	—0.34	39.00	24.81	+15.00	Nadia.	
—0.7	82.2	91	8.4	1.25	1.69	3.08	4.80	4.06	1.31	2.50	—0.91	45.28	30.87	+14.41	} Khulna.	
											—0.06	31.06	27.01	+4.95		
—0.8	81.7	87	8.1	1.11	1.73	3.18	3.25	4.02	1.67	2.17	—0.50	38.22	24.18	+14.04	Burdwan.	
0	80.4	90	3.3	2.70												
—0.1	81.0	87	7.4	3.98	3.10	3.00	3.50	4.17	2.84	2.75	+0.09	41.91	28.11	+13.80	Santura.	
—0.2	81.9	92	8.1	4.38	4.33	3.10	5.33	4.07	1.88	2.78	—0.84	34.09	27.18	+7.21	Birbhum.	
											+0.55	42.32	25.08	+17.14	Murshidabad.	
—1.1	80.1	93	10.0	1.44	1.38	3.00	3.00	3.60	1.16	2.00	—0.84	48.33	26.77	+21.56	Pabna.	
—0.4	81.1	90	7.0	0.43	0.67	2.88	3.00	3.57	0.61	1.84	—1.23	37.37	31.40	+5.81	Bogra.	
—0.5	82.8	88	5.9	2.75	1.48	2.87	3.00	3.38	0.91	2.04	—1.13	41.46	27.64	+13.82	Rajshahi.	
—	83.3	87	5.1	2.58	1.85	3.60	3.00	3.20	0.68	1.48	—1.80	32.57	28.53	+4.02	Malda.	
+0.2	81.3	89	0.3	0.87	1.94	2.63	4.00	3.56	0.98	1.83	—1.17	41.47	31.34	+10.13	Dinajpur.	
+0.2	81.5	90	2.7	0.58	0.83	2.78	2.25	2.33	0.68	1.51	—0.83	52.23	43.73	+8.50	Rangpur.	
+0.1	80.1	90	0.9	3.65	3.76	3.86	6.00	3.95	2.75	3.02	—0.27	67.39	65.35	+2.04	} Jalpaiguri.	
					2.86	3.38	3.50	3.69	0.66	2.63	—2.13	71.00	62.77	+8.23		
—0.4	61.8	85	8.4	0.19	5.03	6.13	5.75	5.17	3.23	4.06	—0.81	72.08	74.00	—1.92	Darjeeling.	
—	59.2	93	8.3	2.90											Sikkim.	
0	79.7	91	8.9	4.91	8.30	7.98	5.50	5.09	7.60	4.56	+3.04	103.59	68.31	+35.28	Chittagong.	
					3.20	0.14	4.00	5.15	2.54	4.52	—1.98	71.99	45.68	+26.31	Chittagong Hill Tracts.	
+0.9	81.7	90	0.9	3.34	3.81	4.40	5.00	4.83	2.81	2.96	—0.15	58.20	43.27	+14.93	Backergunge.	
—0.1	81.1	92	3.9	4.02	4.51	6.20	0.50	5.35	3.19	4.34	—1.15	72.08	58.49	+13.59	Nonkhali.	
—0.3	81.2	92	7.9	2.54	1.00	3.73	3.67	4.08	1.33	2.62	—1.29	44.11	30.62	+13.49	Faridpur.	
—0.7	81.1	90	0.3	2.73	2.41	4.21	4.75	4.35	1.88	3.09	—1.21	43.70	33.55	+10.15	Dacca.	
+0.7	80.3	94	7.0	1.50	1.73	4.20	2.75	4.11	0.45	3.04	—2.59	45.41	30.82	+14.59	Tippera.	
—0.7	80.5	90	8.3	2.30	2.17	3.40	4.20	3.93	1.38	2.35	—0.97	50.21	37.71	+12.50	Mymensingh.	
—0.6	81.7	90	4.0	2.10	1.86	3.04	4.00	3.40	1.19	2.00	—0.81	43.67	33.50	+10.07	Purnea.	
—0.7	83.2	87	8.0	1.47	1.20	2.81	2.75	3.47	1.03	1.81	—0.78	28.17	22.64	+5.53	Bhagalpur.	
—0.7	81.8	88	7.6	3.46	2.42	2.63	3.00	3.33	0.71	1.67	—0.96		22.22		Darbhanga.	
—	81.8	92	5.7	1.61	1.40	2.19	3.00	3.17	0.85	1.47	—0.62	25.13	21.46	+3.67	Muzaffarpur.	
—0.3	83.4	84	5.9	3.55		2.27		2.51		1.79			22.63		Champanan.	
+0.7	84.0	83	8.0	0.87	1.02	2.36	2.33	3.18	0.84	1.51	—0.67	20.38	21.00	—0.62	Saran.	
+2.1	89.9	83	3.1	0.40												
+1.1	83.1	84	0.3	0.42	1.11	3.10	2.60	3.83	0.06	2.13	—1.17	23.00	19.37	+3.64	Shahabad.	
+1.7	83.0	85	1.4	0.60												
+0.2	82.0	85	5.7	2.07	1.97	3.67	3.75	3.02	1.13	2.22	—1.09		21.05		Gaya.	
—0.8	83.4	84	9.7	1.42	0.99	2.79	2.75	3.26	0.81	1.63	—0.82	26.18	21.01	+5.17	Patna.	
					2.16	3.50	2.67	3.53	1.11	2.04	—0.93	26.66	21.67	+4.99	Monohyr.	
—0.1	81.1	88	5.8	6.01	3.02	3.55	3.50	4.01	2.91	2.04	+0.87	37.01	25.87	+12.04	Sonthal Parganas.	
+0.2	76.8	87	10.0	8.03		2.69		4.69		2.52			26.84		Hazaribagh.	
+0.1	74.9	91	6.7	2.94		4.57		5.22		3.05			26.13		Lohardaga.	
						4.25		4.55		2.01			21.51		Palamau.	
—0.4	78.9	87	8.4	4.24	4.24	4.05	4.00	4.40	2.68	2.83	—0.15	35.65	27.73	+7.92	} Singhbhum.	
					3.08	3.93	5.00	4.40	2.74	2.63	+0.11	14.07	24.12	+10.05		
—1.7	79.9	93	8.4	5.10												
—1.0	79.8	92	10.0	0.77												
—1.4	79.6	93	9.9	10.94											Assam.	

for the last ten years. The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater. The numbers denoting cloud amount represents the part of the sky covered the whole sky being denoted by 10. Under the head District observations of for the period in question during the past ten years. The means of the district are, the numerical average of the rainfall returned received in the which at least a tenth of an inch fell.







**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSER-  
VATIONS TAKEN IN ASSAM, FOR THE WEEK ENDING 8 A.M.,  
SATURDAY, THE 5TH OF AUGUST 1893.**

THOUGH the principal feature in the weather of the early part of the week was one of the small depressions which form in the north-west angle of the Bay at this season of the year, still the changes in the meteorological elements were unusually small, and the rainfall for the week is below the average in all districts. When the weather of the past week is compared with what obtained in the latter half of June and the early part of July, one important difference appears. The rainfall, though not heavy, has been more uniformly distributed, and the electrical disturbances which caused the unusually heavy local falls of those weeks either no longer occur, or their effect in causing precipitation of rain is to a large extent modified.

On the first day of the week the low pressure area began to form off the south Orissa coast, and north-westerly winds prevailed in Orissa, Chota Nagpur, and part of South-West Bengal. The shallow diffused low pressure which then covered the north of the Bay slowly drifted towards the west without much increase of intensity, causing easterly winds in all districts, except South-West Bengal and Orissa, where directions were more northerly. General light rain occurred in all districts during these days, the falls being somewhat more scattered in part of East Bengal, while in North Bengal they were heavier than at any other time during the week. Temperature was slightly above the normal. While the depression continued its slow westerly or north-westerly motion, these conditions prevailed over the province, but over the Bay owing to the steeper gradients winds became stronger and the sea continued rough till the end of the week. On 2nd August pressure began to recover very slowly and continued briskly on the 3rd, by which time the pressure distribution was practically normal. The wind circulation was then becoming more normal, and rainfall would have continued probably over the whole province but for a brisk fall of pressure occurring in Assam and North Bengal at the same time as a brisk rise in Orissa and the Sircars. These changes leading to a depression along the foot of the hills caused a westerly wind to blow over the whole province, and as this wind was comparatively dry, rainfall almost ceased, especially in the southern and western districts.

**Pressure.**—During the first-half of the week slow downward changes continued, but defect was never greater than 1 inch. As the depression moved away the recovery was also slow. The means for the week are below the normal by small amounts at all stations.

**Temperature.**—At the beginning of the week there was slightly excessive temperature in Lower Bengal, but during the cloudy weather which accompanied the shallow depression, the day temperatures fell and the air remained cooler till the end of the week, when owing to the westerly wind and comparatively clear skies it again began to rise. The difference from the normal was never very large. The means for the week are below the normal by less than half a degree except in Assam where defect is 1°·4.

**Rainfall.**—Light general rain fell over the greater part of the province except on the last two days in the south-western districts and on the last day in all districts. Though the rainfall was almost continuous from day to day, the total fall has not been large, and the means for the large divisions are all below the normal. Defect in North Bengal is 1·64 inches, in East Bengal 1·43 inches, and in South Bihar 1·35 inches. In Orissa and North Bihar the difference is only a quarter of an inch, and in South-West Bengal and Chota Nagpur between half an inch and an inch.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 5th of August 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.							RAINFALL.										
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.		Since 16th May 1893.			
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.		
Orissa	...	...	96·7	70·8	87·0	78·4	83·0	—0·4	2·61	2·89	—0·28	3·40	3·51	—0·11	1·80	2·23	31·15	35·31
South-West Bengal	...	...	92·7	73·0	87·0	78·0	83·3	—0·2	2·54	3·36	—0·82	4·41	4·06	+0·35	2·14	2·45	39·01	36·77
North Bengal	...	...	90·6	76·2	88·0	78·0	83·0	—0·3	1·07	3·10	—1·43	3·28	3·50	—0·22	0·90	2·00	40·28	38·73
East Bengal	...	...	80·4	75·1	80·2	77·8	82·0	—0·1	2·93	4·57	—1·64	4·20	4·44	—0·24	2·10	3·13	54·55	41·30
North Bihar	...	...	91·3	75·0	89·1	79·1	84·1	—0·6	2·39	2·57	—0·28	3·78	3·24	+0·54	1·05	1·71	29·53	24·16
South Bihar	...	...	93·4	78·8	89·0	78·0	84·3	+0·7	2·00	3·35	—1·35	3·14	3·71	—0·57	1·38	2·02	27·85	31·99
Chota Nagpur	...	...	91·9*	69·4*	84·8*	73·5*	79·2*	0	3·10	3·04	—0·04	4·55	4·69	—0·14	2·81	2·93	36·63	35·38
Assam	...	...	92·1	75·3	87·8	77·6	82·7	—1·4										

\* Daltonganj not included.

METEOROLOGICAL OFFICE, BENGAL,  
The 8th August 1893.

O. LITTLE,  
for Meteorological Reporter to the Govt. of Bengal.

**Abstract of the results of Meteorological Observations taken at the Alipore Observatory in the month of July 1893.**

	Inches.	Date.	Hour.
The mean pressure of the month ... ..	29.582		
The average pressure of July from 24 years' registers ...	29.537		
The highest pressure in the month ... ..	29.750	9th	10
The lowest pressure in the month ... ..	29.396	31st	16
The range of pressure ... ..	0.354		
Hours.			
The total number of hours of bright sunshine during the month	81.5		
The maximum possible number of hours of sunshine ...	413.1		
°			
The mean temperature of the month ... ..	83.0		
The average temperature of July from 24 years' registers ...	83.5		
The highest temperature in the month ... ..	90.5	27th.	
The lowest temperature in the month ... ..	75.2	4th and 5th.	
The range of temperature during the month ... ..	15.3		
The mean daily range of temperature ... ..	8.4		
The greatest range of temperature in one day ... ..	11.3	27th.	
Per cent.			
The mean humidity of the month ... ..	88		
The average humidity of July from 24 years' registers ...	85		
Inches.			
The mean vapour tension of the month ... ..	0.990		
The average vapour tension of July from 9 years' registers ...	1.002		
The mean cloud proportion of the month ... ..	8.51		
The average cloud proportion of July from 16 years' registers ...	8.05		
The total rainfall of the month ... ..	10.97		
The total rainfall indicated by a Beckley's self-registering rain-gauge (mouth of the gauge about 52 feet above the ground)	10.81		
The average fall of July from 48 years' registers ... ..	12.84		
The greatest fall in 24 hours ... ..	1.73	25th.	
Days.			
The number of rainy days in the month ... ..	19		
The average number of rainy days in July from 24 years' registers ... ..	25		
°			
The mean maximum equilibrium temperature of solar radiation during the month ... ..	143.7		
The mean difference of sun and air temperatures ... ..	56.7		
The greatest sun temperature ... ..	154.6	27th.	
The greatest excess of sun over air temperature ... ..	58.3	16th.	
The mean temperature of the nocturnal radiation thermometer on woollen cloth ... ..	77.1		
The mean depression of the nocturnal radiation thermometer below the minimum air temperature at 4 feet above the ground ... ..	1.6		
The greatest depression of the nocturnal radiation thermometer below the minimum air temperature ... ..	3.1	10th and 28th.	
Miles.			
The mean movement of the wind per day ... ..	87.8		
The greatest movement of the wind in one day ... ..	239.0	2nd.	
The greatest movement of the wind in one hour ... ..	15.0	1st, noon to 1 P.M.	
The number of hours with winds from each of the 8 points—			
N. 0, N.E. 3, E. 19, S.E. 70, S. 222, S.W. 277, W. 41, N.W. 3, Calm 109.			

The results of observations at the Alipore Observatory are not rigorously comparable with the registers of past years (at the Park Street Observatory). The barometer is about 3 feet higher at Alipore, and, other things being equal, reads therefore .003 lower. The diurnal range of temperature is also greater at Alipore, and the mean temperature apparently about 0.6° higher; and, finally, the thermometer which furnished the record of temperature at the Surveyor-General's Office during 20 years and upwards is found to read 0.6 higher than the Kew standard thermometer, which is the standard of reference at the present Observatory.

J. H. GULLILAND,

METEOROLOGICAL OFFICE, INDIA;  
Calcutta, the 7th August 1893.

*For Meteorological Reporter to the Govt. of India.*

Abstract of the Results of the Barometric and Thermometric Observations taken at 10 a.m. at the Meteorological Office, Chowringhee, in the month of July 1893.

		Inches.	Date.
The mean pressure at 10 A.M. during the month	...	29.624	
The mean temperature at 10 A.M. during the month	...	85.1	
The highest temperature during the month	...	93.0	12th and 27th.
The lowest temperature during the month	...	75.2	5th and 6th.
The absolute range of temperature during the month	...	17.8	
The mean daily range of temperature during the month	...	10.7	
The greatest range of temperature in one day during the month	...	14.2	27th.
		%	
The mean 10 A.M. humidity during the month	...	85	
		Inches.	
The mean 10 A.M. vapour tension during the month	...	1.022	
The total rainfall of the month	...	10.90	
The greatest fall in 24 hours	...	1.27	21st.
The number of rainy days in the month	...	16	

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA,

The 7th August 1893.

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 30th July to 5th August 1893.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.						HYGROMETRY.			Rainfall, past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
July	30th	29.548	83.7	88.0	8.7	79.3	85.6	81.0	.997	79.1	81	0.06
"	31st	.505	83.4	88.0	9.2	78.8	84.6	81.0	1.011	79.6	85	1.28
Aug.	1st	.500	81.4	81.9	7.1	77.8	81.6	79.5	.981	78.6	91	0.05
"	2nd	.520	82.4	85.9	7.1	78.8	81.6	81.5	1.077	81.5	99	0.39
"	3rd	.548	83.7	88.5	9.7	78.8	82.4	80.5	1.016	79.7	91	0.75
"	4th	.595	82.9	89.0	12.2	76.8	83.1	81.5	.988	78.8	75	0.11
"	5th	.560	85.2	90.5	10.7	79.8	87.6	81.5	.995	79.1	76	...

The mean 10 A.M. pressure of the seven days	...	...	Inches.
			29.539
The mean temperature of the seven days	...	...	83.2
The extreme variation of temperature	...	...	13.7
The maximum temperature	...	...	90.5
			%
The mean 10 A.M. relative humidity of the seven days	...	...	85
			Inches.
The total fall of rain from 30th July to 5th August 1893	...	...	2.65
The daily mean temperatures are the crude means of maximum and minimum temperatures.			

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA,

The 7th August 1893.

Results of the Meteorological Observations taken at the Alipore Observatory from 30th July to 5th August 1893.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
				Inches.	°	°	°	°	°	Inches	°	%			Inches.	
July	30th	153.3	1.1	29.522	81.9	87.4	8.7	78.7	80.3	1.014	70.7	93	SSW and calm	28	0.82	Chiefly cloudy, o, g, p, t, d.
"	31st	151.8	2.3	.465	82.8	86.6	7.6	79.0	80.0	0.988	78.9	88	ENE and ESE	111	0.09	Chiefly cloudy, o, g, p, d.
Aug.	1st	133.4	0.3	.467	81.4	84.6	5.4	79.2	79.6	.991	79.0	93	E and ESE	91	0.34	Chiefly cloudy, o, p, g.
"	2nd	129.3	Nil	.480	81.7	84.9	6.2	78.7	79.7	.988	78.9	91	ESE and SE	142	0.28	Cloudy, o, g, p.
"	3rd	130.5	0.7	.529	81.5	84.4	5.3	78.9	79.7	.990	78.9	92	ESE	90	0.20	Chiefly cloudy, o, g, d, p, t.
"	4th	144.2	5.1	.578	83.2	87.3	9.8	77.5	79.2	.948	77.6	84	SW by W, WSW and SW.	66	Nil	Partially cloudy.
"	5th	145.8	4.2	.545	84.2	88.4	8.2	80.2	79.7	.955	77.8	81	SW, W and SW by W.	90	"	Chiefly cloudy, o, g.

The mean pressure of the seven days	...	...	...	...	Inches.
The average pressure of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	29.512
The total number of hours of bright sunshine	...	...	...	...	Hours.
The maximum possible number of hours of sunshine	...	...	...	...	13.7
					91.7
					°
The mean temperature of the seven days	...	...	...	...	82.4
The average temperature of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	82.9
The extreme variation of temperature	...	...	...	...	10.9
The maximum temperature	...	...	...	...	88.4
					Miles.
The highest velocity of the wind in one hour	...	...	...	...	12
					lbs.
The highest pressure of wind on one square foot	...	...	...	...	?
					%
The mean relative humidity	...	...	...	...	89
The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	87
					Inches.
The total fall of rain from 30th July to 5th August 1893	...	...	...	...	1.73
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	3.59
The total fall from 1st January to 5th August 1893	...	...	...	...	61.66
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	37.00

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o, overcast ; g, gloomy ; d, drizzling rain ; t, thunder ; p, passing temporary showers.



## IRRIGATION DEPARTMENT, BENGAL.

*Abstract statement showing Tollage on Canals in Bengal classed as Major Works for the month of June 1893, as compared with that of the corresponding month of the previous year.*

CANALS.	TOLLAGE, 1893-94.						TOLLAGE, 1892-93.					
	During the month.			To end of the month.			During the month.			To end of the month.		
Orissa Circle.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Taldanda Canal System	1,772	0	5	4,512	6	3	43	14	11	3,671	12	3
Kendrapara ditto	2,662	8	1	12,966	6	3	3,892	15	11	10,510	12	9
High Level, Range I	722	15	6	2,097	7	9	536	3	9	1,319	14	6
Ditto, " II	172	1	9	443	12	9	160	11	9	331	0	0
Ditto, " III	101	12	2	251	8	8	69	9	0	150	4	0
Jajpur Canal	8	11	9	32	9	7	17	10	3	28	12	3
Total Orissa Circle	5,440	1	8	20,304	3	3	4,721	1	7	16,012	7	9
South-Western Circle.												
Midnapore Canal	8,440	11	3	23,260	12	6	11,519	15	6	28,982	6	0
Hijili Tidal Canal	4,649	2	9	14,578	5	6	4,170	11	6	17,056	3	3
Total South-Western Circle	13,089	14	0	37,839	2	0	15,690	11	0	46,038	9	3
Sone Circle.												
Patna Canal System	2,794	2	0	6,325	13	3	2,160	1	6	7,097	2	9
Arrah ditto	2,139	11	9	7,750	9	9	1,205	14	9	6,065	14	0
Buxar ditto	623	6	6	2,445	14	9	1,115	10	6	3,506	7	0
Total Sone Circle	5,557	4	3	16,522	5	9	4,481	10	9	16,669	7	9
GRAND TOTAL	24,087	3	11	74,665	11	0	24,893	7	4	78,720	8	9

## Government Transport Service.

CANAL.	TOLLAGE, 1893-94.									TOLLAGE, 1892-93.								
	During the month.						To end of the month.						During the month.					
	Passengers.			Goods.			Total receipts.			Passengers.			Goods.			Total receipts.		
	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.
Orissa Circle.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.
High Level	1,250	164	1,153 14 5	2,653	1,704	2,877 7 5	394	433	326 4 5	893	1,087	2,094 9 5						
Total Orissa Circle	1,250	164	1,153 14 5	2,653	1,704	2,877 7 5	396	433	326 4 5	893	1,087	2,094 9 5						

## Total Navigation Receipts.

CANALS.	EARNINGS, 1893-94.						EARNINGS, 1892-93.					
	During the month.			To end of the month.			During the month.			To end of the month.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Orissa Canals	6,594	0	1	23,181	10	8	5,047	6	0	18,107	1	2
Midnapore Canal	8,440	11	3	23,260	12	6	11,519	15	6	28,982	6	0
Hijili Tidal Canal	4,649	2	9	14,578	5	6	4,170	11	6	17,056	3	3
Sone Canals	5,557	4	3	16,522	5	9	4,481	10	9	16,669	7	9
Total	25,241	2	4	77,543	2	5	25,219	11	9	80,815	2	2

CALCUTTA,  
The 7th August 1893.

G. O. MACONCHY,  
Under-Secy. to the Govt. of Bengal.

## IRRIGATION DEPARTMENT, BENGAL.

*Abstract statement showing Tollage on Canals in Bengal classed as Minor Works and Navigation for the month of June 1893, as compared with that of the corresponding month of the previous year.*

CANALS.	TOLLAGE, 1893-94.			TOLLAGE, 1892-93.		
	During the month.			During the month.		
	Rs.	A.	P.	Rs.	A.	P.
Calcutta and Eastern Canals ...	16,486	2	6	54,771	8	3
Tolly's Nala ...	4,970	13	6	16,233	8	0
Total ...	21,457	0	0	71,005	0	3
Orissa Coast Canal ...	6,003	7	0	18,368	10	3
Nadia Rivers ...	10,795	15	6	24,614	5	0
GRAND TOTAL ...	38,256	6	6	1,13,987	15	6

CALCUTTA,  
The 7th August 1893.

G. C. MACONCHY,  
Under-Secy. to the Govt. of Bengal.

## CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 29th July 1893, as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 29TH JULY 1893.			WEEK ENDING SATURDAY, THE 30TH JULY 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ...	306	66,825	777	109	28,925	429
Jute ...	12	2,700	53	10	1,925	37
Firewood ...	136	66,725	1,096	205	1,19,225	1,829
Other articles ...	720	1,42,850	2,082	868	3,34,485	3,037
Total ...	1,174	2,79,100	4,008	1,190	3,84,560	5,332

## EAST INDIAN RAILWAY.

Statement of Goods Traffic in Staples carried during the four weeks and six days ending 30th June 1893, as compared with the same period of 1892.

STAPLES.	1892.		1893.		INCREASE.		DECREASE.	
	Weight.	Freight.	Weight.	Freight.	Weight.	Freight.	Weight.	Freight.
	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.
Cotton, raw	40,101	30,476	18,166	12,523	...	...	21,956	17,953
Cotton twist and yarn—	10,575	9,733	9,465	8,603	...	...	1,110	870
1.—European	26,406	14,326	28,483	17,262	2,027	2,936	...	...
2.—Indian	...	...	...	...	...	...	...	...
Cotton piece-goods—	68,649	88,290	1,22,618	1,37,253	53,969	48,963	...	...
1.—European	7,780	4,890	12,005	7,745	4,225	2,840	...	...
2.—Indian	...	...	...	...	...	...	...	...
Drugs and chemicals—	2,190	1,607	1,768	638	...	...	441	429
1.—Intoxicating other than opium	8,505	9,200	11,464	11,147	2,959	1,968	...	...
2.—Non-intoxicating	...	...	...	...	...	...	...	...
Dyes and tans—	708	466	336	253	...	...	370	213
1.—Indigo	10,616	2,218	11,557	2,525	941	347	...	...
2.—Myrabolams	311	413	410	546	99	135	...	...
3.—Aniline dyes	4,275	1,800	3,691	1,618	...	...	283	283
4.—Cutch	3,762	3,725	6,591	2,988	...	...	2,111	737
5.—Paints and colours	2,657	766	2,010	980	50	223	...	...
6.—Others	...	...	...	...	...	...	...	...
Grains—	13,02,221	3,71,006	7,80,208	2,82,000	...	...	5,22,013	80,096
1.—Wheat	4,04,682	65,161	5,07,540	80,029	1,02,858	20,860	...	...
2.—Rice	61,050	10,708	17,312	2,410	...	...	33,738	8,398
3.—Jawar and bagra	1,07,062	30,073	1,40,119	51,381	41,157	24,311	...	...
4.—Gram	7,088	3,554	11,267	4,087	3,279	1,533	...	...
5.—Indigo seed	63,512	23,070	61,458	27,145	...	3,475	3,084	...
6.—Seeds other than oil-seeds	4,43,843	1,00,272	3,74,118	98,200	...	...	69,731	10,973
7.—Others	...	...	...	...	...	...	...	...
Hides and skins—	35,856	21,308	21,263	14,285	...	...	11,595	6,723
1.—Hides of cattle	19,151	12,194	18,640	7,110	...	...	8,511	5,075
2.—Skins of sheep, &c.	1,380	811	1,627	1,000	237	180	...	...
Horns	...	...	...	...	...	...	...	...
1.—Raw	1,084	513	20,005	6,216	19,111	5,708	...	...
2.—Gunny bags and cloth	91,091	50,313	1,16,867	57,080	22,776	7,303	...	...
Lao—	17,042	6,216	28,087	9,748	11,045	3,532	...	...
1.—Stick	6,811	6,072	12,308	8,047	2,497	1,975	...	...
2.—Shell-lac	...	...	...	...	...	...	...	...
Leather—	1,942	3,541	2,262	3,964	320	420	...	...
1.—Unmanufactured	3,000	4,981	3,668	4,953	...	...	332	408
2.—Manufactured	...	...	...	...	...	...	...	...
Liquors—	10,183	4,827	8,814	5,760	...	934	1,373	...
1.—Beer	2,612	4,797	3,208	4,451	536	...	...	248
2.—Wines	1,821	2,795	1,752	2,063	...	...	72	642
3.—Spirits	...	...	...	...	...	...	...	...
Metals—	4,219	3,962	3,083	4,464	...	502	526	...
1.—Copper, unwrought	2,118	1,018	5,945	3,025	3,827	2,907	...	...
2.—Brass, unwrought	11,201	5,306	14,791	7,086	3,590	1,780	...	...
3.—Brass and copper, wrought	2,001,001	1,37,211	2,98,508	1,24,482	...	...	496	12,700
4.—Iron	3,034	2,215	4,465	3,030	1,372	435	...	...
5.—Tin	9,012	10,578	19,471	7,866	10,459	...	...	2,719
6.—Others	...	...	...	...	...	...	...	...
Oils—	2,681	1,070	5,150	1,435	2,469	369	...	...
1.—Castor	1,17,730	51,710	1,00,104	44,357	...	...	8,326	7,331
2.—Kerosine	11,442	5,310	12,159	4,721	717	...	...	895
3.—Others	...	...	...	...	...	...	...	...
Oil-seeds—	7,20,180	2,36,498	12,00,106	3,60,323	4,88,917	1,23,425	...	...
1.—Linseed	2,22,567	6,237	2,31,070	67,803	58,672	2,022	...	...
2.—Rape and mustard	7,887	2,102	5,405	1,060	...	...	2,482	1,634
3.—Til or jough	1,34,416	28,181	90,211	20,079	...	...	44,205	5,002
4.—Castor	1,01,007	31,847	68,160	20,400	...	...	33,741	11,357
5.—Poppy	6,307	1,149	7,018	1,208	111	...	...	241
6.—Others	14,096	9,635	71,117	5,368	...	...	6,980	4,267
Opium	12,573	8,957	14,043	6,540	1,070	...	...	809
Paper and pasteboard	...	...	...	...	...	...	...	...
Provisions—	26,413	21,429	27,208	16,971	795	...	...	4,458
1.—Ghee	24,114	2,712	30,278	28,957	6,141	8,245	...	...
2.—Dried fruits and nuts	4,199	2,111	4,074	2,541	...	480	131	...
3.—Coconuts	12,549	11,707	10,921	16,928	7,372	4,101	...	...
4.—Turnerrie	85,327	46,880	84,104	37,973	...	...	1,223	8,407
5.—Others	7,30,222	1,41,110	7,08,465	1,38,542	...	...	30,767	2,168
Salt	...	...	...	...	...	...	...	...
Salt-petre, &c.—	59,194	23,439	53,039	19,562	...	...	7,155	3,877
1.—Saltpetre	1,319	818	1,861	1,376	540	547	...	...
2.—Borax	51,121	8,750	30,378	8,890	...	121	20,743	...
3.—Other saline substances	...	...	...	...	...	...	...	...
Silk, raw—	6	10	...	...	...	...	6	19
1.—Foreign	1,463	987	3,605	1,773	2,202	786	...	...
2.—Indian	...	...	...	...	...	...	...	...
Silk piece-goods—	8	32	...	...	...	...	8	23
1.—Foreign	128	146	911	237	83	98	...	...
2.—Indian	...	...	...	...	...	...	...	...
Spices—	5,162	6,907	3,048	2,916	...	...	2,114	4,082
1.—Pepper	18,078	9,114	20,111	14,098	2,035	5,884	...	...
2.—Other	...	...	...	...	...	...	...	...
Sugar—	28,167	10,332	17,235	6,773	...	...	10,932	3,530
1.—Drained	4,56,286	59,470	3,70,369	54,690	...	...	76,917	4,071
2.—Undrained	6,27,514	82,840	5,32,219	50,968	...	...	95,296	22,300
Stone and lime	...	...	...	...	...	...	...	...
1.—Foreign	3	5	...	...	...	...	3	5
2.—Indian	2,218	2,976	6,876	6,662	4,358	3,676	...	...
Timber, &c.—	1,34,692	8,223	81,630	14,655	...	6,432	52,456	...
1.—Timber	44,070	4,032	46,765	3,898	2,696	...	...	1,104
2.—Firewood	1,18,200	59,511	1,71,055	69,899	53,765	9,983	107	507
Tobacco	708	1,186	...	661	...	...	...	...
Umbrellas	...	...	...	...	...	...	...	...
Wool—	1,817	2,007	3,463	2,523	1,646	561	...	...
1.—Raw	...	...	...	...	...	...	...	...
2.—Piece-goods—	104	222	102	104	...	...	...	...
a.—European	1,093	1,242	2,340	2,031	647	739	...	118
b.—Indian	...	...	...	...	...	...	...	...
3.—Shawls	4,81,321	1,90,563	5,26,918	2,28,313	45,597	37,900	...	...
All other articles of merchandise	...	...	...	...	...	...	...	...
Total	74,30,473	22,16,613	73,79,440	23,04,300	...	91,640	1,60,033	...
Military stores	20,940	52,327	17,295	25,304	...	...	9,864	...
Coal—	38,30,151	6,06,230	41,47,791	7,08,014	3,17,640	41,775	...	...
1.—For public	9,68,322	1,06,652	7,48,541	91,043	...	...	2,14,781	15,600
2.—Railway	...	...	...	...	...	...	...	...
Railway Materials—	...	...	...	...	...	...	...	...
1.—For construction and revenue	7,13,074	11,838	14,42,801	55,130	7,29,813	43,281	...	...
2.—	...	4,917	...	13,081	...	9,004	...	...
Live-stock	...	...	...	...	...	...	...	...
Total	1,29,78,973	30,59,856	1,30,36,058	32,04,880	6,62,985	1,40,224	...	...

C. W. CLARKE, Assistant Auditor.

TRAFFIC AUDIT OFFICE, GOODS DIVISION, JAMALPUR, the 7th August 1893.

## EASTERN BENGAL STATE RAILWAY.

*Abstract of principal commodities carried over the Eastern Bengal State Railway during the month of May 1893, as compared with the same month of the previous year.*

STAPLES.	1893.		1892.		Total.		Increase.	Decrease.
	Up.	Down.	Up.	Down.	1893.	1892.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Coal ... ..	2,080	31,148	3,090	10,842	34,477*	29,411*	5,066	.....
Cotton, raw ... ..	127	205	11	322	332	333	.....	1
Cotton twist and yarn—								
1.—European ... ..								
2.—Indian ... ..								
Cotton piece-goods—								
1.—European—								
a.—in bales and bundles	2,219	418	2,555	136	2,637	2,601	.....	54
b.—in boxes ... ..								
2.—Indian—								
a.—in bales and bundles								
b.—in boxes ... ..								
Grains—								
2.—Rice ... ..	2,214	2,439	5,275	972	4,053	6,247	.....	1,595
5.—Others ... ..	1,051	7,199	2,174	4,363	8,250	6,537	1,713	.....
Hides and skins—								
1.—Hides of cattle—								
a.—Dressed ... ..								
b.—Undressed ... ..								
2.—Skins of sheep, &c.—								
a.—Dressed ... ..	7	535	7	494	548	501	41	.....
b.—Undressed ... ..								
Jute—								
1.—Raw—								
a.—Screwed ... ..		1,174	4	380	1,176	300	786	.....
b.—Unscrewed ... ..		3,052	2	301	3,052	303	3,349	.....
2.—Gunny bags and cloth	573	1,104	371	888	1,677	1,259	418	.....
Metals—								
1.—Copper, unwrought ... ..								
2.—Brass, unwrought ... ..								
3.—Brass and copper, wrought	1,028	157	1,417	132	1,185	1,549	.....	364
4.—Iron ... ..								
5.—Tin ... ..								
6.—Others ... ..								
Oils—								
2.—Kerosine ... ..	838	4,352	3,538	41	4,090	3,579	1,111	.....
3.—Others ... ..	437	29	398	21	406	419	47	.....
Oil-seeds—								
1.—Linseed ... ..								
2.—Rape and mustard ... ..								
3.—Til or gingelly ... ..								
4.—Niger ... ..	530	6,045	291	3,143	6,361	3,434	2,947	.....
5.—Castor ... ..								
6.—Poppy ... ..								
7.—Others ... ..								
Provisions—								
2.—Betel-nuts ... ..	60	418	60	761	478	860	.....	382
3.—Others ... ..	728	502	565	376	1,230	940	290	.....
Railway plant and rolling-stock	.....	.....	.....	.....	10,008†	7,500†	8,538	.....
Salt ... ..	4,197	71	5,276	68	4,265	5,344	.....	1,078
Sugar—								
1.—Drained ... ..								
2.—Undrained ... ..	515	1,025	668	1,137	2,440	1,625	615	.....
Tea—								
1.—Foreign ... ..	1	1,400	.....	1,186	1,401	1,186	215	.....
2.—Indian ... ..								
Wood—								
1.—Timber ... ..	133	125	805	163	267	668	.....	411
2.—Firewood ... ..	1,051	.....	1,200	.....	1,051	1,200	.....	149
Tobacco ... ..	106	2,712	102	2,844	2,918	2,446	273	.....
All other articles of merchandise—								
1.—Unmanufactured ... ..								
2.—Manufactured ... ..	5,085	3,582	4,244	3,513	8,617	7,757	860	.....
Hay, straw, and wooloo (C. & S.E. Sections)...	732	.....	857	.....	732	857	.....	125
Total ... ..	22,926	69,193	32,649	37,608	100,507	87,296	26,308	4,157

\* Includes 1,290 tons and 9,479 tons of coal during 1893 and 1892, respectively, carried for Revenue, for which no "Up" and "Down" register maintained.

† Railway plant and rolling-stock, 16,098 tons and 7,500 tons for the years 1893 and 1892, respectively, for which no "Up" and "Down" register maintained.

*Statement of principal commodities carried over the Eastern Bengal State Railway during the month of May 1893.*

## INCREASES.

	Tons.		Tons.
Coal ... ..	5,066	Kerosine oil ... ..	1,111
Due to the carriage from Saidpur to Jalpaiguri of coal sold to the Bengal Duars Railway and to an increase in deliveries to presses on the Strand Bank, Calcutta.		Due to prohibition of carriage by boat within certain limits of the port of Calcutta.	
Jute, unscrewed ... ..	3,349	Seeds ... ..	2,947
Sirajganj, Kuchtia and Mymensingh show increases.		The increases are in despatches principally from Kaaba, Sonali, Forbesganj, and Goalundo. Due to good local crops.	
There was no jute available at the same time last year.		Railway plant and rolling-stock ... ..	8,538
		Chiefly from Calcutta for the Bengal Duars and Kuch Bihar Railways.	

## DECREASES.

	Tons.		Tons.
Rice ... ..	1,595	Salt ... ..	1,078
The principal decrease was in despatches from Goalundo. Last year the northern had to draw food-supplies from the eastern districts.		Ordinary fluctuation of traffic.	

CALCUTTA, the 31st July 1893.

JAMES SHAW,  
for Examiner of Accounts.

BENGAL CENTRAL RAILWAY.

Abstract of principal commodities carried over the Bengal Central Railway during the month of May 1893, as compared with the same month of the previous year.

STAPLES.	1893.		1892.		TOTAL.		Increase.	Decrease.
	Up.	Down.	Up.	Down.	1893.	1892.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.		
Coal ... ..	796	151	948	.....	965*	2,485*	.....	1,688
Cotton, raw ... ..	.....	.....	.....	11	.....	11	.....	11
Cotton twist and yarn—								
1.—European ... ..								
2.—Indian ... ..								
Cotton piece-goods—								
1.—European—								
a.—In bales and bundles ... ..	257	14	311	2	371	313	58	.....
b.—In boxes ... ..								
2.—Indian—								
a.—In bales and bundles ... ..								
b.—In boxes ... ..								
Grains—								
2.—Rice ... ..	9	129	11	357	133	386	.....	230
5.—Others ... ..	47	651	52	166	698	218	480	.....
Hides and skins—								
1.—Hides of cattle—								
a.—Dressed ... ..								
b.—Undressed ... ..								
2.—Skins of sheep, &c.—		28	.....	39	28	39	.....	11
a.—Dressed ... ..								
b.—Undressed ... ..								
Jute—								
1.—Raw—								
b.—Unscrowed ... ..	.....	94	.....	3	94	3	91	.....
2.—Gunny bags and cloth ... ..	21	6	14	11	27	25	2	.....
Metals—								
1.—Copper, unwrought ... ..								
2.—Brass, unwrought ... ..								
3.—Brass and copper, wrought ... ..	64	16	133	9	80	142	.....	62
4.—Iron ... ..								
5.—Tin ... ..								
6.—Others ... ..								
Oils—								
2.—Kerosine ... ..	146	.....	153	.....	136	183	.....	17
3.—Others ... ..	166	.....	167	.....	165	167	.....	3
Oil-seeds—								
1.—Linseed ... ..								
2.—Kape and mustard ... ..								
3.—Til or gingelly ... ..								
4.—Niger ... ..	155	434	156	206	589	302	227	.....
5.—Castor ... ..								
6.—Poppy ... ..								
7.—Others ... ..								
Provisions—								
2.—Betel-nuts ... ..	.....	761	.....	786	761	786	.....	25
3.—Others ... ..	143	132	84	61	275	125	150	.....
Railway plant and rolling-stock ... ..	.....	.....	.....	.....	175†	371†	.....	196
Salt ... ..	278	.....	416	7	278	423	.....	145
Sugar—								
1.—Drained ... ..	59	1,236	40	675	1,296	715	580	.....
2.—Undrained ... ..								
Tobacco ... ..	114	83	148	65	146	213	.....	67
All other articles of merchandise—								
1.—Unmanufactured ... ..	2,417	394	1,557	608	2,811	2,165	646	.....
2.—Manufactured ... ..								
Total ... ..	4,781	4,078	4,170	8,008	9,080	9,084	2,234	2,238

\* Includes 46 tons and 1,537 tons of coal during 1892 and 1893, respectively, carried for Revenue, for which no "Up" and "Down" register is maintained.  
† Railway plant and rolling-stock 175 tons and 371 tons for the years 1893 and 1892, respectively, for which no "Up" and "Down" register is maintained.

Statement of principal commodities carried over the Bengal Central Railway during the month of May 1893.

INCREASES.		Tons.	
Grains ... ..	480	Sugar ... ..	580
Slight increase due to a brisk demand in the Calcutta market.		Jhikargachi contributed nearly the whole of this increase.	
DECREASE.		Tons.	
Coal ... ..	1,492 tons.		
The inclement weather was unfavorable to brick-burning.			

CALCUTTA, the 31st July 1893.

JAMES SHAW,  
for Examiner of Accounts.

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 29th July 1893, on 1,610½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	2,00,844	Rs. A. P. 2,34,801 9 0	Mds. S. 18,81,677 30	Rs. A. P. 4,24,123 5 0	Rs. A. P. 17,043 0 0	Rs. A. P. 7,35,167 14 0	70,350½	89,343½	159,694
Or per mile of railway ...	...	182 11 10	...	263 5 7	10 0 4	456 10 9	...	...	...
For previous 34 week of half-year ...	917,772	0,61,470 8 0	63,28,234 10	14,72,339 0 0	54,107 6 0	24,91,007 4 0	237,599	303,515½	541,114½
Total for 44 weeks ...	1,208,616	12,56,772 1 0	82,09,832 0	18,16,462 11 0	71,240 6 0	32,24,475 2 0	313,940½	302,759	708,708½
COMPARISON.									
Total for corresponding week of previous year ...	241,133	2,27,723 5 7	22,15,451 0	4,87,493 4 7	10,848 8 1	7,31,777 2 3	72,305	94,463	166,768
Per mile of railway corresponding week of previous year ...	...	141 6 5	...	302 10 3	10 5 5	454 6 1	...	...	...
Total for corresponding 44 weeks of previous year ...	1,110,697½	10,28,088 12 5	95,54,248 20	20,54,791 5 0	68,634 5 1	31,56,114 7 3	312,351	405,521	717,872

\* The increase is presumably due to movements of pilgrims.

## TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 29th July 1893, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	21,024	Rs. A. P. 4,801 3 0	Mds. S. 3,297 30	Rs. A. P. 130 0 0	Rs. A. P. 13 0 0	Rs. A. P. 4,944 3 0	941	71	1,012
Or per mile of railway ...	...	215 12 6	...	5 13 6	0 0 4	222 3 4	...	...	...
For previous 34 week of half-year ...	68,708	12,926 2 0	70,816 0	826 3 0	36 0 0	13,788 5 0	2,802	256	3,058
Total for 44 weeks ...	74,792	17,727 5 0	34,113 0	956 3 0	40 0 0	18,732 8 0	3,743	327	4,070
COMPARISON.									
Total for corresponding week of previous year ...	16,729	3,970 13 1	5,546 0	234 11 0	9 2 0	4,214 10 1	923	65	988
Per mile of railway corresponding week of previous year ...	...	178 7 5	...	10 8 9	0 6 7	189 6 9	...	...	...
Total for corresponding 44 weeks of previous year ...	13,867	22,341 15 5	26,602 20	1,064 10 0	37 15 0	23,394 8 5	4,005	241	4,246

## DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for week ended 29th July 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	22,359	Rs. A. P. 13,767 14 0	Mds. S. 30,058 0	Rs. A. P. 5,461 12 0	Rs. A. P. 44 0 0	Rs. A. P. 19,273 10 0	6,037	2,525½	8,562½
Or per mile of railway ...	...	85 4 10	...	33 13 5	0 4 5	119 6 8	...	...	...
For previous 34 week of half-year ...	62,035	41,027 13 0	1,15,514 30	18,147 13 0	116 0 0	59,591 10 0	19,112	8,506½	27,618½
Total for 44 weeks ...	84,394	51,795 11 0	1,45,602 30	23,960 0 0	160 0 0	76,805 4 0	25,140	11,102	36,242
COMPARISON.									
Total for corresponding week of previous year ...	16,483½	12,348 10 7	65,356 10	8,382 0 0	44 14 3	20,796 8 10	6,408	2,758	9,256
Per mile of railway corresponding week of previous year ...	...	76 10 2	...	51 14 11	0 4 5	129 13 6	...	...	...
Total for corresponding 44 weeks of previous year ...	72,704	60,484 4 5	1,07,974 10	19,162 8 6	175 13 0	79,822 9 11	27,411	11,379	38,790

EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K.-D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for the week ended 29th July 1893, on 777 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	162,480	70,780 0 0	5,71,800 0	1,18,750 0 0	24,100 0 0	2,13,030 0 0	28,238	25,024	53,262
Or per mile of railway ...	200	91 0 0	736 0	153 0 0	*13 0 0	*257 0 0	...	...	...
For previous 3 week of half-year ...	450,320	2,22,230 0 0	16,52,010 0	2,06,340 0 0	34,810 0 0	5,23,380 0 0	80,513	74,725	161,238
Total for 4 weeks ...	702,800	2,93,010 0 0	22,24,410 0	3,85,090 0 0	58,910 0 0	7,37,010 0 0	114,751	99,749	214,500
COMPARISON.									
Total for corresponding week of previous year ...	132,128	59,516 0 0	6,74,360 0	1,48,709 0 0	35,262 0 0	2,43,546 0 0	26,440	35,160	61,600
Per mile of railway corresponding week of previous year ...	170	77 0 0	868 0	191 0 0	*28 0 0	*296 0 0	...	...	...
Total to corresponding date of previous year ...	642,947	2,04,347 0 0	20,04,078 0	4,12,289 0 0	72,322 0 0	7,49,028 0 0	115,936	126,425	242,361

\* Excluding steamer earnings.

BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for the week ended 29th July 1893, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	33,870	10,070 0 0	42,520 0	3,110 0 0	30 0 0	13,310 0 0	3,826	1,840	5,672
Or per mile of railway ...	271	81 0 0	340 0	25 0 0	...	106 0 0	...	...	...
For previous 3 weeks of half-year ...	103,640	33,420 0 0	1,24,810 0	8,410 0 0	360 0 0	42,190 0 0	12,720	5,145	17,865
Total for 4 weeks ...	137,510	43,490 0 0	1,67,330 0	11,520 0 0	390 0 0	55,400 0 0	16,546	6,985	23,537
COMPARISON.									
Total for corresponding week of previous year ...	26,166	8,969 0 0	47,083 0	3,137 0 0	61 0 0	12,167 0 0	3,826	1,840	5,672
Per mile of railway corresponding week of previous year ...	209	72 0 0	377 0	25 0 0	...	97 0 0	...	...	...
Total to corresponding date of previous year ...	130,223	40,171 0 0	1,76,560 0	11,170 0 0	472 0 0	51,813 0 0	17,142	7,201	24,343

DACCA STATE RAILWAY.

Approximate Return of Traffic for the week ended 29th July 1893, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	16,280	4,850 0 0	12,180 0	840 0 0	90 0 0	3,870 0 0	2,487	737	3,224
Or per mile of railway ...	178	57 0 0	141 0	10 0 0	0 0	08 0 0	...	...	...
For previous 3 weeks of half-year ...	52,270	14,980 0 0	85,130 0	2,810 0 0	340 0 0	18,130 0 0	7,825	2,317	10,142
Total for 4 weeks ...	67,550	19,820 0 0	47,290 0	3,650 0 0	430 0 0	24,000 0 0	10,312	3,054	13,366
COMPARISON.									
Total for corresponding week of previous year ...	14,254	4,714 0 0	16,705 0	928 0 0	533 0 0	6,195 0 0	2,572	652	3,224
Per mile of railway corresponding week of previous year ...	166	55 0 0	194 0	11 0 0	6 0 0	72 0 0	...	...	...
Total to corresponding date of previous year ...	63,086	19,971 0 0	46,255 0	3,200 0 0	1,053 0 0	24,224 0 0	11,183	2,791	13,975

## BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIBHUT STATE RAILWAY.)

Approximate Return of Traffic for the week ending 22nd July 1893, on 756 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs.	Mds.	Rs.	Rs.	Rs.			
Total traffic for the period on 756 miles open ... ..	84,230	34,140	2,63,220	37,700	12,070	83,970	18,040	18,765	26,825
Or per mile of railway ... ..	111'48	45'16	348'17	49'36	15'00	111'07	.....	.....	.....
For previous 24 weeks of half-year ... ..	205,310	82,810	5,87,550	88,410	25,150	1,06,370	27,950	34,208	62,216
Total for 34 weeks ... ..	289,540	1,16,950	8,50,770	1,26,170	37,220	2,80,340	40,990	50,061	91,041
COMPARISON.									
Total for corresponding period of previous year on 756 miles open	84,663	30,524	2,54,350	34,250	6,603	71,386	18,420	16,385	29,814
Per mile of corresponding week of previous year ... ..	112'14	40'43	330'89	45'38	8'74	94'55	.....	.....	.....
Total to corresponding date of previous year ... ..	283,464	97,605	8,15,615	1,12,197	25,510	2,35,373	43,481	54,758	98,239

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

	Rs.	A.	P.
Approximate earnings for the week ending 29th July 1893 ... ..	8,390	0	0
Corresponding period of 1892 ... ..	11,697	0	0
Decrease ... ..	3,307	0	0
Receipts per mile for the week ending 29th July 1893 ... ..	164	8	2
Corresponding period of 1892 ... ..	229	5	7
Decrease ... ..	64	13	5
Receipts from 1st to 29th July 1893 * ... ..	46,451	0	0
Corresponding period of 1892 ... ..	46,155	0	0
Increase ... ..	296	0	0





# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, AUGUST 16, 1893.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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### SURVEY AND RECORD OF RIGHTS IN BIHAR.

THE following papers relating to the survey and record of rights in Bihar are published for general information.

By order of the Lieutenant-Governor of Bengal,

J. A. BOURDILLON,

*Offg. Secretary.*

Dated Calcutta, the 15th August 1893.

From—J. A. BOURDILLON, Esq., Secretary to the Govt. of Bengal, Revenue Dept.,  
To—The Secretary to the Board of Revenue.

I AM directed by the Officiating Lieutenant-Governor to acknowledge the receipt of the Hon'ble Mr. Stevens' letter No. 826A., dated 14th August 1893, with its enclosure. Mr. Stevens' letter and the Minutes of Proceedings give a clear account of the deliberations of the Conference held with the representatives of the zamindars and indigo-planters of Bihar on the subject of the cadastral survey and maintenance of the record of rights in North Bihar, and of the results of that Conference. Briefly stated, the results are that the influential and representative gentlemen who attended the Conference, while reaffirming their opposition to the survey and maintenance of the record altogether, but regarding the contingency that such opposition might prove fruitless, have

admitted their preference for a system of maintenance through kanungos; that is, in the lines of the scheme proposed for criticism by His Honour the Officiating Lieutenant-Governor. This preference implies the rejection of the system of maintenance through village patwaris. The expression of this preference has been accepted by His Honour as decisive between the several schemes of maintenance, and orders will be at once issued to suspend the registration of patwaris under Regulation XII, 1817, or their utilization for survey purposes. The Lieutenant-Governor understands that this decision, which has already been communicated to the zamindars and indigo-planters, has afforded them gratification.

The results of the Conference are satisfactory to the Officiating Lieutenant-Governor as clearly defining the situation, enabling Government to act with greater freedom and effect, and leading to the immediate removal of all these difficulties and uncertainties as to the agency by which the survey should be made and the record subsequently maintained, which had been gathering round the operations in North Bihar. These operations will now be prosecuted with vigour to a well-defined end by officers under the complete control of the Government alone, and subject to the checks and guarantees for accuracy of work, which have been sanctioned by the Officiating Lieutenant-Governor at his interviews with the Hon'ble Mr. Stevens and the Settlement Officers, and Messrs. Carey and Craddock of the Central Provinces Commission.

Measures will also be taken now to procure the necessary legal sanction to the creation of a land record agency on the lines indicated in the draft scheme and Bill which were laid before the Conference.

Sir Antony MacDonnell desires me in conclusion to convey his thanks to the Hon'ble Mr. Stevens for the judicious and effective way in which the proceedings were conducted by him. His Honour fully endorses the praise given by Mr. Stevens to the gentlemen, official and non-official, who attended the Conference. In his reply to the Tirhoot Landholders' address on the 7th instant, at Muzaffarpur, Sir Antony MacDonnell acknowledged the practical and helpful manner in which, always on the assumption that the record was to be maintained, the zamindars had co-operated with the officers of Government during the discussions and the assistance they promised the Survey Department in the shape of unskilled labour free of charge.

No. 826A, dated Calcutta, the 14th August 1893.

From—The Hon'ble C. C. STEVENS, Senior Member of the Board of Revenue,  
To—The Secretary to the Government of Bengal, Revenue Department.

I HAVE the honour to make the following report on the Conferences which, under the instructions of the Lieutenant-Governor, I held at Muzaffarpur on the 3rd and 5th instant, with the representatives of the zamindars and indigo-planters of North Bihar, on the subject of the Bihar survey and of the future maintenance of the record of rights.

2. Before these Conferences I informally met the Government officers employed in the tracts immediately concerned. The object of this meeting was merely to obtain such general information relating to the facts and to the wishes of those affected by the survey as the local officers could give and was not already known. No proceedings were recorded.

3. I submit full reports of the Conferences, but it is desirable that I should lay before Government a brief summary of what was said and done, and should state the points which appeared to me to have been made clear.

4. I was assisted by the Hon'ble H. H. Risley, C.I.E., Secretary to Government in the Revenue Department, and by Mr. M. Finucane Officiating Secretary to the Board of Revenue and permanent Director of Land Records and Agriculture, while Mr. Lyon Settlement Officer of Muzaffarpur acted as Secretary. To all these gentlemen I am much indebted for their valuable help. The Commissioner of Patna, the Collectors of Muzaffarpur and Chumparan, the Officiating Director of Land Records and the Director of Survey, and the Settlement Officer of Chumparan, were also present.

5. On the other side, the Maharaja of Darbhanga with his Manager Mr. Bell, the Maharaja's brother Raja Rameshvar Singh, Mr. Gibbon the Manager of the Bettia estate, the Secretaries to the Bihar and Tirhut Landholders' Association, Sir W. B. Hudson, K.C.I.E., President, and Mr. Macnaughten Secretary, of the Bihar Indigo Planters' Association, together with several other influential European and native gentlemen, represented the zamindars and indigo-planters. I endeavoured to find some persons who might represent the raiyats; and it is a significant fact in considering the conditions of North Bihar that no adequate representation of this class could be obtained, and consequently the attempt had to be abandoned. There probably is not a single raiyat in Bihar of intelligence and education sufficient to enable him to take part in such a conference; and the raiyats' feeling on the subject can only be ascertained by personal enquiries in their villages.

6. I opened the proceedings by saying that the intentions of Government must be understood to be unalterable on the following points, which were not therefore open to discussion:—

- (1) The survey is to be made and record of survey and rights is to be maintained up to date.
- (2) The record is to be a public document, the accuracy of which Government must guarantee, so far as may be practicable.
- (3) Since the Government is thus responsible, it must not be fettered in its discretion, as to the period at which corrections of the record should be made.
- (4) The work must be done by an agency under the complete control of Government, and independent of any interested party.

It was then explained that in order to attain these objects, the Government was anxious to know the views and to study the interest of those affected.

7. I then proceeded to sketch the two systems which had suggested themselves to Government, *viz.*, (1) the patwari scheme, under which the unit would be the village, and the survey would be made, and the record kept up, by the patwari; (2) what might be termed the kanungo scheme, under which the survey would be made by amins, and the record for a circle of villages be maintained by an officer of higher qualifications and on higher pay. It was made clear that the former of these two plans would require legislation; the patwari would be a Government servant, appointed, controlled and paid by Government, and the cesses now collected from the raiyats for the payment of patwaris, under whatever name, must be taken in a legal and probably altered shape. The kanungo scheme was then sketched in outline following the note which had been under the Lieutenant-Governor's orders previously forwarded to the Indigo Planters and Landholders' Association.

8. A discussion followed, for which reference may be made to the detailed Minutes of the Proceedings appended to this report. It was apparent that the unofficial gentlemen present were hostile to any maintenance of the record at all. They pressed for information on many points of detail involved in either of the schemes laid before them, and to meet their wishes I distributed copies of the first draft of a Bill which had been prepared, embodying the Lieutenant-Governor's scheme of kanungos. This Bill although prepared under the orders of the Lieutenant-Governor had not yet been submitted to His Honour, and consequently he had had no opportunity of expressing his approval or disapproval of the draft. But since it was in general accord with his views, and there was an evident desire on the part of the unofficial gentlemen attending the Conference to be informed of the methods by which practical difficulties might be overcome, it was thought less inconvenient to produce the Bill somewhat prematurely than to reserve it till instructions could be taken.

9. It was not to be expected that any opinion should forthwith be given by the Conference; and it would have been manifestly unfair to press for criticisms without giving time for consideration. The Conference was then adjourned till the 5th, after the difference between the patwari and kanungo schemes had been again explained. No original plan was brought forward by the unofficial gentlemen present, but it was suggested that, instead of attempting to maintain a current revision of records, there should be a decennial revision.

Since this suggestion was inconsistent with the principle that Government, being responsible for the accuracy of the record, cannot be fettered as to the periods of revision, I was unable to permit it to be discussed as a proposal, though I directed that it should be recorded as an opinion.

10. On the 5th instant the Conference reassembled. The explanation given by Mr. Finucane of a remark made by him at the previous sitting led to a short discussion regarding the sanction proposed in the Bill for enforcing the communication of information as to transfers. The general feeling among the unofficial members was that the provision was open to objection, as giving the sub-kauungo a lever which he might use for purposes of oppression. It was obviously impossible to promise that no power of punishment for passive obstruction should be retained in the Bill, but it was explained that the details were open for consideration, and that any reasonable modifications which could be suggested were likely to be adopted.

11. I then read an extract from a letter written by Mr. Gibbon on the 24th October 1878, to the President of the Bihar Rent Committee. The advice given in this letter, as I pointed out, depended on the following principles:—

- (1) It is right that Government should have at its disposal a local agency of contemporaneous record.
- (2) That agency should have no connection with the collection of rents, but should be entirely at the service of Government, and should be nominated and paid by Government officers.
- (3) It is reasonable that the zamindars should pay at least a share of the necessary expenditure direct into the Government Treasury.
- (4) It is possible to secure, consistently with due economy, the services of efficient men.
- (5) The areas to be dealt with by these record-keepers should be readjusted, and the district divided into convenient and fairly uniform circles considerably larger than those of the existing patwaris usually are.
- (6) The present staff of patwaris should be placed at the disposal of the zamindars, to keep or to dispense with at their option.

These considerations, I pointed out, are exactly those on which the Bill under discussion is founded.

12. I regretted that Mr. Gibbon was not present, but I had mentioned to him personally my desire to bring his letter forward, and he was aware that I attached much importance to it. I had abstained from reading it on the first day, partly because I had feared that it might lead to irrelevant discussions, and especially because it seemed undesirable to take Mr. Gibbon at a disadvantage or to forestall and hamper him in anything which he might wish to say. After I had read the letter, Mr. Macnaghten, by Mr. Gibbon's authority, said that circumstances had changed since 1878, and that Mr. Gibbon claimed the right to change his opinions; Sir William Hudson further attributed Mr. Gibbon's change of opinions to the state of the law regarding the transfer of raiyats' holdings.

13. My object in reading the letter and laying stress on it was not to deny Mr. Gibbon the right to change his views, but to show that the scheme now brought forward was in precise accordance with that which had commended itself to one of the most valued unofficial advisers of Government, who even 15 years ago had had large practical experience. To me, I may remark in passing, it does not appear that the reasons given for a change from those views are adequate. The law as to transfers of occupancy rights has not been changed. If such transfers have become more numerous, surely the necessity for recording them has increased. And if the country is being surveyed and rights ascertained and recorded, it should be easier and less expensive to maintain the record. On the other hand, the interference of Government with the zamindars will be less under the Lieutenant-Governor's scheme than under the scheme which Mr. Gibbon proposed, since it is not now intended to register collections of rents.

14. The members of the Conference were next informed that His Honour the Lieutenant-Governor had now seen the Bill which was produced at the former meeting, and had accepted it as a provisional basis of legislation, with certain modifications which were read and explained, and will be found reproduced in the minutes of the Conference. Under the authority which had been given to me, I announced that Sir Antony MacDonnell would, if desired, be happy to come to the meeting and discuss any suggested amendments of the Bill. It was, however, considered unnecessary to trouble His Honour to do this.

15. I then asked whether the gentlemen present could now give me their opinion as to which of the schemes was to be preferred. The reply was given that, though those present could not bind absent interested persons, they were themselves of opinion that the kanungo scheme was the lesser of the two evils which were presented to them. This expression of preference, taken with the absence of any counter-scheme of maintenance from the zamindars was all that the Lieutenant-Governor asked for in his speech at the Bankipur Durbar, and under these circumstances I said that I was prepared under the Lieutenant-Governor's instructions to stop all further action in the direction of the registration and training of patwaris, and pointed out that the entire abolition of the patwari system is involved in the kanungo scheme. This announcement appeared to give satisfaction.

16. The discussion then fell upon the question of the area to be dealt with by the kanungos. It was desired that this should be as large as possible, that a superior class of men should be employed, and that the corrections should not be made annually. The landholders were assured that these expressions of opinion would have full weight given to them, and it was understood that Government would extend the area to the maximum consistent with efficient work. Speaking only for myself, I said that I could not advise that so large an area should be at first adopted as to produce any risk of failure. The work must first be made safe, and the details might afterwards be modified by the light of experience. I declined to promise that the corrections should not be made annually, since it is a fundamental part of the scheme that this must be left to the discretion of Government.

17. The Maharaja of Darbhanga then asked that the Lieutenant-Governor's notes might be regarded as part of the proceedings, and that the zamindars might be favoured with as full an exposition of the views of Government as could conveniently be given. This was assented to.

18. It was once more pointed out that, subject to the four principles stated in paragraph 6 above, which are insisted on by Government as fundamental, all details, however important, are open to discussion, and that His Honour the Lieutenant-Governor is most anxious to receive all the assistance which the practical experience of those interested can afford him, in order to make the working of the proposed arrangements as little inconvenient as possible. In breaking up the meeting, I then, on behalf of Government, thanked the gentlemen present for their attendance, and acknowledged the courtesy which had lightened my own labour.

19. As the Conference was rising, a further conversation took place between some of the members and Mr. Finucane on the subject of the provision by the zamindars of coolies for the survey, the Lieutenant-Governor having, it was understood, expressed the hope to several zamindars, at his interviews with them, that help in this direction might be given so as to lighten the cost of survey. The offers then made were subsequently confirmed by an official letter from the Secretary to the Tirhut Landholders' Association, a copy of which is appended to this letter.

20. The general results of the Conference appear to me to be these:—

- (1) It was made perfectly clear that the Government would insist on the maintenance of the record of rights up to date as necessary to secure permanent benefit from the original operations. It was made clear that the record should be maintained by a Government agency independent of all parties, and that a revision at the end of five or ten years was an arrangement which the

Government could not accept while remaining responsible for the accuracy of the record as representing existing facts.

(2) It was evident that, though the interests of the zamindars and the indigo-planters are not uniform, and perhaps in some instances conflict, both these classes object to the annual maintenance up to date of the record of rights. They would rather that the records should not be maintained at all. Next to this they would prefer a revision after long periods—say of five or of ten years.

(3) Of the two schemes suggested to them, they prefer that of the kanungo dealing with larger areas to that of patwaris dealing with villages.

(4) The announcement of this preference enabled us to make the immediate concession, that the existing patwaris shall not be made use of for purposes of the survey and shall remain free for the performance of zamindari duties. The concession was received with satisfaction by zamindars and planters alike.

(5) We were able to show that the adoption of the kanungo scheme would involve the repeal of the Patwari Regulation, XII of 1817 (a measure which would probably be satisfactory to zamindar and planter); provided that an efficient mode of maintaining the record of rights can be brought into operation.

(6) I hope that it was made quite clear that the Government, while adhering to the principles laid down, will consider, and adopt if possible, all reasonable proposals intended to meet the wishes, or guard the interests, of those affected.

21. The main objections put forward to the introduction of any scheme were (1) the interference, (2) the cost, and (3) the probable dishonesty and exactions of the establishments. As the kanungo will have nothing to do with the collection of rent, or recording such collection, or with the letting of land; but will only deal with the maintenance of the record as completed by the survey, whereby all parties will have a standard of right to which to appeal, and as besides he will be closely supervised by superior officers, the interference will be reduced to a minimum, and it will be certainly less than that authorized by the existing patwari regulations. The landlord's share of the cost, though to large zamindars it may be considerable simply because they possess large property, will be small to other classes, and every effort will be made to avoid needless expenditure. Among other things it is under consideration whether the fees and fines under the Land Registration Act, VII (B.C.) of 1876, may not be credited to a District Fund for the maintenance of these land records. And after all, though that part of the expense which will not be recovered by registration fees, &c., will have to be met by a cess, the amount so raised will be much less than that now levied with doubtful legality for or by the patwaris. At the present time a zamindar has a patwari in every village, it is understood. When the record of rights has been prepared and is maintained, the duties of the patwaris will be diminished; and it will probably be possible for a zamindar to do with fewer men than he now employs. Sir William Hudson, who has an intimate knowledge of the needs and condition of the raiyats, has publicly stated his opinion that they will gladly pay a rupee an acre for copies of the original record relating to their holdings. If this be so, they are not likely to object to pay their share at the rate of half an anna or so per acre per annum for its maintenance. It is too much to hope that there will be no instances of dishonesty or exactions; but the landholders of North Bihar possess great power and influence, and are in no way deficient in energy and courage, so that we may confidently look to them to report all instances which may come to their knowledge of malpractices directed to the injury of their raiyats and themselves. I cannot but hope that on further examination the force of these objections will prove to be less than it at present appears to them.

*Proceedings of a Conference held at Muzaffarpur on August 3rd, 1893.*

PRESENT:

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| <p>The Hon'ble C. C. Stevens, Member of the Board of Revenue, Lower Provinces (in the Chair).<br/>         The Maharaja Bahadur of Darbhanga, K.C.I.E.<br/>         Raja Ramesvar Singh Bahadur.<br/>         A. Forbes, Esq., Commissioner of the Patna Division.<br/>         The Hon'ble H. H. Risley, C.I.E., Secretary to the Government of Bengal in the Revenue Department.<br/>         Sir W. B. Hudson, K.C.I.E., President, Bihar Indigo Planters' Association.<br/>         Colonel Sandeman, Director of Bengal Surveys.<br/>         M. Finucane, Esq., Officiating Secretary to the Board of Revenue.<br/>         T. Gibbon, Esq., C.I.E., Manager, Bettiah Raj.<br/>         Henry Bell, Esq., Manager, Darbhanga Raj.<br/>         L. Hare, Esq., Collector of Muzaffarpur.<br/>         W. D. Blyth, Esq., Collector of Champaran.</p> | <p>W. C. Macpherson, Esq., Officiating Director of Land Records and Agriculture.<br/>         Rudston Brown, Esq., Indigo Pl.<br/>         R. Macrae, Esq., Indigo Planter.<br/>         E. G. Colvin, Esq., Settlement Officer, Champaran.<br/>         Babu Parmesvar Narain Mahtha.<br/>         Babu Mangal Pershad.<br/>         Babu Ramesvar Narain Mahtha.<br/>         Babu Jamuna Pershad Sukul.<br/>         Babu Sridesvar Narain Mahtha.<br/>         P. C. Lyon, Esq., Settlement Officer, Muzaffarpur (Secretary).</p> |
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MR. STEVENS, in opening the Conference, said:—

I have been directed by the Lieutenant-Governor to meet you for the discussion of the best means of making and maintaining the survey and record of rights in North Bihar.

I may say frankly that it has come to my notice that two nearly opposite doubts have been expressed regarding the objects and procedure of Government in this matter. Some appear to think that the Lieutenant-Governor has come down with his officers, bringing schemes out and dried, and determined to adopt them, merely asking for the assent of those interested. Others think that there is nothing definite before them, and that they run the risk of being required to commit themselves prematurely to an opinion on propositions of a vague and shadowy nature. Neither of these apprehensions is well founded.

The points which may be taken at the outset as settled finally and definitely are (1) that the record of survey and of rights is to be maintained; (2) it is to be a public document, the authenticity of which the Government must guarantee, so far as this is practicable; (3) and since the Government is thus responsible, it must not be in any way fettered in its discretion as to the period at which correction of the record should be made; (4) and, lastly, this is to be done by an agency under the complete control of Government and independent of any interested party.

As to the best method of attaining these objects, His Honour the Lieutenant-Governor is anxious to know the views and to study the interests of those who will be affected. The key to his position is to be found in the last paragraph of his reply to the landholders' address:—"Gentlemen," (he said) "I do entreat you to regard the question in a considerate and conciliatory spirit. I am here to discuss every point with you in a friendly and amicable way. I will do everything I can do within reason and the law to meet your wishes; and if only you will meet me in a similar spirit, as I feel confident you will, then I do think that between us we shall be able during the next few days to arrive at a reasonable understanding and a workable agreement on the matters that have to be settled between us." These are not the words of a Government which is prepared to neglect or refuse advice.

Two plans have been under consideration, viz., (1) the use of the patwaris registered under Regulation XII of 1817 to make the survey and to maintain the record, and (2) the employment of amins for the survey and of a special agency for maintenance. As to the former, it may serve to clear away some misapprehensions if I say at once that the retention of the present patwari in his existing relations is not proposed. If retained at all he would be made a Government servant, subject only to the orders of the officers of Government, and liable to transfer or removal by them. The extent of the area assigned to him would be reconsidered and readjusted. The cesses levied for the patwaris' remuneration, under whatever name, must be taken for him still, though in a legal and probably altered shape. It is recognized that Regulation XII of 1817 must be revised so as to secure the above objects, though the Government is advised that the Regulation, as it stands, gives it a right to the services of the patwari, for the purposes of ascertaining and of recording facts connected with the villages, such as would be recorded in the record of rights, and that this right (though fallen into practical disuse) still exists legally. The Government is entitled to require the patwaris to give assistance and information in framing the record and in ascertaining the identity, and measuring the area, of the various plots of land in the village, to the extent of their ability. The exercise of these powers under the Regulation as it stands, especially



under the unfavourable conditions which have gradually grown up, would however be involved in difficulty; and the dual control which it recognizes would be adverse to efficiency, even were there no other objections. If, therefore, the patwari agency is to be employed, it must be under considerably altered conditions.

The other scheme which has been suggested is that there shall be an unit of area. The unit of area is the circle of villages—the circle will contain perhaps 20 villages—instead of the single village. The circle officer will be, not the patwari, but a more highly qualified and better paid Government official, and the information to be recorded will be reduced to the minimum necessary for supplying adequate information as to the actual occupation of each field, its area and soil quality, the status of the occupier, conditions of occupation, and the rent and rent-rate payable. The scheme leaves the question of rent payment to be settled between the tenant and landlord without any intervention on the part of the executive Government. There will be only one statistical statement maintained, the “jinswar,” which is not directly concerned with the relations of landlord and tenant, and which may be said to have more of an administrative than a fiscal aspect. The following is an extract from the Lieutenant-Governor’s note on this scheme:—

“The importance of careful supervision in such a scheme as that under notice cannot be over-rated. I would therefore group the sub-kanungos’ circles into circuits (of, say, 20 circles), to be placed under a kanungo on Rs. 50 per month, whom I would include in the subordinate Provincial service. The entire land record staff of the district I would place under a Sub-Deputy Collector. The following estimate of total cost for an average Bihar district is therefore tentatively proposed:—

	Rs.
120 Sub-kanungos ...	3,000
120 Chainmen muharrirs ...	1,200
6 Kanungos ...	300
1 Sub-Deputy Collector ...	175
	<hr/>
Pensionary charges at one-fifth ...	4,675
	935
Per monsem ...	<hr/>
	5,610
Per annum ...	<hr/>
	67,320
Tour expenses ...	2,500
Stationery and survey appliances ...	1,180
	<hr/>
Total ...	71,000

As establishments have a tendency to grow, and as it might be found desirable to employ senior officers as District Land Records Deputy Collectors, this estimate might in time be exceeded. But it ought, I think, never to go beyond Rs. 75,000 per annum.” I may, to prevent all risk of misunderstanding, repeat in other words what I have already said. The discussion must postulate the maintenance of the record. This is not an open question. The record will be a public document, the authenticity of which the Government must guarantee so far as this is practicable. The Government must therefore not be in any way fettered as to its discretion to have annual corrections of the record, if it so decides.

The agency by which the record is to be maintained may be an agency dealing with (a) individual villages, or (b) circles of villages. If the former be decided on, the unit of agency would be the patwari. If the latter be decided on, the unit of agency would be the circle kanungo. In either case, the officer would be a whole-time Government official entirely independent of any other control.

If the patwari is decided on, the control exercised through him by Government will be close and continuous: and he may be required to furnish any information or statistics required by Government in regard to his village for administrative, judicial or other purpose. The patwari will not be at the disposal or control of the zamindar for any purpose whatever. He will have nothing to do with the collection of rent. But all arrangements connected with the land or the tenants must be brought on his records.

His pay will be levied from the zamindar and raiyats. It is believed that no more will be needed than the raiyats now pay for this purpose in the shape of *neg* where the *neg* has not been already consolidated with the rent or than what they pay for the purpose though disguised as an addition to the rent, where the *neg* has been incorporated with the rent.

The landlords must make their own arrangements for rent collection.

If the circle kanungo be decided on, the information to be brought on record, and the enquiries to be made into village economy from time to time, will of course be less. And in this case the pay to be given to the officer will be higher; and generally the status of the officer will be better. The control to be exercised over the circle kanungo will be constant, and such as the Government deems adequate for guaranteeing the accuracy of the records.

When the agency is settled, the character of the maintenance will have to be discussed. The principle to be insisted on here is that we shall make the map the basis, and that we shall work up from the occupancy of every field to the landlord.



In conclusion, Gentlemen, I would note that it is necessary for us to decide first by what agency the record is to be maintained, before we discuss what agency we shall employ to make it.

Mr. Bell said he was not quite sure that he understood the proposal as regards patwaris. If it was intended that they should cease to do any work for the zamindar, how were they to be paid?

Mr. Risley said that the method that would very likely be adopted was the addition of  $\frac{1}{4}$  anna to the road cess now levied, calculated on the present road cess returns. Where the patwari *neg* had not been consolidated with the rent, a share, probably a half, would perhaps be levied from the raiyats.

Mr. Bell said that, as far as he knew, no patwari *neg* was levied.

Mr. Gibbon said that Government appeared to be under a misapprehension as to the nature of the patwari *neg*. It seemed to be assumed that the zamindar collected this cess from the raiyats and paid the patwari from the proceeds. This was not the case. The patwari was the person who levied the cess, which was called by different names in different villages, and he collected the cess himself. In some villages he had recently taken to entering the amount of this cess as a footnote to the jamabandi, but the zamindar never fingered it. He believed that whether Government took away collections from the patwari or not, he would continue to collect his cess from the raiyat.

Mr. Finucane said that Mr. Gibbon's account of the cess might be presumed to be correct in reference to Champaran, but that this would make no difference to the scheme.

Mr. Bell, on the other hand, considered that the point was a most important one. Although the zamindars were to get no benefit from the patwari, they were to have to pay for him. He asked why they should have to pay at all when no cess had been consolidated with the rent. They had no concern with mere matters of general administration, which should be paid for by the whole community.

Mr. Gibbon protested that Government was still assuming that the raiyats paid the cess to the zamindar.

Mr. Risley said that the effect of the High Court judgment in the matter of patwari *neg* had been to give them a *tabula rasa*, and any scheme now proposed would have to be a wholly new one.

Mr. Bell said that the arrangements for payment would in fact amount to the imposition of a patwari cess.

Mr. Finucane concurred.

Mr. Bell said that the zamindars were not at present in a position to express any opinion on the schemes. His Honour the Lieutenant-Governor in writing demi-officially to Sir William Hudson had promised them a scheme combining the minimum of expense and the minimum of interference. At present they had no knowledge of the details of these schemes. How was the sub-kanungo going to perform his duties? What powers were to be given to him? Was he to be authorised to go into the villages, summon all the raiyats, call for papers and books, &c., &c.? It was most important that such points as these should not be reserved for future determination, but should be decided first. Again, what validity was to be given to these men's corrections? They had no information on these points, and would be glad to see the two schemes drawn up in bill form, and to be given time to consider those bills.

Mr. Risley enquired whether they were prepared to consider the schemes at once if they should be put before them in bill form.

Mr. Bell could not promise this, and said that the action to be taken now was too important to be hurriedly decided on, as any scheme now adopted would probably be extended later on to the whole of Bihar and to Bengal as well.

Mr. Risley then explained further the details of the second, or kanungo, scheme. He claimed that it prescribed the minimum of interference. The irreducible minimum of that interference was the year-by-year correction of entries affecting the possession, area, &c., of the fields in each village. The minimum of expense was secured by making the area to be dealt with by each sub-kanungo as large as possible. In the matter of legal validity, it was necessary to go back to section 119 of the Bengal Tenancy Act, and to consider what the legal validity was which was attached to the original entries made in the record. This was the starting point. The original entries were of two classes, (1) disputed, and (2) undisputed. The High Court had declared that the decisions arrived at in the matter of disputed entries were *res judicata*. The undisputed entries were merely presumed to be correct until the contrary was shown. The corrections would similarly be divided into disputed and undisputed entries. The undisputed corrections to which both parties agreed would stand on the same footing as the original undisputed entries, and the burden of proof that they were incorrect would lie on the person contesting them, whereas, in the case of disputed entries, the statements made by each party would be noted by the sub-kanungo, and a contemporaneous record would thus be secured of the allegations made on each side, *valeat quantum*, admissible in evidence but not creating any legal presumption whatever.

Mr. Bell contended that such entries could not be made evidence, as being *res inter alios acta*.

Mr. Risley went on to say that, if it was objected that no legal presumption should attach in any case to an unverified entry made by a sub-kanungo, there was the alternative of having every entry made by him attested by an officer exercising the powers of a Revenue Officer under the Tenancy Act, during an annual revision. The officer in this case would be of equal rank with the Settlement or Assistant Settlement Officer who framed the original

record, and it would be proposed to attach a legal presumption of correctness only to those entries which had been verified by him, and to attach no importance to unverified entries. But this development of the scheme would of course somewhat enhance the cost.

*Mr. Bell* said he would be glad to see all these proposals down on paper.

*Sir William Hudson* enquired whether the officials present were pledged to act on lines already laid down for them, or were free to give their own views on the schemes under discussion. He said that he and others with him required assistance in dealing with such administrative schemes, and that there were many non-officials who would give much weight to the opinion of officials who had had practical experience of the difficulties to be met with in the field.

*Mr. Finucane* pointed out that the two schemes were very similar, and that the choice lay merely between the employment of small men in small areas, and the employment of more important and better paid men in larger areas. Did the gentlemen present want large or small areas as units?

*Sir William Hudson* enquired whether Government was prepared to accept and debate any scheme other than those now proposed.

*Mr. Risley* replied in the affirmative, but added that Government would reserve the right to declare that any scheme that might be proposed did not amount to maintenance of the record at all.

*Mr. Stevens* repeated the limitations referred to in his opening speech, on which Government had determined, and said that the Lieutenant-Governor was anxious to receive the views of non-officials.

*Sir William Hudson* said that the non-officials would be glad to have the opinion of officials of practical experience as to whether they believed in the present schemes and anticipated their success.

*Mr. Forbes* remarked that Government had had the benefit of the opinion of such officials before propounding the present schemes.

*Mr. Stevens* added that the present meeting had been called in order that Government might ascertain the facts and hear the opinions of non-official gentlemen interested.

*Mr. Bell* was afraid that time was being wasted, as no real discussion could be entered upon until the details of the scheme had been considered. There being no reporters present, mere verbal statements could not be accepted by the zamindars. *Sir Charles Elliott* had promised the abolition of the patwari.

*Mr. Risley* said that any such promise was conditional on the acceptance of the scheme then under discussion, which had been abandoned.

*Sir William Hudson* concurred.

Copies of a draft Bill, with rules to be made under it, were then distributed to the gentlemen present as being a first sketch of the kanungo scheme.

*Mr. Gibbon* then enquired whether the sub-kanungo would not form some sort of court, how he was to compel the production of evidence, and what he was to do when evidence was persistently withheld from him. He contended that no case had yet been made out for the maintenance of the record at all, but that if it was to be maintained, they must choose whichever scheme appeared to them to be the lesser evil. How could they do this with no details before them? How was evidence to be taken? Would the sub-kanungo have power to summon him (*Mr. Gibbon*) and to call upon him to produce papers. If he refused, was he to be fined?

*Mr. Risley* said that all these points would be provided for in a rule-making section, and that all rules drafted under the section would be published for criticism, and that all criticisms would be considered by the executive authorities.

*Mr. Bell* intimated that the zamindars would be more strongly opposed to the Bill if power were to be given to the executive to make rules to carry out its provisions.

*Mr. Finucane* said that all of the points raised by *Mr. Gibbon* would be found to have been answered in the Bill and the rules drafted under it.

*Mr. Gibbon* enquired further whether the courts would accept the entries as evidence without the evidence of the man who made them.

*Mr. Finucane* said that this was provided for, and proceeded to explain that a safeguard had been introduced into the scheme in the provision made for the filing of lists of changes to be made in the record in the sub-kanungo's office. In this way a zamindar would be able to place on record his opinion as to the alterations which the sub-kanungo should make. The Deputy Collector would go into every village and verify every entry in detail.

*Mr. Bell* asked what would happen if no one appeared before the Deputy Collector or sub-kanungo, or if the raiyats and zamindars all agreed to conceal alterations and to announce that there were none to be made.

*Mr. Finucane* said that in such cases no changes would be recorded.

*Mr. Bell* contended that in that case the scheme would not secure the maintenance of the record, and said that in the North-Western Provinces raiyats and zamindars combined to deny the existence of changes in order to get rid of the harassment of the Government agent who was deputed to record them.

*Mr. Risley* and *Mr. Finucane* believed that the parties to changes would not adopt this attitude as soon as they appreciated the advantages that they would obtain by having the corrections made.

*Mr. Finucane* said, in answer to *Mr. Gibbon*, that all transfers of holdings or portion of holdings that were alleged to exist would be noted, even if they were illegal, but that such entries would in no way operate to legalise them.

*Mr. Gibbon* further enquired whether the record was to be binding as between zamindar and raiyat only, or as between raiyat and raiyat also. Were all mortgages, zar-peshgis, and the like to be recorded, even though they were illegal without the zamindar's approval.

*Mr. Finucane* said that all these points were to be found in the Bill and the rules under it. All mortgages involving possession would be noted.

*Mr. Bell* enquired what difference there was between the two schemes.

*Mr. Finucane* said that any Bill and rules that might be drafted to give effect to the patwari scheme would be very similar to those in the hands of the gentlemen present. There would be a change in the area of the unit, in the personality of the agent, and in the method of realising the cost of the maintenance of the record. The patwari scheme would be the more expensive. Both schemes were purely tentative, Government would be prepared to accept any better scheme if one can be put forward.

*Mr. Risley* added that the tendency under the patwari scheme would undoubtedly be towards greater interference. The area dealt with by each patwari being small, he would be asked for more elaborate information about it, and would probably be called on for local reports in judicial matters, and for census and other statistical information useful for administrative purposes. It would be impossible to ask for all these statistics from men dealing with the larger areas that were to be given to sub-kanungos.

*Mr. Bell* understood that the zamindars were to have nothing to do with the patwari or his returns or his statistics, or indeed with his work in any way, but were to retain the privilege of paying for him.

*Mr. Risley* and *Mr. Finucane* agreed that the zamindars would not be called upon for any returns or statistics of a general character, but added that the zamindars and raiyats alike would be benefitted by the operation of the scheme, and would be asked to pay in equal shares for the benefit derived.

*Mr. Gibbon* then enquired whether Government would devise some summary procedure for the recovery of rent.

*Mr. Risley* said that it was impossible to devise any such procedure until the maintenance of the record had been secured.

*Mr. Gibbon* asked whether Government would promise to devise some such procedure, if the zamindars agreed to the proposals made for the maintenance of the record.

*Mr. Risley* said that no such promise could be given, and that Government could not go beyond Sir Charles Elliott's statement in Council that "he hoped it might be possible" to devise such a scheme.

*Mr. Gibbon* wanted to know what security they had that Government would not go beyond their present requirements in the matter of returns and statistics, and that interference would always be at a minimum. He contended that no one could pledge Government to this.

*Mr. Finucane* referred to the draft Bill, and pointed out that everything done under it must be confined to the record of transfers and to subjects connected with the maintenance of the record of rights. Obviously if any summary procedure could be devised at all it could not be till we got rid of disputes. The first step to shortening procedure is to minimise the possibility of there being matter left to dispute over; the record of rights, and the scheme for its maintenance aim at effecting this object.

*Mr. Gibbon* feared that interference would certainly increase.

Babu Parmesvar Narain Mahtha cited as an example of increasing interference a recent addition to the road cess return form which required the entry of rates of rent—a completely new departure.

*Mr. Bell* thought that the instance showed the danger of trusting to the generalities that were being freely expressed.

*Mr. Risley* enquired what *Mr. Bell* would regard as an ideal method of maintaining the record.

*Mr. Bell* said that he agreed with *Mr. Gibbon* and *Mr. Macnaghten* that a periodical revision should be made at intervals of 10 years, and that no farther attempts should be made to devise a scheme that it was impossible to work.

*Mr. Stevens* said that this could not be taken as a proposition, but merely as an opinion.

The Maharajah of Darbhanga said he could not express any opinion until the papers had been circulated among the members of the Bihar Landholders' Association and he had received their replies, but he would prefer *Mr. Bell's* suggestion for the periodical revision of the records if they were to be kept up at all.

Sir William Hudson agreed, but wished to add:—"Unless Government is prepared to give us a summary procedure for the recovery of rent."

*Mr. Gibbon* agreed, but wished to add:—"If Government insist, against our opinion, on the maintenance of the record by any other means, I would prefer the scheme suggested in the Government letter of June 30th, 1892."

Babu Ram Dhari Sahai agreed with *Mr. Bell's* suggestion.

*Mr. Risley* enquired whether, if *Mr. Bell's* suggestion could not be accepted by Government, the gentlemen present were prepared to offer an opinion on the schemes that had been submitted to them.

*Mr. Bell* and the Maharaja of Darbhanga expressed their inability to give a personal opinion on the point at present, as time was required to enable them to circulate the scheme among the members of the Bihar Landholders' Association.

*Mr. Stevens* enquired whether the opinions that had been expressed preferring a decennial revision were also liable to modification after further consideration.

*Sir William Hudson* said that those opinions were a plain and clear answer to a definite question propounded by *Mr. Risley*.

*The Maharaja of Darbhanga* in reference to his opinion on that point cited the case of the records of his own villages which were surveyed in 1878, and had recently been resurveyed, and in which very few alterations were found to be necessary.

*Mr. Bell* gave some details of those changes.

*Mr. Finucane* pointed out that a record that had been left uncorrected for five years would be quite useless in the courts, and that legal validity could only be secured for the record by its proper annual maintenance. Unless this were secured it would be impossible to devise any procedure for the summary recovery of rents or for simplifying the evidence under the ordinary procedure.

*Mr. Bell* disagreed and expressed his opinion that the Government of India should not force the maintenance of the record on the Provincial Government when a gentleman of the vast experience of *Mr. Gibbon* had declared that it was impossible to secure it.

*Mr. Risley* enquired, with reference to the registration scheme preferred by *Mr. Gibbon*, what was to be done with the map. The papers could be kept up under that scheme, but not the map.

*Sir William Hudson* pointed out that 8 out of 10 per cent. (the figure adopted as representing probable alterations) would be succession transfers involving no alteration of the map.

*Mr. Stevens* then asked for an answer whether, if it be determined that the record must be maintained annually or concurrently, the patwari would be preferred to the sub-kanungo.

*Mr. Finucane* again explained the difference between the two schemes.

*The Maharaja of Darbhanga* said no answer could at present be given.

*Mr. Gibbon* enquired whether he was to continue to nominate additional patwaris, substitutes for unfit patwaris and the like.

*Mr. Stevens* said that *Mr. Gibbon* should formulate his question and send it up through the Collector of Champaran, but that in the meantime no change should be made in his present procedure.

*Babu Ram Dhari Sahai* enquired whether the registration of patwaris was to continue.

*Mr. Stevens* said that further orders would be subsequently issued on this point.

*Messrs. Gibbon and Bell* enquired whether the draft Bill and rules could be regarded as an official document.

*Mr. Finucane* said it was only a first draft not yet seen by the Lieutenant-Governor, but added that it had been prepared on the lines of His Honour's scheme.

*Mr. Bell* thought that the details of the scheme were of such importance that he would like to know, before he considered it, whether the Lieutenant-Governor approved of the draft.

As to a further meeting of the Conference, *Sir William Hudson* thought any such meeting would be unnecessary until at least a definite reply had been given to the suggestion that the records should be revised decennially.

After some discussion the Conference was adjourned to 8 A.M. on Saturday, the 5th August.

P. C. LYON,

Secretary.

### *Proceedings of a Conference held at Muzaffarpur on August 5th, 1893.*

#### PRESENT:

The Hon'ble C. C. Stevens, Member of the Board of Revenue, Lower Provinces (in the chair).

The Maharaja Bahadur of Darbhanga, K.C.I.E.

Raja Ramesvar Singh Bahadur.

A. Forbes, Esq., Commissioner of the Patna Division.

The Hon'ble H. H. Risley, C.I.E., Secretary to the Government of Bengal in the Revenue Department.

Sir W. B. Hudson, K.C.I.E., President, Bihar Indigo Planters' Association.

Colonel Sandeman, Director of Bengal Surveys.

M. Finucane, Esq., Offg. Secretary to the Board of Revenue.

Henry Bell, Esq., Manager, Darbhanga Raj.

Babu Bepin Behari Bose, Manager, Hutwa Raj.

L. Hare, Esq., Collector of Muzaffarpur.

W. D. Blyth, Esq., Collector of Champaran.

W. C. Macpherson, Esq., Offg. Director of Land Records and Agriculture, Bengal.

F. R. Maonaghten, Esq., Secretary, Bihar Indigo Planters' Association.

E. G. Colvin, Esq., Settlement Officer, Champaran.

H. Collingridge, Esq., Indigo Planter.

Rudston Brown, Esq., "

Rowland Hudson, Esq., "

A. Macrae, Esq., "

E. Stevens, Esq., "

Babu Ram Dhari Sahai, Secretary, Tirhut Landholders' Association.

Babu Ramesvar Narain Mahtha.

" Parmesvar Narain Mahtha.

" Sridevar Narain Mahtha.

P. C. Lyon, Esq., Settlement Officer, Muzaffarpur (Secretary).

The minutes of the proceedings of the meeting held on August 3rd were taken as read and were agreed to, *Mr. Bell* and *Sir William Hudson* having previously read and considered them and admitted their accuracy. With reference to the remark made by him (see page 4 of the

minutes) that in certain circumstances "no changes would be recorded," Mr. Finucane explained that he meant that no changes would be recorded by the sub-kanungo at that time. But the draft Bill provided for further action to compel information in cases of wilful obstruction or concealment. If it were found that information as to transfers was being kept back, and all other means of obtaining that information failed, the Collector would issue a notice calling for returns, and would insist on their being filed, imposing a fine for their non-production. And should the returns thus obtained prove incorrect, the zamindar would be liable.

Mr. Bell enquired whether the zamindar was to be held responsible for all inaccuracies in his returns discovered or alleged to exist by the sub-kanungo. In many cases he might be unaware of the existence of changes.

Mr. Finucane explained that it was only in cases of direct obstruction that the penal clause would come into play. The stages would be as follows:—

- (1) The parties would or would not file returns. This was at their option.
- (2) The sub-kanungo would go to the village and make enquiries as to changes after due notice of his intended visit to all parties concerned.
- (3) If he could gather no information, and there was evidence to show that there had been changes, and that both zamindars and raiyats were combining to conceal them, the sub-kanungo would report accordingly.
- (4) The Collector would then consider the report and, if he thought fit, call on both parties to file statements.
- (5) Then, if the parties still refused to file statements, or filed false ones the penal clause would come into operation.

Sir William Hudson said that he thought that self-interest would prevent the occurrence of such cases.

Mr. Finucane said that his long practical experience satisfied him that as a matter of fact neither zamindar nor raiyat was ever found to resist contumaciously any reasonable procedure of the Government, and he hoped and believed they would not do so in the matter now under consideration.

Mr. Risley said that a draft Bill must be consistent and complete to stand against criticisms in Council, and that even unlikely contingencies had to be provided against.

Sir William Hudson said that he and others objected to the penal clause, on the ground that it gave the sub-kanungo a handle against both zamindar and raiyat, and that it was by using this handle that he would be enabled to extort bribes and reap his harvest.

Mr. Finucane said that the provision was not essential to the Bill, and might perhaps be modified in Select Committee.

Mr. Stevens remarked that at the last meeting they had been asked what sanction had been provided for such a case.

Sir W. Hudson said that the enquiry had only been made to show that the last state of the zamindar would be worse than the first. He contended that the section would give the sub-kanungo power to harass.

Mr. Risley pointed out that he was to be checked by superior officers, among whom was the Collector.

Sir William Hudson said that the Collector must be omitted from consideration, as he could not be expected to exercise effective control.

Mr. Bell said that as a matter of fact the zamindars would never be disabused of their belief in the power of the sub-kanungos. They would be paid for making entries, and then, in order to avoid the payment, both zamindar and raiyat would combine to conceal changes. The sub-kanungo would also think that he could best justify his appointment and show zeal by harassing all parties for information.

Mr. Finucane said he had not wished to raise a discussion about details, but only to point out what procedure would be followed in the case of combination.

Sir William Hudson said that if the zamindar and raiyat combined and were determined to conceal changes, no procedure could be devised to make them disclose them. They wished to have the provision omitted.

Mr. Stevens then said:—At the end of our last meeting it was remarked that perhaps no further meeting was necessary till the definite orders of Government should be given on the suggestion of quinquennial or decennial revisions. I had intended to make it clear that this suggestion could not be adopted. The Lieutenant-Governor is fully persuaded that the discretion of the Government, which will be responsible for the accuracy of the record, should not be fettered by any conditions as to the periods at which corrections should be made, and he cannot accept the proposals to make these periods quinquennial or decennial.

I regret that Mr. Gibbon is not with us to-day, not only because we shall miss the benefit of his present advice and criticisms, but also because I wish to read to you a part of a letter, to which I attach great importance, written by him on the 24th October 1878, to the President of the Bihar Rent Law Committee:—

"The patwari should be nominated by the district officers, be the servant of Government paid by the Government: he should be, as originally intended, 'a record-keeper,' and nothing but a record-keeper, entrusted with no executive powers. He should have nothing to do with the village collections, granting receipts, giving pattas and kabuliyats, &c., &c.; the zamindar should be compelled to do all this through his own servants."

"The patwari being the record-keeper, the zamindar should be compelled to hand him copies in duplicate of the past year's rent-roll (*jamabandi*) and balance sheet (*wasil-baki*), the current year's tica land accounts (*arsatta*) and instalments paper (*behri*), quarterly returns of all assessment papers ( *khasras*), and also collections made (*senhas*), memoranda of lands relinquished by raiyats and new lands bandobasta with raiyats, with a list of pattas given and kabuliyats received.

"One copy should remain with the patwari, the other be signed by the patwari and returned to the landholder. The patwari should be a good accountant and know something of surveying, in case you think it necessary that all measurement of jots should be made by the patwari. The raiyat should at all times have access to the patwari's papers, and the patwari be bound to afford him all information as to the state of his account.

"Instead of each petty village of from one to two hundred rupees rent-roll having a patwari of its own, the district should be divided into circles with rent-rolls of not less than Rs. 5,000, not more than Rs. 10,000. It should be optional with landholders to dispense with the present staff of men. Half the amount of money now expended by zamindars on the present staffs paid into Government treasuries would be sufficient to secure the services of efficient men, and would be a saving to the zamindars, as it would enable them to get rid of the men who cannot afford to be honest on the small salaries they receive.

"All returns called for by district officers should represent the exact terms of the holdings, however ridiculous to them such terms may appear."

After our meeting on Thursday I told Mr. Gibbon that I had thought of reading this letter to the Conference that day, but that I deemed it better not to do so, since I was afraid that the effect might be to lead to irrelevant discussion, and I might have added that I was unwilling to forestall him in anything he might wish to say. He replied that I might have read it, and that there was nothing in it regarding which he had changed his views as to the conditions which then existed, but that circumstances have since become altered: when the letter was written, there was no survey or immediate prospect of one. But the difference which this change has made seems to me to be at the most one of convenience rather than of principle. In other words, the suggestions then made were proper in themselves, though the survey now, in Mr. Gibbon's opinion, makes it unnecessary that they should be carried out. You will notice that the following considerations underlie those suggestions:—

- (1) It is right that Government should have at its disposal a local agency of contemporaneous record.
- (2) That agency should have no connection with the collection of rents, but should be entirely at the service of Government, and should be nominated and paid by Government officers.
- (3) It is reasonable that the zamindars should pay at least a share of the necessary expenditure direct into the Government treasury.
- (4) It is possible to secure, consistently with due economy, the services of efficient men.
- (5) The areas to be dealt with by these record-keepers should be re-adjusted, and the district divided into convenient and fairly uniform circles considerably larger than those of the existing patwaris usually are.
- (6) The present staff of patwaris should be placed at the disposal of the zamindars, to keep or to dispense with at their option.

These considerations, Gentlemen, are, you will perceive, exactly those on which the scheme now before you is based, and the only question is whether the survey has superseded them. In the opinion of Government it has not done so.

Just before we separated on Thursday, the very natural question was asked, whether the Bill then in your hands was to be taken as official, and as representing the views of the Lieutenant-Governor. You were told in reply that it was based on the Lieutenant-Governor's suggestions, but had not in its present form been considered by him. He has since seen the Bill, and I am authorised to tell you that he has accepted it as a provisional basis of legislation subject to the following modifications on which he would like to be favoured with your opinion:—

- (1) A section should be introduced (after section 12?) imposing on the transferee (or successor) of a tenure, rent-free holding, or occupancy right, the obligation (subject to penalty of fine?) to report the circumstance of transfer to the kanungo. A fee should be levied on each transfer, &c.
- (2) The Collector and Registrar of Assurances should be bound to report to the kanungo all mutations, transfers, &c., under Acts VII (B.C.) of 1876 and III of 1877.
- (3) The fees to be levied under clause (1) above to be credited to a Land Record Fund for the district. All copying fees and fines, &c., to be credited to the same Fund. [It is for consideration whether fees under the Land Registration Act VII (B.C.) of 1876 should not be credited to the same Fund.]
- (4) The 'Land Record Cess' to be subject to a statutory maximum of  $\frac{1}{2}$  anna per rupee of rent, but the rate at which it is to be levied to be fixed annually, with reference to the estimated income from "Fees" and "Fines." The accounts of the Fund to be published annually.
- (5) Omit the proviso to section 4 of the draft Bill.



- (6) Consider whether the officer should not be called *kanungo* instead of sub-*kanungo*. The higher officers to have higher titles.
- (7) The question of amending the Land Registration Act of 1876 and the Transfer of Property Act, with the view of relieving landholders from the obligation of effecting double registrations (*i.e.*, in the Land Record and the Land Registration Offices), and of giving them the option of registering in the Land Registration Office alone, to be considered when the Bill is being prepared for submission to the Government of India, previous to introduction into Council."

I will say in conclusion that the strength of the supervising staff and the area of the sub-*kanungo*'s jurisdiction are matters still open to consideration. If it be found possible for a better paid and higher class of official to cover a larger area, this may be subsequently arranged.

*Mr. Macnaghten* said that *Mr. Gibbon* had authorised him to say, with reference to the letter that had been quoted, that he claimed his right to change his opinions, that circumstances had altered since 1878, and that he did not adhere to the opinions expressed in the letter.

*Sir William Hudson* said that the principal reason that had induced *Mr. Gibbon*'s change of opinion was the state of the law as regards the transfer of *rai-yats*' holdings. As long as that was in a fluid state he could not hold by that former opinion. He (*Sir William Hudson*) was personally of the opinion that in the *rai-yats*' interest the right of transfer should be abolished.

*Mr. Bell* said that they preferred *Mr. Gibbon*'s present opinions to those expressed 15 years ago.

*Mr. Stevens* said that he had not understood *Mr. Gibbon* to say that he had changed his opinions, but that the conditions on which those opinions had been based had been changed. The letter had been read from no desire to convict *Mr. Gibbon* of inconsistency, or to deny him the right to change his views; the object was to show that the Lieutenant-Governor's scheme was not a mere official invention, but was exactly consistent with the opinion once held by an esteemed unofficial adviser of Government of great experience.

*Sir William Hudson* said that he understood that the Lieutenant-Governor's remarks on the Bill were all dependent on the choice that might be made by them.

*Mr. Stevens* agreed and said that he was authorised to say that the Lieutenant-Governor would be quite prepared to come down to the meeting and discuss any particular points or amendments to the Bill.

*Mr. Bell* thought it was not necessary to trouble the Lieutenant-Governor to come.

*Mr. Finucane* said that the Lieutenant-Governor's note consisted of a series of concessions that he believed would be acceptable to the zamindars.

*Mr. Stevens* then asked whether the gentlemen present could now give him an opinion as to which of the schemes was to be preferred.

*The Maharaja of Darbhanga* said that he could not give an authoritative reply, as he had not had time to consult the members of the Bihar Landholders' Association, but that personally, as a choice of evils, he preferred the scheme in which the agent was to have a larger area and be better paid.

*Sir William Hudson* concurred and asked that the complete scheme for the employment of sub-*kanungos* might be circulated for criticism. He then asked what executive orders were now to be issued respecting the registration and training of *patwaris*.

*Mr. Stevens* said that if the sub-*kanungo* scheme was the one preferred by them, he was prepared, under the Lieutenant-Governor's instructions, to stop all further action in the direction of the registration and training of *patwaris*. The entire abolition of the *patwari* system formed part of the *kanungo* scheme.

*Mr. Finucane* said that the Lieutenant-Governor was prepared to consider any reasonable modifications of the provisions of section 17 of the draft Bill when it went into Select Committee. It would not be put forward as a Government proposal to be necessarily passed in its present form.

*Mr. Stevens* added that in all matters of detail His Honour would be prepared to consider any reasonable proposals.

*Sir William Hudson* said that the question of the amount of interference was of great importance to them. Many of them thought that an extension of the area of the circles, and of the period of each revision, would diminish the amount of interference. He believed that three-quarters of the transfers would be succession transfers, involving little alteration of the records, and that the work in an area of 25 square miles would be light, especially if it should not be deemed necessary to recognise as transfers petty family arrangements, by which members of the same family privately divided up their lauds amongst themselves. He was of opinion that the area might be extended, and that, if the period were also extended, a sub-*kanungo* might do the work of 100 square miles.

*Mr. Finucane* understood that the principle that Government would follow would be to extend the area to the maximum consistent with efficient work. Experience would show what that maximum was.

*Sir William Hudson* asked if Government would say definitely that no extension of time could be granted.

*Mr. Stevens* replied that this could not be said. Government could not bind itself as to the period of revision. In the matter of area, his personal opinion was that it would be

dangerous to start by giving the sub-kanungo too large a charge, as this would involve risk of failure, but the general wish to have larger areas and fewer men, and those of a higher class, would be borne in mind; and if experience should show that larger areas could be adopted, it would be easy to make a change.

*Sir William Hudson* remarked that if we began with small areas, it was improbable that those areas would afterwards be enlarged.

*Mr. Risley* asked whether biennial corrections would not be of less value from a landlord's point of view in Civil Court suit than annual corrections.

*Mr. Stevens* thought it was unnecessary to discuss these details at the present time.

*The Maharaja of Darbhanga* asked that the Lieutenant-Governor's remarks might be put on the minutes of the proceedings, and that the zamindars might be favoured with as full an exposition of the views of Government as could conveniently be given.

*Mr. Risley* said that the Bill and rules would be circulated for criticism and would doubtless form the nucleus of a vast amount of literature and discussion.

*Mr. Stevens* said that on Thursday he had laid before them, on behalf of Government, the four principles which the Government insisted on as fundamental. The details to be found in the draft Bill and rules and in the Lieutenant-Governor's remarks were on a different footing altogether. In reference to these the Government was not only willing but anxious to obtain advice and help. It was completely recognised that the gentlemen present were in possession of a practical knowledge of facts which few officers of Government could acquire, and it was highly probable that even those gentlemen themselves could not fully appreciate the interests of other classes not represented at the meeting. He thanked the gentlemen present for their attendance; and on his own behalf he thanked them for making his labours easy by the friendly and courteous manner in which their discussions had been conducted.

The meeting then adjourned.

P. C. LYON,

*Secretary.*

Dated Muzaffarpur, the 7th August 1893.

From—*BARU RAM DHARY SAHAY*, Hony. Secy., Tirhut Landholders' Association,  
To—The Secretary to the Board of Revenue, L.P.

WITH reference to the supply of coolies by zamindars, I am directed to state as follows:—

2. The zamindars are willing to give the services of three coolies at their own cost to accompany each amin that will be deputed to survey their entire and partitioned villages, it, of course, being understood that they will be employed by the amins solely on survey work and for such length of time only as the survey will continue; their employment will be contemporaneous with the continuance of the survey, and it will cease on the evening of the day it is completed. The amins should be directed to give a receipt to each zamindar specifying the date, time and the number of coolies that have been placed by him at their disposal. The zamindars should have the option, on receipt of the notice proposed to be given to them by the Survey Office, as to the probable date of the commencement of the work, and the estimated number of days for which the coolies would be required either to supply coolies on pay in a lump sum of money to the Survey Office sufficient to cover their wages. We consider that Rs. 1-13 per 100 bighas would sufficiently cover them, calculating their wages at Rs. 3 a month. On payment of such sum of money, all responsibilities of the zamindar to provide for coolies shall cease.

3. As regards coparcenary villages, any zamindar giving coolies shall be entitled to recover the amount jointly and severally from the pottidars. I am aware that there is no legal provision to that effect, but consideration might be made for it in the apportionment of costs, and on this subject I shall address you later on.

4. I may add that the advantages of the present offer would only be complete with the co-operation of the amins. As we have every desire to reduce the cost of the survey and meet the wishes of Government, we have made the offer; but as it will go to reduce a considerable amount of the profit which is now being made in the supply of coolies, you must be prepared to face considerable obstacles and opposition from the interested quarter.

5. I am directed to say that His Highness the Maharajah Bahadur of Darbhanga, Raja Rameshwar Singh Bahadur, and Mr. Rott, Manager, Nurhan estate, fully agree with the above.

6. I may add that a large number of zamindars have signed a declaration form undertaking to supply coolies for each amin while the survey is going on or to pay in their wages to the Survey Office in a lump sum at Rs. 3 a month.



*Scheme for maintaining a record of rights in Bihar, circulated to the Indigo-planters and Bihar Landholders' Association, and referred to in the Minutes of the Muzaffarpur Conference.*

THE following draft scheme for maintaining a record of rights is submitted for criticism. Two points are reserved for further discussion, namely—

- (a) The legislation necessary and practicable to give a sanction to the scheme and provide the funds;
- (b) The validity or effect to be attached to the corrections effected in the record from time to time.

The scheme differs in no fundamental particular from the Patwari Bill of 1885, except in regard to—

- (a) the unit of area;
- (b) the rank and qualifications of the officers who are to deal with that unit;
- (c) the information to be recorded.

2. In the scheme which follows, the unit of area is the circle of villages—the circle will contain perhaps 20 villages—instead of the single village. The circle officers will be, not the patwari, but a more highly qualified and better paid Government official, and the information to be recorded will be reduced to the minimum necessary for supplying adequate information as to actual occupation of each field, its area and soil quality, the status of the occupier, conditions of occupation, and the rent and rent-rate payable. The scheme leaves the question of rent-payment to be settled between the tenant and his landlord without any intervention on the part of the executive Government. There will be only one statistical statement maintained, the “jinswar,” which is not directly concerned with the relations of landlord and tenant, and which may be said to have more of an administrative than a fiscal aspect.

This plan will not yield that wealth of statistical, fiscal, and general information which a patwari system furnishes in other provinces; but it will be an enormous improvement on the present state of things, and it will effectively safeguard the interests of the cultivator of the soil; it will facilitate the realization of the landlord's rent, and it possesses advantages of its own in the direction of (a) economy, (b) application to areas, such as Orissa or Chittagong, in which no patwari system exists, and (c) susceptibility of effective control by a smaller supervising staff.

3. An effective system of land records involves—

- (a) field duties;
- (b) office duties.

The field duties reduced to their simplest expression consist of (a) field inspection, (b) map amendment, (c) khasra correction.

The office duties reduced to their simplest expression, or at all events the simplest expression consistent with our objects, consist of—

- (1) Jamabandi.
- (2) Jamabandi goshwara
- (3) Milan khasra.
- (4) Jinswar.

Perhaps, also, as I have said, No. (4) is not absolutely essential; but it is very desirable and should be included. I append drafts of the statistical forms with explanations on the reverse, when necessary, which, in the system I am developing, would be maintained by the registering officer, or, as I shall call him, the sub- (or circle) kanungo. The forms were prepared under my orders by a Committee of Settlement Officers in the Central Provinces, and the references are to the Central Provinces' Patwari Rules. But alterations may be necessary to suit the circumstances of Bengal.

3. I proceed to consider what is the smallest staff by which the duties enumerated above can be efficiently discharged.

I am informed by the Director of Land Records, who has on this point consulted Colonel Sandeman, that in Muzaffarpur, Darbhanga, and Saran there are 3 plots to an acre, while in Champaran and Gaya there are 2½ plots. I shall subsequently indicate a means whereby the number of khasra entries may possibly be reduced: but here I assume that we have to deal with a three-field-to-the-acre country.

## 4. The work of maintaining the record varies with—

- (a) the total area of the circle;
- (b) the cultivated area;
- (c) the number of khasra entries;
- (d) the local condition of the tract, *i.e.*, whether changes in fields, boundaries, possession, &c., are numerous or otherwise, and whether assistance is readily given by the proprietors, raiyats, and so forth.

From my own experience of North Bihar, not very recent it must be said, and from my recent experience of this sort of work on a grand scale in the Central Provinces, I should say that mutations will occur annually in (say) not less than 5 per cent., nor more than 10 per cent., of the khasra numbers; and that an expert man of the Central Provinces' Revenue Inspector class (pay Rs. 25 per mensem) can verify 250 khasra numbers a day, or 6,250 numbers in a working month of 25 days. That means 37,500 numbers during the open season of six months, or, with 3 khasra numbers to the acre, say 20 square miles.

5. I have stated above that possibly the number of khasra numbers might be reduced. The smallness of the average field indicates an intention to give to each individual rice or bhadoi plot a separate khasra number. In Raipur, which is largely a rice country, the rule was that each individual rice plot should be surveyed, but that in khasra writing they might be clubbed together into one *khasra* number—*provided* that (a) the plots are held by the same tenant in the same right; (b) that the fields were alike in soil and position; and (c) that the class of soil was not one on which double cropping was habitually practised. Although the holdings in Raipur consist of isolated plots much scattered, this method of clubbing led to a reduction of about 15 per cent. in the khasra entries. In Bihar it will probably not be necessary to take the soil class and position class into account, while fields making up the holdings are perhaps not so scattered. If this be so, a still larger reduction in khasra numbers may be effected. Say that the number is reduced, then the area with which an expert officer of the stamp I have mentioned can deal during the open season will be somewhat increased, though probably not to the extent, or in so large a proportion, as the khasra numbers are reduced by the plan of clubbing plots.

	Sq. miles.
Muzaffarpur ...	3,003
Darbhanga ...	3,665
Saran ...	2,622
Champaran ...	3,531
Total ...	12,821

6. The areas of the four North Bihar districts are shown in the margin, but there are, so far as I know, no authentic statistics showing the cultivated area of any Bihar district. In these circumstances, perhaps, I may take the estimates of cultivated areas offered in my Report on the Food-supply of Bihar (1876) as reasonable approximations.

They were in round numbers for—

District.	Cultivated area. Sq. miles.
Muzaffarpur ...	2,240
Darbhanga ...	2,600
Saran ...	2,360
Champaran ...	2,250

or say 9,450 square miles of cultivation altogether. This shows three-fourths of the area to be on the average under cultivation and one-fourth waste, which is probably not far from the truth. The *average* North Bihar district has therefore in round numbers, on these calculations, 2,360 square miles of cultivated and 840 square miles of uncultivated area.

7. The maximum number of officers necessary to maintain the record of rights in the cultivated area of such an average district would be 118. The maintenance of the record of the uncultivated land would not be onerous unless much reclamation were going on. Having regard to the possibility of clubbing plots and so reducing the khasra entries, I should say that, for the average Bihar district, 120 such officers—I will call them sub-kanungos—ought to suffice. Each sub-kanungo will want a chainman in the open season.

8. Experience in the Central Provinces has shown that it takes about twice as much time to compile the statistical information as it does to complete the field-to-field inspection. No doubt on the system now being explained the statistical information will not be so elaborate as it is in the Central Provinces, still the sub-kanungos will want some clerical help during the recess months. This I propose to give them by employing literate chainmen each on Rs. 10 per mensem.

We have thus worked out a staff for each district of—

	Rs.
120 Sub-kanungos at Rs. 25	3,000 per mensem.
120 Chainmen-muharrirs at Rs. 10	1,200 „

9. The importance of careful supervision in such a scheme as that under notice cannot be overrated. I would therefore group the sub-kanungos' circles into circuits (of, say, 20 circles), to be placed under a kanungo on Rs. 50 per month, whom I would include in the Subordinate Provincial Service. The entire Land Record Staff of the district I would

place under a Sub-Deputy Collector. The following estimate of total cost for an average Bihar district is therefore tentatively proposed :—

				Rs.
120 Sub-kanungos	...	...	...	3,000
120 Chainmen-muharrirs	...	...	...	1,200
6 Kanungos	...	...	...	300
1 Sub-Deputy Collector	...	...	...	175
				<hr/>
				4,675
Pensionary charges at one-fifth	...	...	...	935
				<hr/>
Per mensem	...	...	...	5,610
Per annum	...	...	...	67,320
Tour expenses	...	...	...	2,500
Stationery and survey appliances	...	...	...	1,180
				<hr/>
Total	...	...	...	71,000

As establishments have a tendency to grow, and as it might be found desirable to employ senior officers as District Land Records Deputy Collectors, this estimate might in time be exceeded. But it ought not, I think, to go beyond Rs. 75,000 per annum or thereabouts.

In this first draft I do not enter into the manner on which the sub-kanungos should perform their duties : that will fall for later consideration.

DARJEELING,  
The 24th June 1893.

A. P. MacDONNELL,  
Offg. Lieutenant-Governor.

No. 748T.—R., dated Darjeeling, the 6th July 1893.

From—H. H. RISLEY, Esq., C.I.E., Secy. to the Govt. of Bengal, Revenue Dept.,  
To—The Secretary to the Government of India, Revenue and Agricultural Dept.

SINCE taking over charge of this province from Sir Charles Elliott, the Officiating Lieutenant-Governor has paid much attention to the question of the Survey and Settlement of Bihar, and I am now to submit, for the consideration and orders of the Government of India, a copy of a Minute which His Honour has recorded on those important subjects.

2. It will be perceived that the chief matter upon which the orders of His Excellency in Council are required is concerned with the maintenance of the record of rights when once it has been correctly prepared. This question is touched upon in your letter No. <sup>1022</sup><sub>13</sub> of the 1st August 1892, which Sir Charles Elliott did not discuss with Sir Antony MacDonnell. So far as the Officiating Lieutenant-Governor understood, Sir Charles Elliott was tending, just before he left India, to adopt the conclusion that the task of maintaining the record was one of very formidable magnitude and difficulty, and that, in view of the inadequacy of the executive establishments available for administration and supervision, and of the opposition of the zamindars to the exercise of any control by Government over the patwari under the existing law (Regulation XII of 1817 and Regulation I of 1819), it was hopeless to attempt anything of the kind; but it was evident that the Lieutenant-Governor's mind was unsettled on the point. He was, however, entirely opposed to legislation having for its object the reform of the patwari system on the lines of the Bill of 1885, for these reasons—

- (a) that such legislation had been negatived by the Secretary of State;
- (b) that a patwari scheme would impose too great a strain on the administration;
- (c) that it would be unpopular with the zamindars.

There was a fourth reason in certain hopes which Sir Charles Elliott seems to have unofficially held out to the zamindars and planters, that Regulation XII of 1817 might be entirely repealed, presumably after a sufficient scheme had been made out for maintaining the record by some agency other than that of the patwari.

3. In the enclosed Minute, Sir Antony MacDonnell has endeavoured to place the case in its historical and practical aspects fully before the Government of India, and has stated with it is hoped, adequate clearness what his own views and recommendations are. He is very strongly of the opinion that the record, when once it has been correctly prepared, should be maintained up to date. By the survey and record the landlords will gain substantially not only in that the recovery of existing rents will be materially facilitated and its cost reduced, but by the increase of rents in cases where the survey enables the landlord to prove that the tenant is holding land in excess of the area for which he is paying rent. In a very large proportion of the holdings in the Bettiah Raj it is believed that such enhancement will be feasible; and although it is hoped that the Manager will not take advantage of the survey to attempt a general raising of rents on this ground, it can hardly be doubted that the fact that he holds this power in reserve will tell in favour of the Raj in any question that may arise between it and its tenants. The presumption in favour of existing rents created by section 104(3) carries with it the consequence that if there be a variation of the rent, it must be in the direction of an enhancement, unless power is given under section 112 of the Act to reduce rent (a power which it is invidious to exercise if it can be avoided, and for which the Officiating Lieutenant-Governor does not now ask). The experience already acquired in the settlement of wards' and private estates under the Act shows that on an average the zamindars may count upon realising a return of from 12 to 15 per cent. on the expenditure incurred. Regarded, therefore, as a mere investment, the making of a survey and record of rights is a source of substantial profit to the landlords. In Bihar they will further gain by the stereotyping of *sir* or *demesne* lands, which play so important a part in the agricultural system of that province, and over which raiyats henceforward will be debarred from acquiring occupancy rights. The planters, who are not solely landlords, and

who regard the acquisition of rights in land as merely subsidiary to the cultivation and manufacture of indigo, will find their position enormously strengthened and their initial expenditure reduced by the survey placing on record the exact nature and extent of all proprietary rights; so that in future the planter will know exactly with whom to deal when taking a lease of a village. He will also be enabled, on occasions, to ignore the zamindars and to acquire effective rights for the purpose of cultivating indigo by entering into agreements with the raiyats direct.

4. So far, then, looking at the matter from the raiyat's point of view, it will be seen that for a survey and record which will lead probably to an enhancement of their rents, and certainly to a curtailment of the area within which the rights conferred on them by the Tenancy Act can take effect, the raiyats will have to pay a sum amounting in the aggregate to one-half of the charges imposed upon the land. Clearly they have the strongest equitable claim to some substantial counterbalancing equivalent for proceedings which are likely, or which have a tendency, to produce such results. This equivalent is chiefly to be found in the maintenance of the record of rights, which, if it mulets the raiyats now, will, it must be hoped, give them freedom from illegal demands and adequate protection in the future. Sir Antony MacDonnell does not deny that the survey and record of rights, especially if conducted in the way indicated in paragraph 34 of the Minute, will do some immediate good to the raiyats; and though he regrets that the operations were begun without previous provision being made for maintenance, he thinks they must be prosecuted now. But he does very earnestly urge on His Excellency in Council that application should be made to the Secretary of State for permission to legislate for a cess of such amount as will enable this Government to create an efficient record establishment such as is detailed in the scheme marked B attached to the Minute. If the Secretary of State declines to accord this permission, then, if the record is to be maintained at all, no means is left except to organise and administer a patwari system in Bihar under the old Regulations XII of 1817 and I of 1819, either as they stand or with the minimum of amendment that may be found necessary in order to make them workable enactments.

5. The Officiating Lieutenant-Governor is by no means sanguine that a Land Record establishment can be satisfactorily worked under these Regulations, the terms of which are in many respects obscure and indefinite, while the procedure laid down is cumbrous and antiquated. His fear is that it cannot, and that the strong and continuous opposition with which the effort to work it will certainly be met, will add enormously to the difficulties which must attach to any scheme based on the Regulation. No record scheme can be satisfactory when the Revenue authorities and the Executive Government have not exclusive and complete control over the appointment and remuneration of the agency by which the scheme has to be carried out. Although the Officiating Lieutenant-Governor thinks that, if no other resource is left, an effort should be made to maintain the record under Regulation XII of 1817, he trusts that this Government may not be placed in what he cannot but regard as a position of very exceptional difficulty and embarrassment, but that power may be conferred upon it to organise by legislation upon modern lines such a local Land Record establishment as may be sufficient for the end in view.

6. If the Government of India can see its way to expressing general approval of the views stated in the Minute, the Officiating Lieutenant-Governor will be in a position, when he visits Bihar at the end of the current month, to act in pursuance of that approval, and he is not without hope that he may be able to induce the zamindars to accept a compromise and to intimate their readiness to accept scheme B as set forth in the appendix to the Minute. For his own part the Officiating Lieutenant-Governor considers that in the present circumstances of Bihar a land record scheme which concerns itself merely with the permanent facts and conditions of tenancy, leaving the registering of payments of rent to the parties concerned, is all that need be insisted on.

## MINUTE ON THE SURVEY AND RECORD OF RIGHTS IN BIHAR, AND ON THE SUBSEQUENT MAINTENANCE OF THE RECORD.

THE subjects of this paper are perhaps the most difficult and important of any now pending before the Bengal Government. I had the advantage of discussing them with Sir Charles Elliott before he went on leave, and of being placed to some extent in possession of his views on points which are still unsettled. On other points Sir Charles Elliott's opinions are to be readily ascertained from the correspondence. Since taking over charge of the Province, I have given my anxious attention to the question, and have consulted the responsible officials and several unofficial gentlemen on, I think, every phase which it presents. It is now necessary for me to state my provisional opinions on unsettled points, and to indicate the action which should be taken on them, though I retain full liberty to modify my views should I see reason to do so after consultation with the zamindars of Bihar on my approaching visit to that Province. But before stating my present opinions, it will be useful to trace as briefly as may be the origin and the successive stages of the development of this question of a survey and record of rights in Bihar. This retrospect will throw some light on the measures we should adopt in the future.

2. It is unnecessary for my present purpose to go further back than Lord Ripon's administration, when the Government of India addressed to the Secretary of State the important Despatch No. 6 of 21st March 1882, in which the whole agrarian question in Bengal was summed up, and the outcome of the various enquiries and Commissions that had been appointed to enquire into it set forth and formulated. One of the proposals (head XIII, paragraph 108 of the Despatch) therein made was "to take up the question of introducing throughout Bengal the system of village records and field surveys, commencing with the Patna Division." The Survey and Record of Rights now in progress in Bihar are therefore immediately due to the initiative of the Marquess of Ripon's administration. But before that time they were among the most urgent recommendations of the Famine Commission, and had been in principle recognized in the time-expired Agrarian Disputes Act VI (B.C.) of 1876: since then they have been supported by all the most competent officers, who have had to deal with the subject, as the only effective means of improving the condition of the Bihar raiyats, whose condition appears to be more depressed than that of any cultivators in the whole of India. I may add that in the area within which the survey and record have been already completed, the peace and security which they have produced are, I understand, very highly appreciated by zamindars and raiyats alike, though as time advances and the record becomes obsolete, it may be doubted whether this gratifying state of things will be adequately maintained.

3. To the Despatch of the 21st March 1882, Lord Hartington, then Secretary of State, replied in his letter No. 54 (Rev.) of 17th August 1882, paragraph 19 of which runs thus—

"As regards head XIII, while fully admitting the advantages which would attend the establishment of village records and accounts, the formation of a record of rights and the introduction of a field survey, I cannot avoid the apprehension that the difficulties of carrying out these measures in those parts of Bengal in which village accounts and accountants, if they ever existed, have long ago entirely disappeared, even from tradition and remembrance, may prove greater than you anticipate. Your present proposal, however, merely contemplates an experimental commencement of the work in the Patna Division of the Province of Bihar, where the need for it is, you think, most pressing and the conditions least unfavourable, and to this I will make no objection. I shall be glad, however, to receive full reports of the progress of the work, of the expenditure likely to be incurred, of the difficulties which may be encountered, and of the expedients by which they may, in your opinion, be overcome."

4. The Government of Bengal (then administered by Sir Rivers Thompson), whose Revenue Secretary I was at the time and for four years afterwards, was thus confronted with the most important administrative undertaking of a fiscal character since the Permanent Settlement, and it began work by considering, *first*, what agency, and *secondly*, what legislation, was necessary to give effect to the policy enjoined on it. Its consideration of the question of

agency led to the proposal made in the Bengal letter to the Government of India, No. 309T.—R., dated 1st June 1883, to create a Department of Land Records in Bengal. The Government of India, in forwarding\* that proposal to the Secretary of State, made the following remarks, which I quote as being the earliest opinion to which I wish to refer on the subject of the maintenance of the record of rights when once it had been correctly prepared :—

\* See despatch No. 18 of 25th September 1883.

“All attempts to obtain trustworthy agricultural statistics or to maintain correct village records of rents and tenures such as are found in other parts of India have failed in Bengal owing to the decline of the patwari and kanungo system. This defect is prominently noticed in the Report of the Famine Commission, and its evil consequences have been brought clearly before us in dealing with the rent question in Bengal. We agree with the Lieutenant-Governor that legislation (on the rent question) itself will not solve the difficulties which have grown up in many parts of the province, and we think that *in Bihar at least a survey and reorganization of the patwaris will be necessary when the Rent Bill passes into law*. This great undertaking cannot in our opinion be satisfactorily completed without the continuous supervision of a special department; and to avoid unnecessary delay in entering on important measures, we think that steps should be immediately taken to constitute the Department of Land Records. We have ascertained from the Bengal Government that though the measures in contemplation for the above purpose cannot be exactly formulated while the provisions of the Rent Bill are still in some respects unsettled, it hopes to be in a position to legislate on the subject (of patwaris) early next year.”

5. The Secretary of State in his letter No. 24, dated 10th April 1884, sanctioned the creation of a Department of Land Records as a provisional arrangement which has since become permanent, and then proceeded to make the following remarks with special reference to the second subject, namely, legislation, to which, as stated in paragraph 4 above, the Government of Bengal had to address itself in order to give effect to Lord Hartington's orders of August 1892:—

“It is impossible to doubt that the results of a general field survey of Bengal and the establishment of detailed village records, if they be found practicable, will be most beneficial. But the task must be acknowledged to be a gigantic one, whether its difficulty, its cost, and the time it must take be considered, and the opposition which may probably have to be encountered on the part of both landlords and tenants, and I am unable to sanction any step with a view to so great an undertaking until I am furnished with fuller information than that which I at present possess with respect to the methods to be adopted, the expenditure likely to be incurred, and the difficulties which may have to be met. These points should not be reported on without the opinion of the Board of Revenue and of the chief administrative officers having been obtained.”

6. The question of legislation in amendment of the Patwari Regulation was therefore postponed pending the submission of further information to the Secretary of State, and with a view to procuring such information the Board of Revenue (and administrative officers through the Board) was consulted. I make the following extract from the Board's reply (letter No. 841A, dated 23rd September 1884, to the Government of Bengal):—

“The importance of this question (maintenance of the record of rights) is only equalled by the difficulty of dealing with it—a difficulty so great that some officers (notably Mr. Wilson of Midnapore) look upon it as fatal to a proposal of attempting a survey at all. It must be conceded that there is no agency in Bihar (Bengal?) to which the duty of maintaining the village records and maps could be committed, and that it will be necessary to create an organization for the purpose. Throughout the greater part of Bihar there are village servants known by the name of patwaris, but they would not, and indeed could not, discharge the duties performed by patwaris in the North-Western Provinces, and the supervising staff, on which the efficiency of the patwaris depends, does not exist all. The difficulty, however serious it may be, must be faced and surmounted. *The rent bill would lose half its usefulness if it were not supplemented by a survey and record of rights, and the survey would be of no value unless measures were taken to maintain its accuracy from year to year.*”

7. The Hon'ble Mr. Reynolds, who was then in charge of the Land Revenue Department of the Board of Revenue, concluded his Minute by expressing concurrence in the views† of Sir Charles Bernard that though there might be opposition and difficulty in the way of the proposed survey and record operations, neither would be insurmountable. Fearing, however, that a general settlement of rents might, on a rigid interpretation of the law untempered by equitable considerations, lead to universal enhancements of rent in Bihar (where reports went to show

† Stated in a Minute, dated 18th February 1884.



that rents were already very high), Mr. Reynolds advised the limitation of the operations to a survey and record of existing rights and rents alone.

8. The Government of Bengal, in forwarding the Board's report to the Government of India (Bengal letter No. 2426T.R., dated 25th October 1884), expressed the following opinion:—

"While thinking that in 'exceptional circumstances and special areas,' as stated by the Hon'ble Mr. Ilbert\* in introducing the Tenancy Bill, we may have to settle rents, the Lieutenant-Governor is quite of the opinion that anything like a general settlement of rents in any district is to be deprecated. He accepts the view that on a survey introduced under the orders of Government, if the record of rights shows the existence of exorbitant rents and the raiyats put forward claims for reductions, then only should such claims to have fair rents fixed be entertained."

9. The Government of India (letter No. 996A. of 20th November 1884), in acknowledging the receipt of the Bengal letter and calling for further information, observed—

"It is hardly necessary to remark that the value of the survey and the record of rights will be incommensurate with the cost unless an efficient staff of patwaris and supervisors is organized on the lines suggested in Mr. Reynolds' Minute. \* \* \* If it be decided to commence operations in 1885 or 1886—and on this point the Government of India will expect to be advised hereafter by the Government of Bengal—His Excellency the Governor-General in Council trusts that no effort will be spared to obtain at an early date the requisite legal powers to organize the patwari staff, and that the work of organization will be vigorously prosecuted."

10. In accordance with these instructions, and in fulfilment of the original intention of legislating mentioned in paragraph 4 above, I introduced a Bill into the Bengal Legislative Council to amend the Patwari Regulation XII of 1817, and I attach to this Minute a copy of my speech on that occasion, as it sets forth in sufficient detail the history and existing condition of the patwari system and the reasons for its proposed reorganization.

11. One object of this Bill was to levy the cost of a reformed patwari establishment by a cess on the land which, it was contended, would not amount to more than the people already paid for patwaris under the designation of "neg" or customary fees. The intention was to fund these payments, and from the amount so funded, which would be under official control, to pay the patwari and supervising kanungos. The Secretary of State was not disposed to sanction the imposition of a cess for an object the success of which he regarded as doubtful: and it was with a view to solve his doubts that it was determined to make an experimental survey and record of rights in a selected area. Accordingly, the Patwari Bill was suspended, pending the result of this experimental survey and record of rights, which was begun under the direction of Mr. E. W. Collin in about 500 square miles of the Muzaffarpur district.

12. While this experimental survey was in progress, further correspondence passed between the Government of Bengal, the Government of India, and the Secretary of State, in regard to the latter's instructions to charge the cost of the experimental operations to Provincial Revenues, and generally in regard to the Patwari Bill, the object of the correspondence on the latter subject being to remove His Lordship's objections to this proposed measure. In this correspondence the Government of India, supporting the Government of Bengal, said:—

"We need not again point out what has been already admitted by all parties in the correspondence, that an elaborate survey and record of rights are a pure waste of money, unless due provision is made for keeping the information they furnish up to date. \* \* \* Unless Your Lordship should be of opinion that the explanations now given are sufficient to remove the objection entertained by your predecessor to the inclusion in the Patwari Bill of authority to levy a cess for the payment of village accountants, we concur with the Bengal Government that the only course to pursue is to close the cadastral survey at the end of the present season, and to abandon altogether for the present the attempt to obtain an accurate record of the land and of the incidents of its tenure."

13. The efforts of the Government of India were, however, fruitless; the Secretary of State in his letter No. 21, dated 15th July 1886, stated that his objections to the cess were not removed, and he considered that, under the circumstances, "the only course to pursue was to abandon the proposed measure



for the present." This decision involved the abandonment of the experimental survey and record, which was accordingly brought to an end after a large area had been cadastrally surveyed and a record of rights completed in about 80 square miles of that area. No provision was made to maintain this record up to date, and it must now have become somewhat obsolete; but, as observed in paragraph 2 above, it has given much satisfaction to those interested in it.

14. This order of the Secretary of State's closes what may for my present purpose be regarded as the first stage in these proceedings. During this stage it was, to use the words of the Government of India just quoted, admitted by all parties, firstly, "*that an elaborate survey and record of rights are a pure waste of money unless due provision is made to keep the information they furnish up to date;*" secondly, *that the agency necessary to maintain the record should be provided before the survey and record were begun.*

15. The second stage of these proceedings is practically an endeavour to carry out, without legislation, the accepted policy in regard to the record of rights in Bihar. Legislation on the patwari question having been denied, a change of opinion in regard to its necessity gradually supervened; it being, as the Board observed, a comforting doctrine that what is unattainable is also undesirable. But apart from this natural disposition of practical administrators to adjust measures to circumstances, the change of opinion can, I think, be traced to two distinct sources, one dating from Sir Rivers Thompson's administration, the other from that of his successor, Sir Stuart Bayley. While the experimental survey and record was going on in Bihar, the Bengal Government was also considering the desirability of introducing surveys and record of rights into certain estates managed by the Court of Wards; and in these estates, being limited areas (in some of which, moreover, acute disputes regarding rent actually existed), the Bengal Government did not attach the same importance to the maintenance of the record as it did in the case of a whole district and much more a whole province, when the object was not only to allay existing acute disputes, but also to make lasting provision for the prevention of disputes in the future and for the settlement of a basis of agrarian prosperity. This policy and view of the application of section 101 of the Tenancy Act in regard to Wards' estates was set forth in the Bengal letter No. 2419—913L.R., of 1st December 1886, and there is no doubt that once started it obtained a hold over the spirit of the administration, and an extension which was not at first intended.

16. This result was helped by the report which Mr. Collin in 1887 submitted on his experimental survey operations, and this report is the second source to which I trace the change of opinion referred to in the preceding paragraph. Mr. Collin, who is an officer of ability and judgment, there said—and his words, which are the outcome of practical experience, afford a striking confirmation of the wisdom of the policy of survey and record of rights embodied in Chapter X of the Tenancy Act:—

"Some such measure as survey and record of rights is absolutely necessary if the rights of the raiyats are not to be entirely confiscated, and if a system by which they have been hitherto deprived of more than half of their legitimate share of the profits of their land is not to be perpetuated."

And again—

"The main point is to ascertain the existing rent and certify it to the raiyat. \* \* \* I believe it is a sufficient protection to the raiyat to ascertain and certify his rent to him. The danger lies in his ignorance of his rental."

Mr. Collin, it will be seen, supports the view urged by Mr. Reynolds and Sir Charles Bernard, as stated in paragraph 7 of this Minute—a view in which I entirely concur—as to the desirability of *not* interfering with rents whenever interference can be avoided.

17. Mr. Collin advocated a survey and record of existing rights as good and necessary in itself and worth the cost, even if not afterwards maintained. He did not, indeed, undervalue the great advantage of maintaining the record; but he had no faith in any system of maintenance by unreformed patwaris, and he thought with Mr. Finucane (see paragraph 26 below) that something might be done by making zamindars file returns and checking these by Government

agency. Even this way of looking at the matter was not followed by Mr. Norman, then Collector of Muzaffarpur, who, in forwarding Mr. Collin's report, not only denied the possibility of maintaining the record by means of patwaris or zamindars, but went the length of affirming that its maintenance would be of no use or advantage.

\* Letter No. 608A., of 15th June 1888.

18. On this report and these recommendations the Board, having been consulted, replied\* as follows:—

“The Board cannot console themselves with the acceptance of Mr. Norman's opinion that it matters very little whether the record is maintained or not. On the contrary, they are firmly persuaded that the record will year by year become of less and less value unless adequate measures be taken to ensure its periodical examination and correction, so as to bring it into accordance with the state of things actually existing at the time. The Board would greatly regret to see these registers,† on which a large sum of public money has been spent, and which are described by the Commissioners as excellent and well-arranged, gradually becoming ‘waste paper’ for want of supervision and correction.”

† Of Mr. Collin's survey.

“But in a permanently-settled area, such as is now under consideration, the Board are reluctantly compelled to say that the existing law leaves the Government practically without any resource. It is hopeless to expect that the record can be maintained by the agency either of patwaris (unreformed) or zamindars. The feeling which has prompted Messrs. Finucane and Collin to urge the adoption of some measures which will give a permanent value to the work in which they have taken so much interest, and which they have accomplished so well, has the entire sympathy of the Board. But the Board would be wanting in their duty if they failed to represent that Government has practically before it only the alternatives of abandoning all measures for the proper maintenance of the records of the Muzaffarpur survey, or of invoking the aid of the Legislature for the establishment of an efficient system of patwaris and kanungs.”

Thus it will be seen that the Board of Revenue adhered to the principles of what I have called the first stage of the proceedings, while the Government had begun to vacillate.

19. The Board's views did not commend themselves to His Honour Sir Steuart Bayley, who, in submitting Mr. Collin's report on the experimental survey to the Government of India, had supported the proposal to extend to the rest of Bihar a survey and record, even if it were not afterwards to be maintained. And the Government of India, in its letter No. <sup>433R</sup><sub>30-2</sub> of 16th June 1888, agreeing with the Bengal Government, said—

“In view of the facts brought out, the arguments urged against a survey and record until an agency was made to maintain it lose some of their force. That the full benefits of a record of rights cannot be secured unless it is continuously maintained is obvious; and the Government of India is not without hope that a solution of the difficulty will be found in the enquiries in progress. But even were it otherwise, His Excellency in Council is forced by the recent experiment to the conviction that a survey would be justified by the unquestionable advantages it would confer in determining existing tenures and rents in a manner which could be asserted and maintained under the Tenancy Act.

“Holding these views, and apart from the financial cost of the operations, His Excellency the Governor-General in Council entirely concurs in the opinion of His Honour the Lieutenant-Governor that the experimental survey has been a success, and that it is desirable to extend the measure to other tracts where uncertainty as to existing rents prevails.”

20. The correspondence was submitted to the Secretary of State, who, in his letter No. 66 of 16th August 1888, said—

“I observe you incline to the opinion that even if the continuous maintenance of the village record cannot be fully secured, still an accurate record of existing facts would be of great advantage as affording a basis on which a better state of things might grow up under the Tenancy Act. \* \* \* If the work is to be undertaken in other localities, the cost of *and subsequent maintenance of the village record* must be kept within the narrowest possible limits of cost, *as the expenses will have to be defrayed by the classes and localities concerned.*”

I invite particular attention to the words I have italicized, as they seem to indicate the possibility that the prohibition against legislation on the patwari question may be reconsidered by the Secretary of State. For the rest His Lordship adopted an attitude of benevolent neutrality and watchfulness, as regards the new departure, rather than of active approval; but he gave the Government of India a free hand.

21. Thus the Governments of Bengal and India, gradually abandoning the doctrine that a survey without subsequent maintenance of the record was a waste of money and useless, came to think that a survey and record without subsequent maintenance is useful, and worth the cost. The reasons for this change were—

- (a) the strong necessity that existed, and still exists, for supplementing, in the interests of the depressed tenantry of Bihar, the operation of the Tenancy Act by a record of tenants' rights and status;
- (b) the Secretary of State's opposition to legislation on the patwari question.

22. But while deciding on a survey and record even without provision for subsequent maintenance, the Governments of Bengal and India and the Secretary of State have not ceased to insist on the desirability and importance of maintaining the record up to date, and the later communications from the Government of India, especially the letter No. 1623 of 1st August 1892 (which I had no opportunity of discussing with Sir Charles Elliott), indicate a marked urgency of desire that provision should be made for maintaining the record when once it has been correctly prepared.

23. In all this I entirely agree. It is true that my position in regard to this question, before I left the Bengal Government in 1886, had been not only that the record should be maintained when framed for a large tract of country, but that it should not be begun till provision for its maintenance had been made. On these points my opinion has undergone no change; and undoubtedly I should be glad if the Secretary of State were again approached with a view to our taking power by legislation to raise as much money as will enable us to maintain the record, if not by patwaris then in the way I shall presently indicate, which involves the minimum of interference between landlord and tenant. In this way I clearly see my road to the effective maintenance of the record without any trouble, and at a cost to the zamindars and raiyats which would be trifling compared to the immense benefits which both would reap from such a measure. I have suggested in paragraph 20 above that His Lordship might possibly be now willing to consider the fresh representations in regard to legislation, which I trust the Governor-General in Council will permit us to make. But in any case His Excellency in Council may rely on me to give effect to the policy he has been pleased to sanction.

24. In a subsequent portion of this Minute I shall consider the procedure for making the record, the agency for making it, and the cost. Here I wish to dispose, so far as possible, of the question of maintenance, and to state the measures I propose to take to that end. In June 1892 Sir Charles Elliott, addressing the Board of Revenue, proposed a scheme for maintaining the record, which depended for its efficacy on the raiyats and others reporting to a registering officer all changes in their holdings which might occur from time to time. I have carefully examined that scheme in the light of my own knowledge of Bihar and of recent experience acquired in the Central Provinces, where survey and record operations are now in progress on a larger scale than elsewhere in India. My conclusions were that the scheme would not give the information which the Lieutenant-Governor wanted, and that even if it did, the information would be inadequate for the purposes of an effective record. The local criticisms on the scheme were of a similarly unfavourable character, and Sir Charles Elliott himself being now satisfied that the scheme would not work, has agreed to abandon it.

25. Sir Charles Elliott's idea was to have a self-acting or automatic and self-supporting scheme not resting on local enquiries or on the maintenance of the village map. He hoped that the people, rent-payers and rent-receivers, would by the operation of certain sanctions explained in the letter be induced to report mutations, and would, by various fees, pay for the recording establishments. But it may be taken as an axiom that no system of maintenance is of use which does not rest on the bases of village inspection, map amendment, and  *khasra*  corrections on the spot. It is also doubtful whether, as  *khasra*  corrections will probably not annually be more than about 5 per cent. of the entries, the fees levied from the persons served,  *i.e.* , whose record is

corrected, would pay for the correcting establishment, unless they were pitched high. To levy much fees would be contrary to practice in other provinces, and no doubt unpopular. It follows, with certainty, that no self-acting agency would be effective, and with probability, that an effective record agency must be paid for from some other source than fees charged for the special services rendered.

26. In 1885, the Director of Land Records in Bengal prepared a scheme which I understand the Bihar zamindars, believing  
\* See enclosure to the Director of Land Records' letter to the Board, No. 767, dated 19th November 1885. legislation to be imminent, accepted\* subject to certain conditions. This scheme is given in Appendix A, and has some points in common with the proposals made by Sir Charles Elliott while it differs from these (*inter alia*) in requiring new legislation for the imposition of a special cess. It was, however, disapproved by the Board and by the Government of Bengal for the reasons expressed in the following extract from the Bengal letter to the Board of Revenue of the 9th January 1886:—

"In reply, I am to say that the Lieutenant-Governor having perused your letter and the careful report prepared by Mr. Finucane, comes to the same conclusion upon the question as that at which the Board have arrived.

"Sir Rivers Thompson is unable to accept the proposals which have been made, and to which Mr. Finucane has given his support that the present staff of patwaris are to be henceforth regarded as zamindari servants paid from the cesses now levied on their account, nor that in his record of rights and of payments the patwari shall depend for his information upon returns and accounts furnished to him by the zamindar, and that he should confine himself to ascertaining how far these accounts agree with what the raiyats admit to be correct. To define the duties of a patwari in such terms would, the Lieutenant-Governor considers, be fatal to the maintenance in the villages of an accurate and effective record of rights. Furthermore, it must be made clear that no cess whatever shall be levied from the raiyats for payment of patwaris except that which is realizable under the Bill.

"The patwari's work should, in Sir Rivers Thompson's opinion, represent the results of his own personal observation and inspection, and should not entirely depend on its operation upon the information which the zamindar supplies to him. A system under which the patwari makes his original record entirely depend upon returns and accounts periodically given to him by the zamindar must lead to conflict and controversy.

"It is not necessary that any rule should be made that all payments of rent must be made in the presence of the patwari; but in the work connected with the maintenance of the record of rights, measures should be adopted to make the patwari's action, as far as possible, independent."

These objections appear to me now, as they did in 1885, to be fatal to such a scheme; but I understand that Mr. Finucane has since represented that his proposals were not fully understood at the time, and that they are not really open to the objections stated. This may be a matter for subsequent consideration; but in any case if as a last resource we are compelled to look to the patwari of Regulation XII of 1817 for the maintenance of the record, then we must deal direct with the patwari himself, and control him in the actual preparation of the village papers.

27. I am well aware that the great zamindars and landlords of Bihar are opposed to an enforcement of Government control over the patwaris under Regulation XII of 1817. Herein I confess to having some sympathy with them, and I do not propose to employ the patwari of Regulation XII of 1817 for the purpose of maintaining the record, except as a last resource. But I attach such extreme importance to the maintenance of the record, that failing other means I should endeavour to work through that Regulation. I am, however, anxious to meet the wishes of the Bihar landlords, many of whom are my personal friends, and for all of whom I entertain a strong liking; and I have therefore framed a scheme which is marked B in the enclosures to this Minute. That scheme dispenses with the patwari altogether, or rather substitutes for him an officer on higher pay and of superior status, whose functions would correspond more closely to those of the kanungo under the Emperor Akbar's land system, as I explained in introducing the Bill of 1885 into the Bengal Legislative Council. The sub-kanungo of scheme B would, like the original kanungo established or recognised by Raja Todar Mal, be the servant of Government alone, and would be in no way subordinate to the zamindar. This follows from the fact that the scheme, broadly speaking, limits the maintenance of the record to the facts of occupation, status, and rent payable;

leaving the question whether in any case the rent has or has not been actually paid to be settled between the raiyat and his landlord, without any interference on the part of the Executive Government. This is the minimum of maintenance on which Government must insist in the interests of the raiyats; and I am, subject to the orders of the Governor-General in Council, willing to abide by it for the sake of concord, and compromise with my Bihar friends. This scheme will cost about Rs. 70,000 per district annually, but where is that sum to come from if we do not legislate? Only a very small portion could be supplied by copying fees and such like miscellaneous income, and it would not be fair to the general public to pay the entire sum from Provincial Revenues even if these revenues were able to afford it, which they are not. The bulk of the money must come, if it is to be raised at all, from the people interested, "from the classes and localities concerned," as the Secretary of State said in his letter No. 66 of 16th August 1888, already referred to in paragraph 20 above. That the money would be cheaply and well spent, I have no doubt at all; for with such a record as I contemplate, we should attain what we have been striving for since the Permanent Settlement—a sufficient knowledge of the facts of each holding and estate, whereby agrarian disputes would be reduced to a minimum, such disputes as occurred would be susceptible of easy and speedy decision, and, for the first time within a century, a real and lasting foundation would be laid for the agricultural prosperity of Bihar.

28. If the Bihar zamindars reject the scheme which, in my anxiety to meet their objections, I propose, and if, moreover, the Secretary of State maintains his veto on the imposition of a cess for maintaining the record, then, undoubtedly, there are only two courses before us: to abandon all attempts to maintain the record, and prepare for ourselves, 10 or 15 years hence, the same chaotic state of things as we now find in existence; or to see what can be done under Regulation XII of 1817. Having already stated that I regard the maintenance of the record as of extreme importance, it will be understood why I shrink from the former alternative. I am well aware of the difficulties in the way of working the patwari of Regulation XII of 1817, difficulties which I myself and abler Revenue officers have thought insurmountable. But an actual experiment has never yet been made in such circumstances as we are by our survey and record calling into existence. And it may possibly be that practice may falsify our theory, and show us how, by some slight alterations in the Regulation, consistent with its principles, means may be found to make it a more effective instrument in our hands. At all events I cannot entertain any proposals—some have, I understand, been made—to repeal Regulation XII of 1817, and so abolish the slight control Government now has over the registered patwari—except on the condition of the provision of an efficient substitute, such a substitute, for instance, as would enable us to work scheme B in the Appendix.

29. And this, I understand, was the attitude adopted by my predecessor up to the eve of his departure. It is true, I believe, that Sir Charles Elliott contemplated the abolition of the Patwari Regulation (XII of 1817) when an effective scheme for maintaining the record had been provided. But the hopelessness of devising a scheme which should not involve the imposition of a cess, and yet be independent of Regulation XII of 1817, had apparently come home to him, for in the seventh paragraph of the Resolution on the Survey and Settlement Reports for 1891-92, which was recorded by him on the day before he made over charge of these Provinces to me, I find the following expression of his views on the subject of the training of local agency for the purpose of executing and maintaining surveys and records of rights:—

"Another satisfactory feature of the year's work is the progress made in training local men in survey work. The employment of local agency on survey and settlements not only materially reduces the cost, but *provides an efficient means of maintaining the maps and records when the work is complete.* During the season under notice the following local establishments were put through a course of instruction and will be utilized as far as

"In the Champaran district, 181 patwaris and their relatives.

"In the Muzaffarpur district, 270 patwaris and their relatives and other local men (80 more were under training).

"In Tippera, 300 local men (Bengalis).

"In the coparcenary villages in Bihar, it is possible that some difficulty may be experienced in arranging for a patwari or other resident of the village to do the survey and record writing, but it is hoped that this difficulty may not be insurmountable. Section 5 of Regulation I of 1819 empowers the Collector, with the approval of the Board of Revenue, to appoint patwaris in such villages with or without reference to the proprietors, and if it is found that the latter cannot agree among themselves to nominate a joint patwari, it may be necessary to take action under this section."

This paragraph, it will be observed, refers to the questions of reducing the cost of the Bihar survey and maintaining the record hereafter, and it distinctly contemplates the employment of the patwari not merely to make the survey in the first instance, but also to maintain it when made. The injunction to have recourse to section 5 of Regulation I of 1819 in order to provide patwaris in those villages where, owing to the number of joint proprietors, no registered patwari has at present been appointed, leaves no doubt on the point that the patwari to be so employed is the statutory patwari, *i.e.*, the patwari appointed by the Collector under the Regulations.

I am aware from my conversations with Sir Charles Elliott that he did not wish to force the inclinations of Bihar landlords in connexion with the employment of the Regulation Patwari to maintain the record. Neither do I. But if I am driven to it, if I have to choose between abandoning the attempt to maintain the record, and endeavouring to maintain it through Regulation XII of 1817, then I shall decide on the latter course, though I shall do this with reluctance.

30. This conclusion to which I have come, to work under the Regulation XII of 1817, if I am precluded from working outside it, confirms a decision which, on the independent ground of economy in survey expenditure, I have already taken, while it links up and harmonizes, so far as may be, our present policy and practice with the policy which, as stated in paragraph 14 above, was approved in the earlier stage of these proceedings. The decision is to take up in earnest the registration of patwaris under the Regulation (this was begun in 1876 and carried some length in Bihar), and to employ none but registered patwaris (or, failing them,amins) on the survey and record operations now in progress. I do not conceal from myself the probability that this endeavour to procure registered patwaris even for survey work will be met with opposition by Bihar zamindars. They will probably think it is the thin edge of the wedge, and that having got patwaris registered for survey work, I shall retain them for the maintenance of the record. Undoubtedly I shall retain them if I am driven to maintain the record under Regulation XII of 1817; but that is not my primary object in getting them registered. My direct and primary object is to reduce the expenditure on the survey and record operations, and to admit of great reduction by the

(to meet the Board of Revenue's reasonable wishes) that, although the registered patwari is bound to survey his village as part of his statutory duties and without further payment, it may be well, as he is not always well paid, to give him a special allowance as a reward for good work.

object, I should, in the interests of economy (and of the future maintenance of the record if we *must* act under Regulation XII, 1817), be disposed to suspend the survey and record operations until the patwaris had all been registered and trained to survey. But I apprehend that the obligation to carry on the work from the point at which I find it leaves me no choice but to work throughamins, when registered and trained patwaris are not forthcoming.

31. And this brings me to a very important matter indeed. I find that in some places Colonel Sandeman has been making the survey and record through so-called patwaris who are not registered, and are in point of fact zamindari servants pure and simple, paid by the zamindar, and merely temporarily lent by them to the survey authorities. Over these men no effective control can be exercised. They work or leave off working just as they please, and if detected in making false measurements or false entries, there is no means of adequately punishing them. The Board of Revenue and the Director

of Surveying and Mapping to a scheme of maintenance outside Regulation XII, I shall, after the survey is over, see what I can do to assist them in procuring the repeal of Regulation XII of 1817, and thus cut the patwari loose from all official control and supervision. If then I had a free hand in this matter, and time were no



of Land Records are strongly opposed to this system; the Settlement Officer has objected to it; and the Superintendent of Surveys, Colonel Sandeman, is himself dissatisfied with it. Certainly I consider it open to the very gravest objections. As the Board of Revenue observe, "it cannot be forgotten that one of the main objects of the Bihar Survey and Settlement was the protection of the raiyats, and the Board consider that the experiment of having a large part of the work done by the servants of the very party against whom, if any one, the raiyats require protection, must be attended with some hazard." Manifestly no real trustworthiness can attach to records prepared by the servants of one of the parties concerned. To obviate this formidable objection, Colonel Sandeman has been employing muharrirs to check the entries made by the zamindari patwaris. But this double agency adds largely to the cost of the record, and who that knows Bihar can think that after all this is a real check? The record must be prepared under conditions which shall relieve it, so far as we can guarantee, from any suspicion of onesidedness; and to this end I have decided that mere zamindari servants shall, on no account, be employed in surveying and preparing the record of the raiyats' holdings. It will no doubt be urged that as the patwari registered under the Regulation is also under the zamindar's control to some extent, the objections to the employment of unregistered patwaris apply also to him. But it cannot be contended that the position of the Government is the same in regard to the registered as to the unregistered man. We hold a strong position in regard to the registered patwari; he is a Government servant; we can dismiss him and we can criminally prosecute him for making a false entry. We have no such hold as this over a private patwari, who is merely lent to us, and whom we do not pay. The position is explained in the following extract from a letter which I have caused to be addressed to an influential gentleman in Bihar, who has taken exception to my orders, directing the employment of registered patwaris alone, and, failing them, professional amins. The letter refers to an important opinion given by the Advocate-General as to the obligation the registered patwari is under, to survey his village by order of the Collector:—

"The Officiating Lieutenant-Governor has received your letter of the 9th instant, referring to the employment of patwaris on the Bihar Survey, and is glad that you have written to him on the subject.

"The matter stands thus. On going through the papers connected with the Bihar Settlement, and on hearing what influential gentlemen in Calcutta had to say regarding it, it appeared to Sir Antony MacDonnell that there were two aspects of the proceedings which needed special attention—(a) the expense, (b) the absence of an effective plan for maintaining the record when completed.

"The latter aspect of the question is now engaging His Honour's attention, and he trusts to have an opportunity of consulting you and Bihar zamindars generally on it when he visits Muzaffarpur next month. On the former aspect of the case, it seemed to His Honour eminently desirable that something should be done to reduce the cost of the survey. The cost of survey and 'khanapuri' is now very considerable, and the tendency is to further increase. On enquiry Sir Antony MacDonnell found that the survey was being chiefly carried on by amins (to whose employment objections have been raised apart from the matter of cost). The belief was entertained that the Collector could not legally require patwaris to measure their villages. To test the accuracy of that belief, which the Officiating Lieutenant-Governor personally doubted, the question was referred to the Law Officers of the Crown. The Advocate-General has now advised Government (and the Board of Revenue accepts the opinion) that patwaris can be required under the usual sanction to survey their villages as part of their statutory duties.

"But the patwaris over whom the Government can exercise this measure of legal control are the registered patwaris alone, that is to say, the patwaris whom the Collector, usually on the zamindar's nomination, recognises for each mahal or village. Over the unregistered patwaris, who are merely the private servants of the landlords, the Collector can exercise no control.

"You will, His Honour is sure, recognise that it is most undesirable that the survey should be made and the record prepared by a private servant of one party concerned, or by any one over whom the Settlement Officers have no adequate control.

"If Bihar zamindars and planters assist the Government in this matter, by registering their patwaris where none have yet been nominated and registered, and thus gratuitously procuring for them the requisite status, then the Lieutenant-Governor has no doubt that the cost of the survey and initial record operations will be very greatly reduced, while the efficiency of the patwari as a village servant will be immensely increased by the experience and training in survey he will gratuitously receive. By this means it is not impossible that the cost may be reduced under one-half the present figure. This would be an enormous

gain to landlords, tenants and all concerned. But if landlords and others do not help in this matter by coming forward and nominating their patwaris, so as to enable the survey authorities to work through registered patwaris, then, if the operations are to be successfully prosecuted, the Government has no resource left but to work through amins. (Of course the survey authorities will continue to work through amins until the registered patwaris are ready to take the amins' place.) In this alternative the objection based on the expensiveness of the survey, &c., will not lie at the door of the Government, but at the doors of those who, being under a legal obligation to nominate parwaris, abstain from doing this, and thereby impede the adoption of a procedure whereby the cost can be substantially reduced."

On this part of the subject, then, what we have to do is—

*For purposes of survey—*

- (a) To make out a list of the villages in which survey operations have begun or are contemplated.
- (b) To forward that list to the Collectors of the districts concerned, and ask them to take immediate steps under the Patwari Regulation to have patwaris registered for these villages. In the case of coparcenary villages, to which class most villages in Muzaffarpur are understood to belong, it may be necessary, as was observed by Sir Charles Elliott in the Resolution quoted above, to take action under section 5 of Regulation I of 1819.
- (c) To train the patwaris so registered, if they need training, to survey.
- (d) To employ the registered and trained patwaris in the survey and record operations instead of amins. Until the patwari is ready to take the professional amin's place, the latter must be kept on.

*For purposes of subsequent maintainance of the Record, if we must act under Regulation XII, 1817—*

- (e) To request the Board to direct that the recording establishments shall for each village carefully enter the nature and amount of all and every payment customarily made by (a) rent-payers, (b) rent-receivers to, or for the services of, patwaris.
- (f) To request the Board to prepare and submit a scheme for maintaining the record through the agency (i) of the registered patwari, and (ii) of such supervising staff of kanungos and Revenue officers as may be necessary. An estimate of the cost of this supervising establishment must be submitted at the same time. How it is to be provided will be a matter for subsequent consideration.
- (g) To request the Board to consider, in communication with the Law officers, whether, having regard to the terms of sections XVIII and XX of Regulation XII of 1817, the Government has the power (a) of determining what the patwaris' salary shall be; (b) of laying down by whom and in what proportions it shall be paid, and (c) of requiring the parties, who are directed to pay such salary, to deposit it in a Government treasury in the manner contemplated in Rule XXI of the Board's Rules regarding patwaris in Bihar (section XIV, Revenue Officers' Manual, 1888).
- (h) To request the Board generally to consider whether Regulation XII of 1817 is susceptible of any modifications (and if so what modifications) not inconsistent with its principles, whereby it may be made a more efficient instrument for maintaining the record of rights.

33. I now pass on to the consideration of the actual procedure of recording rights, and the cost of survey which is being incurred. With the method of survey I need not concern myself, though I shall later on make a few remarks regarding the subordinate agency and the establishment of permanent survey marks. The notifications that have hitherto been issued run as follows:—

"Under the powers conferred on him by section 101(1) of the Bengal Tenancy Act VIII of 1885, and with the previous sanction of the Governor-General in Council, the Lieutenant-Governor is pleased to order that a survey shall be made and a record of rights prepared in respect to all lands included within the external boundaries of pargana in the district of



The particulars to be recorded in the survey and record of rights shall be the following:—

The name of each proprietor, with the character and extent of his interests.

The situation, quantity, and boundaries of proprietors' private lands, as defined in Chapter XI of the Act.

The name of each tenant.

The class to which he belongs, that is to say, whether he is a tenure-holder, raiyat holding at fixed rates, occupancy raiyat, non-occupancy raiyat or under-raiyat, and if he is a tenure-holder, whether he is a permanent tenure-holder or not, and whether his rent is liable to enhancement during the continuance of his tenure.

The situation, quantity, and boundaries of the land held by him.

The name of his landlord.

The rent payable.

The mode in which that rent has been fixed, whether by contract, by order of a court, or otherwise.

If the rent is a gradually increasing rent, the time at which, and the steps by which, it increases.

The special conditions and incidents, if any, of the tenancy."

34. This form of notification seems to me to be appropriate, and it should be continued. It will be noticed that it requires merely a record of existing facts, not a settlement of rents; and herein it agrees with the views held by the Board of Revenue in 1884 and by Mr. Collin in 1887, as stated in paragraphs 7 and 16 above. If either landlord or tenant applies for a settlement of rent, then under section 104(2) of the Tenancy Act the Revenue Officer is bound to settle the rent, but he should not attempt to settle rents in any other case. It has been, I understand, contended by a gentleman in Bihar, whose opinion must always carry weight with me, that the initial words of section 104(2) impose on the Revenue officer the duty of settling rent of his own motion "when it appears that a tenant is holding land in excess of or less than that for which he is paying rent." But in the first place the Act does not afford any rule or criterion by which the Revenue officer is to be guided in determining the area for which rent has been previously paid, unless it can be said that section 52(2) of the Act affords such a rule. And secondly, the contention here referred to amounts to saying that the Revenue officer is bound to take judicial notice of the landlord's measurement papers, a proposition which is on the face of it inadmissible.\* It is clear, moreover, that this section deals with

\* On this point see the very important decision of the High Court, dated 30th May 1892. *Gourie Patro versus Manager, Burdwan Raj Estate.*

matters essentially for judicial decision, and I think therefore it will be prudent for Revenue officers not to attempt to settle rents, except on the application of either the landlord or the tenant.

I am very indisposed to adopt any course which may have the effect of enhancing, through Revenue officers, rents in Bihar, where, if the fullest enquiries are to be trusted, rents are often too high. I am anxious to leave this question of fixing fair rents to the civil courts, in which, carefully controlled as they are by the Hon'ble Judges of the High Court, I have confidence; but if the Settlement Officers are compelled by a judicial interpretation of section 104(2) of the Tenancy Act to consider *suo motu* the question of rent enhancement on the ground of excess area, then I shall probably apply to the Governor-General in Council for the general power under section 112 of the Act to reduce rents which are unfair and inequitable (a power not conferrable on the Civil Courts). Thus a settlement which shall not be one-sided, but fair to all parties concerned, may be made.

35. When the facts of the holdings, &c., have been recorded, an extract of the record (*parcha*) should invariably be furnished to each tenant. I attach the highest importance to this. It is essential that the tenant should be in a position to know, before attestation, what has been entered regarding his holding, in order that at attestation he may, if necessary, object to any wrong entry. It is essential that people should not be taken by surprise, but that they should have ample time to consider the proposed entries affecting them before they became final.

36.\* Attestation is, so far as the raiyat is concerned, the most important link in the chain, and I must insist on the entries of area, rental and status made in the record of rights being attested with special care by a Revenue officer of gazetted rank. I must absolutely prohibit attestation of such entries by muharrirs

or any subordinate officers whatever. A Sub-Deputy Collector is the lowest grade officer whom I would entrust with the duty, and the Sub-Deputies so entrusted should be picked men. If we are to make a record, no pains should be spared to make it an authentic statement of the facts. I should say that in an area where the disputes about existing rents and status are few, a competent officer should be able to attest the *khatians* for from 250 to 300 tenants in a working day.

37. The cost of the operations is at present high, and if we are not able to use registered patwaris for survey and khasra writing, I fear it will tend to increase. So far as I can gather at present, the—

	Rs.
Traverse survey costs ... ..	40 per sq. mile.
Cadastral survey and "khanapuri" (estimated)	170 "
Attestation, publication and settlement (estimated)	160 "
Total	370

The ways in which this cost can be reduced are (a) employment of patwaris instead of amins, on their customary and statutory duty of surveying, (b) invoking the voluntary assistance of the raiyats and others interested in the measurement of their own fields, (c) making no settlements of rents unless required to do so by landlord or tenant, (d) employing as few muharrirs as possible to write *parchas* and help in making the "khanapuri." The reduction of expenditure depends so much on attention to details that I can give no more precise indications as to sources of possible economies; but the expenditure is so much higher than I was accustomed to in the Central Provinces, that I have, with the permission of the Government of India and the consent of the Chief Commissioner of Central Provinces, decided to arrange for the deputation of the Officiating Commissioner of Settlements, Mr. Carey, and a selected Settlement Officer, to consult with Colonel Sandeman and Mr. Macpherson on the whole question of expenditure, which depends to a very great extent on a careful consideration of a multitude of details and their relative adjustments.

38. In the matter of survey marks, I would say that the fewer permanent marks we have the better. They are a great trouble and expense to examine and maintain. I would have no marks except on triple junction points, unless a flag raised at one such point cannot be seen from the next adjacent point. In that case, an intermediate mark is necessary. I understand Colonel Sandeman agrees to this.

39. In addition to prosecuting operations in the parganas in the Hajipur sub-division of Muzaffarpur and in the tappas of the Bettiah sub-division of Champaran already under survey, it is proposed next season to begin work in two areas of 500 square miles each in Muzaffarpur, in one area of similar extent in Saran, in one area of similar extent in Champaran, and in 500 square miles of the Tikari Ward's Estate in Gaya. The Saran area belongs to the Maharaja of Hutwa, and the Champaran area belongs in great part to the Bettiah Estate, managed by Mr. Gibbon. If the Maharaja of Hutwa and Mr. Gibbon give assistance, there ought to be no difficulty at all in registering patwaris in these areas and subsequently training them. The amins would then be got rid of and the expenses of survey probably reduced by one-half. In the Tikari Estate in Gaya, which is under the Court of Wards, there will be no difficulty. In other estates the rapid and smooth progress of operations cannot be so certainly counted on, the Bihar zamindars being, as I have said, jealous of the exercise by the Government of control over patwaris, and anxious that the latter should become zamindari servants absolutely. It is said that the Bihar patwari is wholly untrustworthy, and I myself have not painted him in very flattering colours. But the patwaris in other provinces were probably as bad before they were taken well in hand, and there have been cases in which the denunciations of even the Bihar patwari were due to his not being as pliant an instrument as the denouncer wished. At all events the patwari, be his character what it may, is at the present moment a power in Bihar: and if the zamindars refuse to meet us in some such way as that indicated in paragraph 27, it will

be for us to see, before throwing up the sponge, whether we cannot make him a power for good instead of for evil.

40. I have forwarded this Minute to the Board of Revenue for any remarks they might wish to offer: and I annex their observations on it. I am gratified to find that both Members are in complete accord with the opinions I have expressed.

A. P. MACDONNELL,  
*Officiating Lieutenant-Governor.*

DARJEELING,  
*The 24th June 1893.*

#### APPENDIX A.

*Outlines of Mr. Finucane's scheme referred to in paragraph 26 of the Minute for provision of establishment for maintenance of records of survey and record of rights and of village accounts.*

1. A Government servant to be appointed for each circle or number of villages containing an area with about sixteen thousand rupees rental, which in Bihar would cover about ten square miles.
2. This officer to be called munserim patwari, to receive a salary of from Rs. 15 to Rs. 20 a month, to possess the attainments of an amin or the like qualifications.
3. The duties of the munserim Government patwari would be—
  - (a) to receive from the zamindars at stated times a statement showing the changes to be made year by year in the survey records. This would practically be the khasra rewritten for plots in which any change in occupancy occurred;
  - (b) to receive from the zamindar a *jama-wasil-baki* or other account showing the realization from each raiyat year by year.
4. The zamindar would make his own arrangement for keeping his own and his raiyats' accounts, and would simply make over to the Government patwari copies of such accounts as may be prescribed for record and attestation.
5. The Government patwari on receipt of the zamindar's *jama-wasil-baki* would visit the villages of his circles, explain to the raiyats the amounts shown by the zamindar as realized, ask them if the amounts thus shown are correct. If the raiyat admits their correctness, the fact would be noted; if he denies their correctness, the Government patwari would make a note of the raiyat's allegation on the *jama-wasil-baki*, but would not attempt to decide which allegation, whether the raiyat's or zamindar's, is correct. The *jama-wasil-baki* would thus be a record of the contemporaneous allegations of both parties, and might be made admissible in evidence in suits between landlord and tenant as such and nothing more. Further, the munserim patwari would compare the amounts entered in the receipts held by the raiyats with the amounts shown by the zamindars as realized from them. If he found a discrepancy, he would content himself with explaining to the raiyat that he ought not to pay rent without obtaining a receipt, and with warning him that if he persists in being foolish enough to do so, he must put with the consequences.
6. As regards agricultural statistics, the Government patwaris need not trouble the zamindars at all. They would simply go on the land with the maps in their hands and make out for themselves any statistics of cultivated area or the like which may be required.
7. Over every ten of these munserim patwaris a kanungo at Rs. 50 to be appointed.
8. Over five kanungos, that is to say, over an area of about 500 square miles a Deputy Collector.
9. After these officers had been at work for a short time in this way, supervised and controlled as they would be by the kanungo and the Deputy Collector, it is to be reasonably supposed that raiyats would take care to obtain receipts for all payments made by them, and that after a short time they would not make any payment without first obtaining a receipt. There would then be no reason why the peripatetic Deputy Collector should not be vested with powers of a civil court, or even with summary powers for disposal of rent-suits. In this way a rent-suit would resolve itself into this: the rent payable by the raiyat is known from the settlement records. If a zamindar alleges an arrear to be due from a raiyat, the raiyat may be asked to produce his receipts to show he has paid the amount due of him: should he fail to do so, the Deputy Collector would give a decree.
10. The present staff of patwaris (or such of them as are not required for Government service) to be made zamindars' servants to be retained or dismissed at the pleasure of the zamindar.
11. A cess of half an anna in the rupee would meet the expenses of the requisite establishment; of this one-half should be paid by the zamindars, the other half by the raiyats, as the former would derive quite as much benefit from the successful working of the scheme as the latter.
12. The cess would only be realized and the Bill would only apply where a survey and record of rights has been made.
13. For other parts of the country, the zamindars may be made responsible for the supply of such information or agricultural statistics as Government may reasonably require and prescribe, but they could make their own arrangements for obtaining such informations.

No. <sup>1794</sup><sub>174</sub>, dated Simla, the 24th July 1893.

From—SIR E. C. BUCK, Kt., C.S.I., Secretary to the Government of India. Revenue and Agricultural Department,

To—The Secretary to the Government of Bengal, Revenue Department.

IN reply to your letter No. 748T.R., dated 6th July 1893, on the subject of providing for the maintenance of the land-record in Bihar by a cess, I am desirous to communicate the following remarks and instructions.

2. The minute recorded by His Honour the Officiating Lieutenant-Governor contains a clear history of the correspondence which has taken place in respect to the maintenance of the record. As indicated by Sir A. MacDonnell, the Government of India have persistently urged that arrangements must sooner or later be made for maintaining it, and the survey was only sanctioned on the understanding that action would be taken in this respect as soon as the scheme sketched in the final paragraph of Sir Charles Elliott's letter No. 883L.R. of 9th July 1891 had received detailed consideration.

3. Like Sir A. MacDonnell, the Government of India would have preferred that the method and means for maintaining the record should have been decided before the survey commenced; but in view of the consideration urged in their letter No. 2135 of the 18th September 1891, that the survey itself was a task which from its magnitude and importance was not likely to be successfully undertaken by a Lieutenant-Governor whose term of office was drawing to a close, they apprehended that if operations were deferred until a complete scheme for the maintenance of the record had been prepared and sanctioned, the entire project might be indefinitely postponed. It seemed possible, indeed, that if a beginning were not made in 1892, a further period of inaction would set in, ending perhaps in the abandonment of the whole undertaking.

4. As matters now stand, the Governor-General in Council is fully alive to the necessity of urgent action, and desires that his thanks may be conveyed to Sir A. MacDonnell for the energetic manner in which he has taken up the subject. I am to convey the assurances of the Government of India that they will give every support in their power to His Honour in any measures which may be shown to be really necessary for the accomplishment of an object which they have always urged to be an inevitable adjunct to the survey, and will, if funds can be provided in no other way, be prepared to recommend to Her Majesty's Secretary of State the imposition on the landholders of a cess within the limits indicated in Sir A. MacDonnell's minute.

5. His Excellency in Council is glad to observe that in some of its leading features Sir A. MacDonnell's scheme is in accordance with that sketched in Sir Charles Elliott's letter of 1891. In both schemes the inspection and correction of the record is to be effected by a special staff of kanungos or land inspectors; in both the circle of each inspector, or in other words, the unit of area, is to be 20 square miles; and in both the correction of the record is to be confined to the entry of facts and is in no way to deal with the collection or settlement of rents. The important point of difference is that in the scheme of 1891 the funds were to be raised by mutation fees, while it is now proposed that they be provided by a cess.

6. It seems probable that, as elsewhere in India, the amount which can be raised by fees for mutations will not, in any case, provide a sufficient amount to meet the cost of all establishments. But it would seem desirable that before finally determining the amount required to be raised by cess, steps should be taken to ascertain what funds can be realised by the system of compulsory mutation adopted in the revenue codes of other provinces, and whether any economies can be effected by the utilisation of the special staff for registering assurances. On these questions the Government of India will await your opinion.

**RULES RELATING TO THE DEHRA DUN FOREST SCHOOL.**

The following is published for general information.

By order of the Lieutenant-Governor of Bengal,

H. H. RISLEY,

*Secretary to the Govt. of Bengal.*

CALCUTTA;

REVENUE DEPT., FORESTS,

The 14th August 1893.

Circular No. 11-F.

*Extract from the Proceedings of the Government of India, in the Revenue and Agricultural Department, Forests, dated Simla, the 28th June 1893.*

READ—

- (i) Circular Resolution of this Department, No. 25-F., dated 13th October 1891, promulgating rules to regulate appointments and promotions in the Provincial Forest Service.
- (ii) Circular of this Department, No. 22-F., dated 25th July 1892, forwarding, for the consideration of Local Governments and Administrations, draft rules for the recruitment of the Provincial Forest Service.

Read also—

- (i) Replies from Local Governments and Administrations to the Circular of 25th July 1892.
- (ii) Letter from the Inspector-General of Forests, No. 379, dated 10th May 1893, submitting, for the consideration and orders of the Government of India, a copy of Resolution No. II passed by the Imperial Forest School Board of Control for 1893-94, containing draft rules to regulate the constitution of, admission to, and studies and discipline at, the Forest School.

**RESOLUTION.**

The draft rules prepared by the Board of Control have been considered by the Government of India in connection with the opinions expressed by Local Governments and Administrations in response to Circular No. 22-F., dated 25th July 1892, and after such revision as has been deemed necessary, are now issued, in the appendix to this Resolution, for adoption, with effect from 1st July 1893, in supersession of those promulgated with Circular No. 25-F., dated 13th October 1891.

2. With reference to Rule 12 (ix), the Government of India desire that Local Governments and Administrations will consider whether the maximum number of stipends to be granted in each year under that rule might not with advantage be notified, with the object of inducing competition for them by candidates at the entrance examination of the Forest School and of thus transforming them into actual scholarships.

**ORDER.**—Ordered that a copy of this Resolution, and of the new Rules referred to, be

Bengal.  
North-Western Provinces and Oudh.  
Punjab.  
Central Provinces.  
Burma.

Assam.  
Coorg,  
Ajmere.  
Andamans.  
Hyderabad.

forwarded for information and guidance to the Government of Madras, the Local Governments and Adminis-

rations noted in the margin, the Inspector-General of Forests, and the Comptroller and Auditor General.

Ordered also that a copy be forwarded to the Foreign Department for communication to the Agent to the Governor General in Baluchistan.

Ordered, further, that the Resolution, with its appendix, be published in the Supplement to the *Gazette of India*.

[True Extract.]

E. C. BUCK,

*Secretary to the Government of India.*

**APPENDIX.**

**RULES TO REGULATE THE CONSTITUTION OF, ADMISSION TO, AND STUDIES AND DISCIPLINE AT, THE IMPERIAL FOREST SCHOOL, DEHRA DUN.**

**Section I.—Constitution and Studies.**

1. The School is under the administrative control of the Inspector-General of Forests, who is assisted by a Board consisting of—

- 1. The Inspector-General of Forests, *President*.
- 2. The Director of Public Instruction, North-Western Provinces and Oudh;
- 3. The Director of the School;

One Conservator from each province (not more than three serving in any given year);  
with, as *Secretary*, the Assistant Inspector-General of Forests.

2. The Superior Staff of the School consists of—

1. The Director,
2. The Deputy Director,
- 3 & 4. Two Instructors,
5. The Vernacular Instructor,

} assisted by the Forest Officers of the School Circle, North-Western Provinces.

The Conservator of Forests, School Circle, North-Western Provinces, will ordinarily be Director of the School. The Deputy Director and two Instructors are officers of the Indian Forest Service on the Imperial List. The Vernacular Instructor is an officer of the Provincial Forest Service, also on the Imperial List.

3. The Director of the School is charged with (1) the general administration of the institution, including the regulation of the course of study under the arrangements prescribed by the Board of Control, subject to the sanction of the Government of India; (2) the supervision of the School buildings, quarters and gardens; (3) the control of the accounts, and the conduct of correspondence.

4. *Courses.*—There are two courses—one in English, the other in the Hindustani language. Each course lasts 21 months. The English course is that followed by the "Upper Class;" the Hindustani course that followed by the "Lower Class." The first year's students are called "Juniors," the second year's students "Seniors." In the English course students are prepared for the certificate in Forestry by the "Higher Standard;" in the Hindustani course for that by the "Lower Standard."

The subjects taught in these courses are the following, described in the School syllabuses:—

1. Forestry, including Sylviculture, Utilisation and Forest Working-Plans, both theoretical and practical.
  2. Mathematics—elementary Arithmetic, Algebra, Trigonometry, and Mechanics, in their application to forest questions.
  3. Physical Science, including Chemistry, Physics, Physiography, Geology, Mineralogy and Soils.
  4. Botany, both theoretical and practical, including the collection and preservation of plants.
  5. Zoology—the classification of animals and the study of useful and dangerous species, especially of insects, including the collection and preservation of specimens.
  6. Drawing, Surveying and Estimating, as required for forest officers.
  7. Forest Engineering, theoretical and practical.
  8. Forest Law, the elements of Criminal Law, and departmental organisation.
  9. Forest Accounts and Procedure.
5. *Terms.*—The terms of study are as follows:—
- |           |   |  |
|-----------|---|--|
| 1st year- | { | Rains term—July 1st to October 31st, in Dehra Dun.               |
|           |   | Winter term—November 1st to December 22nd, in camp.              |
|           |   | Vacation—December 23rd to January 5th.                           |
|           |   | Spring term—January 6th to March 31st, in camp.                  |
|           |   | Hill tour term—April 1st to May 31st, in camp.                   |
| 2nd year- | { | Vacation—June 1st to 30th.                                       |
|           |   | Rains term—July 1st to October 31st, in Dehra Dun.               |
|           |   | Winter term—November 1st to December 22nd, in camp.              |
|           |   | Vacation—December 23rd to January 5th.                           |
|           |   | Spring term—January 6th to February 15th, in camp.               |
|           |   | Examinations, including survey test—February 16th to March 31st. |

6. *Examinations.*—The School examinations are—

1. Monthly, to test progress and application.
2. Final.

The *Monthly Examinations* are usually held on the last two working days of each month as the Director may order. The marks obtained at these examinations are counted for one-fourth of the aggregate at the Final.

The *Final Examinations* are held in March of the second year, and the marks then obtained count for three-fourths of the aggregate.

7. *Certificates.*—There are two certificates obtainable in each class after the final examinations: a "pass" certificate and a "honours" certificate. The former is granted to students who obtain over 50 per cent. of the aggregate marks allotted to all subjects, provided this includes 50 per cent. of the marks allowed for each of the subjects of Forestry, Botany, Surveying, and Engineering. The latter is granted to students who obtain over 75 per cent. of the aggregate marks allotted to all subjects, including over 50 per cent. in each individual subject. These certificates are only granted on the orders of the Board of Control, who have authority to exercise their discretion in doubtful cases.

8. *Prizes.*—The School medals are awarded by order of the Board of Control, but only if "honour" marks (75 per cent.) have been obtained. Other prizes, whether given by Government or other donors, are also awarded by the Board of Control.

9. Should any student of the three categories enumerated in Rule 11 be unable (a) to appear at the final examinations, or, having appeared, (b) fail to pass those examinations, he will not be permitted to appear at any subsequent final examination, unless he follows a second time the whole course of instruction at the School, or, at the discretion of the Director, the second year's course.

**Section II.—Admission Rules.**

10. The total number of students of each class who can be admitted into the School each year will be limited to such number as the Board of Control may decide, from time to time, can be accommodated in the School. The number of studentships to be allotted each year to the respective Provinces, as well as the number of nominations to be made by the Director, will, with due regard to the total prescribed by the Board of Control, be decided by the Director of the School before the 1st of January, after consultation with the Provincial authorities as to their requirements, and communicated to the Local Governments concerned.

*A.—Upper Class.*

11. There are three categories of students in the Upper Class—

- (1) Private Students.
- (2) Students already in the Government service.
- (3) Students deputed by Native States.

12. *Private Students* comprise all those students who are at present without appointments in any Forest Service, and whose object it is, by becoming possessors of Forest School certificates, to obtain employment, either in the Forest Service of the Government of India, or in that of a Native State or some other owner of forest property.

- (i) Candidates for admission to the Forest School as private students must not be less than 18 or more than 25 years of age, and their applications must be sent to a Conservator of Forests\* through a Divisional Forest Officer of rank not below that of an Assistant Conservator of the 1st grade, or through a Collector or other district officer. Neither the Conservator, the Divisional Forest Officer, nor the Collector need belong to the forest circle or province in which the candidate seeks employment; but Divisional Forest Officers and Col-
- |   |  |
|---|--|
| <p>Conservator of Forests, Bengal Circle, at Darjeeling.<br/> Conservator of Forests, Assam Circle, at Shillong.<br/> Conservators of Forests, North-Western Provinces and Oudh—<br/> School Circle, at Dhera Dun.<br/> Central Circle, at Naini Tal.<br/> Oudh Circle, at Naini Tal.<br/> Conservators of Forests, Central Provinces—<br/> Southern Circle, at Nagpur.<br/> Northern Circle, at Jabalpur.<br/> Conservator of Forests, Berar Circle, at Amraoti.<br/> Conservator of Forests, Punjab Circle, at Lahore.<br/> Conservators of Forests, Upper Burma—<br/> Eastern Circle, at Mandalay.<br/> Western Circle, at Mandalay.<br/> Conservators of Forests, Lower Burma—<br/> Pegu Circle, at Rangoon.<br/> Tenasserim Circle, at Moulmein.<br/> Conservators of Forests, Madras Presidency—<br/> Northern Circle, at Bezwada.<br/> Central Circle, at Madras.<br/> Southern Circle, at Coimbatore.</p> | <p>to a Conservator of Forests* through a Divisional Forest Officer of rank not below that of an Assistant Conservator of the 1st grade, or through a Collector or other district officer. Neither the Conservator, the Divisional Forest Officer, nor the Collector need belong to the forest circle or province in which the candidate seeks employment; but Divisional Forest Officers and Col-</p> |
|---|--|

lectors may not forward to Conservators applications unsupported by the five certificates enumerated below, namely—

- (a) A certificate that the candidate is a "Native of India" within the meaning† assigned to those words by section 6 of 33 Vict., Cap. 3.
- (b) A certificate of age.
- (c) A health certificate in the form prescribed by article 61 of the Civil Service Regulations, signed by the Civil Surgeon of the district in which the said Divisional Forest Officer's or Collector's duties lie, and testifying to the candidate's sound constitution, good vision and hearing, and general physical fitness for a rough out-door life in the Forest Department.
- (d) A certificate of respectability and good moral character from two or more persons, whose social or official position can be accepted as a guarantee of reliability.
- (e) A certificate from an officer of the Educational Department, of a rank not less than that of a Deputy-Inspector of Schools or the Head-master of a High School under public management, to the effect that the candidate's education appears sufficiently good to give hopes of his being able to pass the entrance examination.

The last three certificates must bear date not further back than the 1st October of the year preceding that in which the candidate proposes to present himself at the entrance examination.

If any person giving certificates as above under (c), (d) and (e) is in a position to mention anything more to the credit of the candidate than the certificates actually call for, he may do so.

- (ii) Upon the receipt by the Conservator of any application in respect to which the preceding conditions shall have been observed, that officer may either accept or reject the application, without assigning any reason for so doing; or he may require the candidate to produce other or better certificates in person before him.

\* 'Native of India' means any person born and domiciled within the dominions of Her Majesty in India, or within the territories of Indian Princes tributary to or in alliance with Her Majesty, of parents habitually resident in India, and not established there for temporary purposes only. (Article 45, Civil Service Regulations.)



- : Minima  
pass marks.

(xii) The appointment to the service of Government of passed private students depends on the existence of vacancies in the various circles, and even a stipendiary student has no claim to such appointment.



**RULES RELATING TO THE DEHRA DUN FOREST SCHOOL.**

The following is published for general information.

By order of the Lieutenant-Governor of Bengal,

H. H. RISLEY,

*Secretary to the Govt. of Bengal.*

CALCUTTA;  
REVENUE DEPT., FORESTS,  
The 14th August 1893.

Circular No. 11-F.

*Extract from the Proceedings of the Government of India, in the Revenue and Agricultural Department, Forests, dated Simla, the 28th June 1893.*

READ—

- (i) Circular Resolution of this Department, No. 25-F., dated 13th October 1891, promulgating rules to regulate appointments and promotions in the Provincial Forest Service.
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**RESOLUTION.**

The draft rules prepared by the Board of Control have been considered by the Government of India in connection with the opinions expressed by Local Governments and Administrations in response to Circular No. 22-F., dated 25th July 1892, and after such revision as has been deemed necessary, are now issued, in the appendix to this Resolution, for adoption, with effect from 1st July 1893, in supersession of those promulgated with Circular No. 25-F., dated 13th October 1891.

2. With reference to Rule 12 (ix), the Government of India desire that Local Governments and Administrations will consider whether the maximum number of stipends to be granted in each year under that rule might not with advantage be notified, with the object of inducing competition for them by candidates at the entrance examination of the Forest School and of thus transforming them into actual scholarships.

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Punjab.  
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Assam.  
Coorg,  
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Andamans.  
Hyderabad.

forwarded for information  
and guidance to the Govern-  
ment of Madras, the Local  
Governments and Adminis-

rations noted in the margin, the Inspector-General of Forests, and the Comptroller and Auditor General.

Ordered also that a copy be forwarded to the Foreign Department for communication to the Agent to the Governor General in Baluchistan.

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[True Extract.]

E. C. BUCK,

*Secretary to the Government of India.*

**APPENDIX.**

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- 3. The Director of the School ;

4. One Conservator from each province (not more than three serving in any given year);  
with, as *Secretary*, the Assistant Inspector-General of Forests.
2. The Superior Staff of the School consists of—
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} assisted by the Forest Officers of the School Circle, North-Western Provinces.

The Conservator of Forests, School Circle, North-Western Provinces, will ordinarily be Director of the School. The Deputy Director and two Instructors are officers of the Indian Forest Service on the Imperial List. The Vernacular Instructor is an officer of the Provincial Forest Service, also on the Imperial List.

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4. *Courses*.—There are two courses—one in English, the other in the Hindustani language. Each course lasts 21 months. The English course is that followed by the "Upper Class;" the Hindustani course that followed by the "Lower Class." The first year's students are called "Juniors," the second year's students "Seniors." In the English course students are prepared for the certificate in Forestry by the "Higher Standard;" in the Hindustani course for that by the "Lower Standard."

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7. *Certificates*.—There are two certificates obtainable in each class after the final examinations: a "pass" certificate and a "honours" certificate. The former is granted to students who obtain over 50 per cent. of the aggregate marks allotted to all subjects, provided this includes 50 per cent. of the marks allowed for each of the subjects of Forestry, Botany, Surveying, and Engineering. The latter is granted to students who obtain over 75 per cent. of the aggregate marks allotted to all subjects, including over 50 per cent. in each individual subject. These certificates are only granted on the orders of the Board of Control, who have authority to exercise their discretion in doubtful cases.

8. *Prizes*.—The School medals are awarded by order of the Board of Control, but only if "honour" marks (75 per cent.) have been obtained. Other prizes, whether given by Government or other donors, are also awarded by the Board of Control.

9. Should any student of the three categories enumerated in Rule 11 be unable (a) to appear at the final examinations, or, having appeared, (b) fail to pass those examinations, he will not be permitted to appear at any subsequent final examination, unless he follows a second time the whole course of instruction at the School, or, at the discretion of the Director, the second year's course.

### Section II.—Admission Rules.

10. The total number of students of each class who can be admitted into the School each year will be limited to such number as the Board of Control may decide, from time to time, can be accommodated in the School. The number of studentships to be allotted each year to the respective Provinces, as well as the number of nominations to be made by the Director, will, with due regard to the total prescribed by the Board of Control, be decided by the Director of the School before the 1st of January, after consultation with the Provincial authorities as to their requirements, and communicated to the Local Governments concerned.

#### A.—Upper Class.

11. There are three categories of students in the Upper Class—

- (1) Private Students.
- (2) Students already in the Government service.
- (3) Students deputed by Native States.

12. *Private Students* comprise all those students who are at present without appointments in any Forest Service, and whose object it is, by becoming possessors of Forest School certificates, to obtain employment, either in the Forest Service of the Government of India, or in that of a Native State or some other owner of forest property.

(i) Candidates for admission to the Forest School as private students must not be less than 18 or more than 25

\* Conservator of Forests, Bengal Circle, at Darjeeling.

Conservator of Forests, Assam Circle, at Shillong.

Conservators of Forests, North-Western Provinces and

Oudh—

School Circle, at Dhera Dun.

Central Circle, at Naini Tal.

Oudh Circle, at Naini Tal.

Conservators of Forests, Central Provinces—

Southern Circle, at Nagpur.

Northern Circle, at Jabalpur.

Conservator of Forests, Berar Circle, at Amraoti.

Conservator of Forests, Punjab Circle, at Lahore.

Conservators of Forests, Upper Burma—

Eastern Circle, at Mandalay.

Western Circle, at Mandalay.

Conservators of Forests, Lower Burma—

Pegu Circle, at Rangoon.

Tenasserim Circle, at Moulmein.

Conservators of Forests, Madras Presidency—

Northern Circle, at Bellary.

Central Circle, at Madras.

Southern Circle, at Coimbatore.

years of age, and their applications must be sent to a Conservator of Forests\* through a Divisional Forest Officer of rank not below that of an Assistant Conservator of the 1st grade, or through a Collector or other district officer. Neither the Conservator, the Divisional Forest Officer, nor the Collector need belong to the forest circle or province in which the candidate seeks employment; but Divisional Forest Officers and Col-

lectors may not forward to Conservators applications unsupported by the five certificates enumerated below, namely—

- (a) A certificate that the candidate is a "Native of India" within the meaning assigned to those words by section 6 of 33 Vict., Cap. 3.
- (b) A certificate of age.
- (c) A health certificate in the form prescribed by article 61 of the Civil Service Regulations, signed by the Civil Surgeon of the district in which the said Divisional Forest Officer's or Collector's duties lie, and testifying to the candidate's sound constitution, good vision and hearing, and general physical fitness for a rough out-door life in the Forest Department.
- (d) A certificate of respectability and good moral character from two or more persons, whose social or official position can be accepted as a guarantee of reliability.
- (e) A certificate from an officer of the Educational Department, of a rank not less than that of a Deputy-Inspector of Schools or the Head-master of a High School under public management, to the effect that the candidate's education appears sufficiently good to give hopes of his being able to pass the entrance examination.

The last three certificates must bear date not further back than the 1st October of the year preceding that in which the candidate proposes to present himself at the entrance examination.

If any person giving certificates as above under (c), (d) and (e) is in a position to mention anything more to the credit of the candidate than the certificates actually call for, he may do so.

- (ii) Upon the receipt by the Conservator of any application in respect to which the preceding conditions shall have been observed, that officer may either accept or reject the application, without assigning any reason for so doing; or he may require the candidate to produce other or better certificates in person before him.

\* Native of India means any person born and domiciled within the dominions of Her Majesty in India, or within the territories of Indian Princes tributary to or in alliance with Her Majesty, or parents habitually resident in India, and not established there for temporary purposes only. (Article 45, Civil Service Regulations.)

- (iii) Conservators may, at their option, test the fitness of a candidate who desires to enter the service of Government by practical work in the forests.
- (iv) Those candidates who have been approved by the Conservator will be permitted, under his recommendation, to appear at the next entrance examination for the Forest School held in his circle.
- (v) The *Entrance Examination* is held early in March each year, on such date as may be fixed by the Director, both at the Imperial Forest School and at such centres as may be fixed from time to time by Local Governments, and under such officers—Educational, Revenue, Forest or other—as may be appointed: provided that the date shall be communicated by the Director to Local Governments and Conservators on or before 1st January. The subjects of examination are—

				Minima pass marks.
1. English	Conversation	...	...	50 per cent.
	Composition	...	...	33 "
2. Arithmetic	...	...	...	40 "
3. Algebra, up to and including quadratic equations	...	...	...	40 "
4. Elements of Euclid, Books I to IV and Book VI	...	...	...	25 "
5. Mensuration—lengths, areas and volumes, with examples	...	...	...	25 "

The examination papers on the above subjects will be forwarded by the Director, in sealed covers, to such officials as the Local Governments may direct, in the month preceding the examination.

- (vi) A local Government may lay down rules under which the number of candidates allotted under Rule 10 to the Province for admission into the school shall be selected from the number of passed candidates. In such rules due regard must be had to the place taken in the examination, but the Local Government shall not be debarred from preferring, for good and sufficient reasons, a passed candidate who may have taken a lower place in the list to one higher on the list; provided that the Director may, after inspection of the papers of the selected candidates, place before the Local Government an objection to the admission of any of such candidates on the ground that he is below the required standard.
- (vii) The Local Government may, if it thinks fit, exempt from the entrance examination any candidate who is a Bachelor of Arts, or who has obtained a degree or diploma of about the same standard, at any University in India or in the United Kingdom or in a British Colony, or at any educational institution to which the Government of India may extend the privilege: provided that such degree or diploma shall not give such candidate a preferential claim over any candidates who have passed the entrance examination, and who may appear more eligible for the Forest Service.
- (viii) Prior to the admission of a student, his parents or guardians must satisfy the Director that they are willing and able to defray the expenses of the student at the School. These expenses are estimated to be not less than Rs. 735 for each student living in native fashion, and Rs. 945 in the case of those living in European fashion (*vide* Rule 21). Of these sums, parents or guardians must deposit with the Director, before the course commences, a sum of Rs. 126 in the case of native students, and Rs. 168 in the case of European students, to meet the initial cost of uniform, books, instruments, stationery and camp-equipage (*vide* Rule 18), and in addition Rs. 50 as caution-money.
- (ix) Local Governments may, on the recommendation of a Conservator or of the Director, and in exceptional cases, allow selected private students who have passed the entrance examination a monthly stipend not exceeding Rs. 50, to assist them through the School course; provided that such selected private students previously execute an agreement binding themselves to serve the Local Government concerned (in the event of their obtaining the school certificate) for a period of not less than five years (*vide* Rule 17). Such monthly stipend may, in case of misconduct or unsatisfactory progress at the School, be reduced or altogether withdrawn at the discretion of the Director.
- (x) The names of those private students who succeed in obtaining the School certificate will be entered by the Director in a register to be kept for that purpose, and the Conservators of those circles, in which the non-stipendiary private students may severally desire or be willing to serve, will be addressed by him with the view of obtaining appointments for such students. The Conservators concerned will for this purpose be furnished with the original certificates already referred to in clause (i) of this rule, the School certificates and such other useful information, more especially regarding the physical qualifications of the students, as the Director may be in a position to furnish.
- (xi) A list of private students, who may not succeed in obtaining appointments, will be forwarded by the Director to the Inspector-General of Forests, who will circulate the list amongst Durbars, Conservators, and other persons likely to be in need of the services of trained forest officials.
- (xii) The appointment to the service of Government of passed private students depends on the existence of vacancies in the various circles, and even a stipendiary student has no claim to such appointment.

13. *Candidates in the Government Service*, who may be deputed to the School, will ordinarily be either—

- (a) members of the Provincial Service (Forest Rangers) who desire to qualify themselves for further promotion in their own or to a higher class; or
- (b) members of the Subordinate Service (Foresters and other subordinate officials) similarly desirous of qualifying for promotion.
- (i) Forest Rangers may be deputed by Local Governments, provided the candidates are certified by the Conservator under whom they are serving to possess sufficient knowledge of English and general education and ability to enable them to profit by the course. Such officers may be above 25 years of age, and need not pass the entrance examination. While at the School they will draw the pay of their grade, and the travelling allowances to which they may be entitled under the Civil Service Regulations.
- (ii) Officers of the Subordinate Service may be deputed by Local Governments, provided that—
  - (a) they have been in that service for not less than three years;
  - (b) they have passed the School entrance examination;
  - (c) they are under 25 years of age;
  - (d) they have executed the formal agreement referred to in Rule 17.

Such officers will, while at the School, draw the pay and travelling allowances of their grade in the service; provided that the total amount sanctioned to meet the cost of their training, inclusive of travelling expenses, shall not be less than Rs. 735 in the case of students living in the native style, and Rs. 945 in the case of students living in European fashion (*vide* Rule 21).

14. *Students deputed by Native States* may be admitted on the request of the State concerned; provided that—

- (a) they have passed the entrance examination of the School;
- (b) they have produced the certificates required for admission, specified in Rule 12 (i).

The Durbars of Native States sending students to the School shall, before the beginning of each term, or of each year if preferred, deposit with the Director a sum sufficient to meet the expenses of the students. This sum, for the whole course, must not be less than Rs. 735 for students living in native fashion, and Rs. 945 for those living in European fashion (*vide* Rule 21).

#### B.—Lower Class.

15. There are also three categories of students in the Lower Class—

- (a) Private students.
- (b) Students in Government service.
- (c) Students deputed by Native States.

The rules for admission to the Lower Class are the same as those detailed in Rules 12, 13, and 14 for admission to the Upper Class, with the following exceptions:—

- (i) Instead of the Entrance Examination, the candidate must furnish a certificate of having passed the Middle Class Examination in the North-Western Provinces and Oudh, or an equivalent standard in another province, as well as a certificate that he possesses a competent knowledge of Hindustani.
- (ii) The cost of training will not be less than Rs. 588 (*vide* Rule 21) for the whole course of 21 months.
- (iii) The required deposit will be Rs. 84, and the caution-money Rs. 25.

#### C.—General.

16. No student of European or Eurasian extraction, not already in the permanent employment of Government or of a Native State, shall be admitted into the Forest School if he is married; nor shall any such student, whether in the permanent employment of Government or of a Native State or not, marry whilst at the School or until he has joined a permanent appointment. A breach of this rule will render the student liable to dismissal from the School, or to forfeiture of any appointment in the Forest Service which may have been promised to him, or to which he may otherwise have a claim.

17. *Agreement and Security Bond.*—Officers of the Subordinate Service, deputed to the School by Local Governments under Rules 13 (ii) and 15, shall execute a formal agreement—the sureties for the fulfilment of which should be men of position and means—to continue in the Forest Service of the Local Government concerned for a period of not less than five years after passing out of the Forest School, and on such rates of pay as may be in accordance with the existing organisation of the Department. A breach of this condition will render the defaulter and his sureties liable for the refund of the entire cost of the student's education at the School. The agreement and security bond shall be in the appended forms, and must be executed before the student is admitted to the School. The agreement will be signed by the student and, if he is a minor, by his father or guardian also; the bond by the student and two sureties. The amount of security to be taken will be—

				Rs.
For a Lower Class student	...	...	...	600
„ an Upper Class student	{ Native	...	...	750
	{ European	...	...	1,000

The agreement and security bond need not be stamped.

The same rule shall apply to private students who may be granted stipends under Rule 12 (ix), subject, however, to the proviso of Rule 12 (xi). Should any such student not be appointed to the Forest Service of Government at the end of his School course, his agreement and security bond will be returned to him.

18. *Uniform, book, and camp allowances.*—The Director is authorised to make deductions from the pay of Forest Ranger students under Rule 13 (i), or of students of the Subordinate Service under Rules 13 (ii) and 15, or from the stipends of private students under Rules 12 (ix) and 15, to the following amounts :—

		Rs.		Rs.
Lower Class students	...	4	monthly, or	84 in all
Upper Class students	{ Native	6	" "	126 "
	{ European	8	" "	168 "

in order to meet the following items of initial expenditure, viz.:—

			UPPER CLASS.		Lower Class.
			Native.	European.	
			Rs.	Rs.	Rs.
Uniform and equipment	...	...	20	50	20
Books and instruments	...	...	60	60	24
Camp outfit	...	...	46	58	40
Total	...	...	126	168	84

The Director will charge off in his accounts such portions of the above as may be necessary from time to time to meet expenditure on the items mentioned, until the whole of the amounts are exhausted, after which the student will be required to pay in cash for articles supplied.

19. *Travelling allowances of private students in receipt of stipends.*—Students holding stipends from Local Governments under Rule 12 (ix) are not entitled to travelling allowance; but as the tours entail greater expenditure in some months than in others, the Director is authorised to make a further monthly deduction from their stipends of Rs. 5 from Upper Class Native students and Rs. 7 from Upper Class Europeans students, and to disburse the amounts in the following manner :—

		Native students.	European students.
		Rs.	Rs.
Monthly travelling allowances	{ November-May, 1st year.	4	8
	{ November-March, 2nd year.		
Or for 12 months	...	48	96
Special additional allowance for Hill tour	...	22	16
" " for Punjab tour	...	35	35
Total	...	105	147

20. Should the Conservator of a Circle from which any Government student of the Subordinate Service is deputed to the School, under Rule 13 (ii), prefer it, he can, subject to the orders of his Government, authorise the Director to pay travelling allowance to such student at the rates given in Rule 19, instead of at the rates allowed by the Civil Service Regulations. And in the case of Lower Class Government students, deputed to the School under Rule 15, he may similarly authorise the payment of travelling allowance at the following rates, instead of the rates permissible under the Civil Service Regulations :—

		Rs.
Monthly travelling allowance at Rs. 4	...	48
Special hill tour allowance	...	16
" Punjab tour allowance	...	20
Total	...	84

which rates are equivalent to a permanent travelling allowance of Rs. 4 per month for the whole course.

21. *Estimated expense of training.*—It has been calculated that, in addition to the amounts specified in Rule 18 for cost of uniform, books, &c., and camp equipment, and in Rules 19 and 20 for travelling, the minimum monthly subsistence money for students comes to Rs. 20, 24, and 30, respectively; so that the minimum pay and travelling allowances of Government students under Rule 13 (ii), and the minimum stipends for stipendiary students under Rule 12 (ix), should not be less than Rs. 35 and Rs. 45, respectively, nor should the minimum pay and travelling allowances of Lower Class students (Rule 15) be less than Rs. 28. Thus, the minimum cost of training will be as follows:—

	Lower Class.	UPPER CLASS.	
		Native.	European.
	Rs.	Rs.	Rs.
Subsistence money ... ..	20	24	30
Uniform, books, and camp outfit ... ..	4	6	8
Travelling allowance ... ..	4	5	7
Total per mensem ... ..	28	35	45
Or for the 21 months of the course ... ..	588	735	945

The same amounts should be taken as minima in calculating the allowances to be deposited on account of students from Native States under Rules 14 and 15, or provided by parents and guardians for the cost of training of private students.

### Section III.—Disciplinary Rules.

22. *Quarters.*—The Director will allot to students, on their arrival in Dehra, such quarters as may be available in the School buildings or in the houses rented by him for students' accommodation. The School quarters are tenable during the whole period of the students' course, and the rent is Rs. 2 monthly for each student, or Rs. 4 for each room. Students for whom there is no accommodation in quarters or in houses rented by the Director, or who may prefer it, can, with the permission of the Director, reside in the town in lodgings selected by themselves; but in that case the Director will accept no responsibility for the rent.

All students, living in quarters or in the rented houses, are expected to abide by such orders as the Director may issue from time to time for the purpose of ensuring cleanliness and sanitation.

No dogs are allowed in quarters, nor may dogs or horses be brought inside the School grounds.

Breakages of furniture, etc., in the quarters or School buildings must be paid for by the students. Students are responsible for the acts of their servants.

23. *Uniform.*—All students must wear the School uniform, which consists of a suit of khaki drill with white-metal buttons, and a grey turban of prescribed pattern, for the hot weather, and of khaki serge with similar buttons for the cold weather and camp. Those students who become members of the Dehra Dun Mounted Rifles are, however, permitted to wear the undress uniform of the corps, which also consists of a suit of khaki drill, of pattern similar to that of the School. Students who are Volunteers will wear, as head-dress, a brown shikar hat while at the School, and the regular corps helmet when on parade. Native students may dispense with turbans, or wear other head-dress, only with the Director's special permission. Uniform must always be worn inside the School building. It must also be worn in the School grounds up to 5 p.m.

24. *Uniform and Camp Equipment.*—The uniform of members of the Dehra Dun Mounted Rifles may be obtained through the corps staff; that of other students through the Storekeeper of the School, on the Director's order. As camp equipment each student requires—

- (1) A small tent, not larger than 10 feet × 8 feet.
- (2) A camp bed.
- (3) A small camp table.
- (4) A camp chair or "morah."

Those articles are made at the School and issued at cost price to students.

25. *Books and Instruments.*—The list of books and instruments required by each student will be published by the Director from time to time. The articles must be purchased from the Director, who endeavours to obtain them of the best quality procurable, consistent with cheapness. No article will, however, be issued by the Storekeeper, except (a) on order of the Director, or (b) on cash payment.

Copies of the Forest Acts and Forest Code, as also surveying instruments and herbarium presses, are issued on loan, and students using them will be responsible for their safe custody and return.

26. *Leave.*—During the course of instruction, no student may leave Dehra without the written order of the Director. Nor may students, while in camp, leave the camp head-

27. *Holidays*.—During the rains term, Saturday will usually be observed as a holiday or devoted to excursions. In camp, it will ordinarily be a half-holiday. Such of the usual gazetted holidays as are allowed will be notified as such from time to time.

- (1) Reprimand by the teacher in class.
- (2) Reprimand by the Director or the Deputy Director at any time.
- (3) Reprimand before a meeting, convened by the Director, of not less than three School officers, one of whom must be either the Director or the Deputy Director. The proceedings of the meeting will be reported to the Conservator or the Native State deputing the student, or to his parents or guardians if he is a private student; and, if the meeting so decides, a note of them will be made on his final certificate.
- (4) The Director, acting with the consensus of the meeting referred to under (3), has power to inflict, in addition, a fine to the extent of one-third of the salary or allowances of the student for a period not exceeding three months.
- (5) The Director, acting with the consensus of a full meeting of the School officers presided over by himself, has power to dismiss any student for misconduct; and a student thus dismissed cannot be re-admitted to the School. The Director may remand any student who, in his opinion, is not sufficiently promising.

ARTICLES OF AGREEMENT made and entered into this 18 day of BETWEEN



as an officer of the said Forest Department at and after the rate of not less than Rs.                      per month and the said                      shall be entitled to all the rights and privileges in respect of pay pension and promotion accorded to officers of the said Department for the time by the Rules and Regulations of the Department.

5. Lastly it is hereby agreed and declared that the Secretary of State his successors in office or assigns shall be at liberty to rescind this agreement on account of the negligence failure to attend to duty idleness or any insubordination or misconduct on the part of the said and to dismiss him from the said Forest School or the service of the said Department and the said shall not be entitled to any of the privileges hereby imposed on him but the said or shall thereupon refund to the Secretary of State his successors in office and assigns the total cost including the monthly payments made to the said while at the said School incurred by the Secretary of State or his successors in office or assigns in respect of the education of the said at the said School. IN WITNESS whereof the said parties to these presents have hereunto set their respective hands and seals the day and year first above written.

KNOW ALL MEN by these presents that we  
of  
(principal obligor)  
of  
and  
(sureties) are jointly and severally bound to the SECRETARY OF STATE FOR INDIA IN COUNCIL in the sum of Rs. to be paid to the said Secretary of State his successors in office or assigns or his or their certain attorney or attorneys for which payment well and truly to be made we bind ourselves our heirs executors administrators and representatives and each of us binds himself his heirs executors administrators and representatives firmly by these presents sealed with our seals and dated this day of 18 .

WHEREAS the Secretary of State for India in Council for himself and his successors in office and assigns has engaged to educate the said at the Dehra Dun Forest School in all matters relating to forest science forest works and forest administration that it may be deemed necessary by the Director of the said School to teach the said and has also agreed to pay him during the whole period of his stay at the said School at and after the rate of rupees per month and whereas the cost per annum of such education without any such allowance being included is estimated to be Rs. which shall be taken to be the actual cost for the purpose of these presents and whereas in consideration of such education and pay to be given to the said as aforesaid by the said Secretary of State and his successors in office and assigns the said has agreed with the said Secretary of State his successors in office and assigns that he will after completing his studies at the said School and if required to do so serve in the Forest Department of the Government of British India for a period of not less than five years during the whole of which time he will diligently and efficiently do all acts and discharge all duties which may be required of him to be done in his capacity as an officer of the said Department. AND WHEREAS the said Secretary of State has also on his part agreed that the said shall be paid for such service at and after the rate of not less than rupees per month and shall be entitled to all the rights and privileges in respect of pay pension and promotion accorded to officers of the said Department for the time being by the Rules and Regulations of the Department. AND WHEREAS for the purpose of securing and indemnifying the said Secretary of State his successors in office and assigns against all loss and damage which he or they might or may in any way suffer by reason of the said leaving without permission the service of the said Secretary of State his successors in office or assigns in less than five years after the completion of his studies at the said School and for the purpose also of securing the refund to the said Secretary of State his successors in office and assigns of the total cost including the monthly payments made to the said while at the said School incurred by the said Secretary of State or his successors in office or assigns in respect of the education of the said at the said School and in consideration of the payment and education so as aforesaid to be made and given to the said at the said School and as one of the conditions of the admission of the said to the said School it has also been agreed that the said and the said and as his sureties should execute the above-written Bond subject to the condition hereinafter contained. Now the condition of the above-written Bond or obligation is such that if the said shall well and faithfully and diligently pursue his studies at the said School and qualify for the said Forest Service and shall also after completing his studies at the said Forest School and if so required to do serve the said Secretary of State his successors in office and assigns in the Forest Department of the Government of British India or of any Local Government for a period of not less than five years and shall during the whole of such period diligently and efficiently do all acts and discharge all duties which may be required to be done by him in his capacity as an officer of the said Department and if the said and or either of them their or either of their heirs executors administrators and representatives shall well and truly indemnify the said Secretary of State his successors in office and assigns against all loss and

damage which he or they might or may in any way suffer by reason of the said giving cause for dismissal either while at the said school or while in the service of Government thereafter or of his leaving the service of the said Secretary of State his successors in office or assigns without permission in less than five years after the completion of the studies of the said at the said school and if the said and or either of them their or either of their heirs executors administrators or representatives shall also pay to the said Secretary of State his successors in office or assigns all sum or sums in any way expended paid or incurred by the said Secretary of State his successors in office or assigns in respect of the education of the said at the said school then the above-written bond or obligation shall be void otherwise the same shall remain in full force and virtue. PROVIDED ALWAYS and it is hereby expressly agreed and declared that these presents shall be treated and considered as entered into under the orders of the Government of India for the performance by the said and and of a public duty and an act in which the public are interested within the meaning of section 74 of Act IX of 1872 of the Legislative Council of India.

IN WITNESS, &c.

*Notification by the Government of India, Finance and Commerce Department, No. 4760 S.R., dated Calcutta, the 29th November 1892.*

IN exercise of the powers conferred by section 8 of the Indian Stamp Act (I of 1879), the Governor-General in Council is pleased to remit the duties payable on the agreements and security-bonds required to be executed, under the rules to regulate appointments and promotions in the Provincial Forest Service, by students and their sureties previous to entry into the Forest School, Dehra Dun.

INTERNATIONAL EXHIBITION OF ARTS AND MANUFACTURE TO BE  
HELD AT ANTWERP IN 1894.

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The following is published for general information.

By order of the Lieutenant-Governor of Bengal, .

H. H. RISLEY,

*Secy. to the Govt. of Bengal.*

REVENUE DEPT.,  
The 15th August 1893.

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No. 2634.  
51.

*Extract from the Proceedings of the Government of India in the Revenue and Agricultural Department (Museums and Exhibitions),—dated Simla, the 4th August 1893.*

READ—

Letter dated 21st June 1893 from the Consul-General for Belgium, Bombay, intimating that an International Exhibition will be held at Antwerp between the months of May and November 1894, and inviting the co-operation of the Government of India.

RESOLUTION.

THE Consul-General has been informed that the Governor-General in Council regrets that financial considerations prevent any extensive contributions being furnished by the Government of India itself. Arrangements will, however, be made by the Reporter on Economic Products to contribute a collection of products either likely to be useful to Indo-Belgian trade or calculated to attract Belgian capital to India. A small grant of money will be allowed for the freight of this collection and of such articles as may be provided by private exhibitors and approved by the Reporter on Economic Products. The Inspector-General of Forests has also been instructed to arrange for a collection of forest products and timbers which are likely to find a demand on the Continent. As regards the representation of artware, one of the leading dealers in Indian art manufactures has been informed that if he is prepared to exhibit a collection of such manufactures the space required at the Exhibition will be provided at the cost of Government.

Mr. E. Thurston, Officiating Reporter on Economic Products, has been placed in charge of arrangements so far as the participation by the Government of India in the Exhibition is concerned. But the general conduct of arrangements for representation of Indian exhibitors will be undertaken by the Consul-General, Bombay, and by the Indian Consular Agents for Belgium at Calcutta, Bombay, Madras, Karachi and Rangoon, and intending exhibitors should apply to them for any information which they may require.

ORDER.—Ordered that the Resolution be published in the Supplement to the *Gazette of India* for general information, and that copies be forwarded to all Local Governments and Administrations with a request that the above information regarding the Exhibition may be notified in the local Gazettes.

[True Extract.]

E. D. MACLAGAN,

*Under-Secy. to the Govt. of India.*

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 12th August 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL.</b>			
BURDWAN DIV.	1 Burdwan Aug. 12, '93	2.69	Ordinary monsoon weather. Transplantation nearly over. <i>Aus</i> and sugarcane doing well. Prices of common rice :— <div style="text-align: right;">Srs.</div> <div style="display: flex; justify-content: flex-end;"> <div style="text-align: left;">Burdwan ... .. 10 to 12</div> <div style="text-align: left;">Kalna ... .. 9 to 12½</div> <div style="text-align: left;">Katwa ... .. 11½</div> <div style="text-align: left;">Raniganj ... .. 13</div> </div>
	Kalna ...	3.31	
	Katwa ...	1.24	
	Raniganj ...	1.64	
	2 Bankura „ 12, '93	2.85	Weather—seasonable. Transplantation of <i>aman</i> rice still going on in places. <i>Aus</i> plants coming on well. Common rice selling at— <div style="text-align: right;">Srs.</div> <div style="display: flex; justify-content: flex-end;"> <div style="text-align: left;">Bankura ... .. 13½</div> <div style="text-align: left;">Vishnupur ... .. 12</div> </div>
	Vishnupur ...	0.67	
	3 Birbhum „ 12, '93	1.27	Weather—seasonable. State and prospects of paddy seedlings, which have now been transplanted, are excellent, but sunshine is required for their healthy growth. Price of common rice 11 to 14½ seers per rupee.
	Rampur Hât ...	1.36	
	4 Midnapore „ 12, '93	2.31	Weather—cloudy. There has been more or less rain all over the district. Cyclone in Contai. Prospects of crops good except in parts of Patashpur and Bhagabampur where the land is submerged under water. Indigo and sugarcane doing well. Transplantation of <i>hainanti</i> crops going on. No want of water and fodder. No cattle-disease. Prices of common rice :— <div style="text-align: right;">Srs.</div> <div style="display: flex; justify-content: flex-end;"> <div style="text-align: left;">Sadar ... .. 11</div> <div style="text-align: left;">Contai ... .. 12½</div> <div style="text-align: left;">Tamluk ... .. 10 to 11</div> <div style="text-align: left;">Ghatal ... .. 10</div> </div>
	5 Hooghly „ 12, '93	2.76	
	Serampore ...	4.03	
	Jahannabad ...	1.11	
	6 Howrah „ 12, '93	1.85	Weather—seasonable. Transplantation of <i>aman</i> paddy continues. Sugarcane, jute and paddy doing pretty well. Condition of cattle good. No cattle-disease. Fodder and water-supply sufficient. Price of rice 10 seers per rupee.
	Ulubaria ...	1.48	
	7 24 Parganas „ 12, '93	2.17	Weather—seasonable. Transplantation of <i>aman</i> going on except in the tracts under water. <i>Aus</i> and jute injured by excess of rain. Prospects of crops not favourable in the south of the district, but fair elsewhere. Prices of common rice :— <div style="text-align: right;">Srs.</div> <div style="display: flex; justify-content: flex-end;"> <div style="text-align: left;">Sadar ... .. 10 to 10½</div> <div style="text-align: left;">Diamond Harbour ... .. 11</div> <div style="text-align: left;">Barasat ... .. 10</div> <div style="text-align: left;">Basirhat ... .. 10</div> </div>
	8 Nadia „ 12, '93	3.26	
	Kushtia ...	3.28	
	Meherpur ...	2.20	
PRESIDENCY DIV.	9 Khulna „ 12, '93	2.26	Weather—hot with heavy showers. Prospects of crops fair. Transplantation of <i>aman</i> rice continues. Harvest of early rice proceeds. Prices stationary.
	Chaudanga ...	1.27	
	Ranaghat ...	8.65	
	Bagerhat ...	8.54	
	Satkhira ...	7.19	
	10 Jessore „ 12, '93	3.57	Weather—cloudy with very heavy rain about the middle of the week. Transplantation of <i>aman</i> going on. Both <i>aus</i> and <i>aman</i> in Khulna thana in Sadar and in many parts of Satkhira and Bagerhat badly damaged by the heavy rain and the sudden rise of the rivers. If the water does not subside soon there will be serious loss. Jute badly damaged in Bagerhat. Coarse rice selling at 9 or 10 seers per rupee. Fodder sufficient.
	Jhenida ...	3.20	
	Magura ...	1.45	
	Narail ...	5.08	
	Bangaon ...	3.32	
	11 Mureshnabad „ 12, '93	3.17	Weather—seasonable. Transplantation of <i>aman</i> nearly finished. Harvesting of <i>bhudo</i> continues. State of jute, mulberry and sugarcane appears to be good. Fodder sufficient for cattle. Coarse rice sells at 11 seers per rupee.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL—consolid.</b>			
CHITTAGONG DIV.	12 Chittagong Aug. 12, '93	8.30	Weather—seasonable. <i>Aus</i> being still harvested and <i>aman</i> transplanted. Prospects not good. In some places in the Sadar sub-division the standing crops have been damaged by insects, and in Garjonia in the Cox's Bazar sub-division an insect called <i>chuna poka</i> is reported to have made appearance. Prices rising. Condition of cattle generally good. Supply of fodder sufficient.
	13 Noakhali „ 12, '93	11.16	Almost continuous rain with occasional break. State and prospects of crops not good. Cattle-disease abating. Fodder not available in sufficient quantities. Common rice selling at 10 seers per rupee.
	14 Tippera „ 12, '93	8.36	Constant rain throughout the week; no sunshine at all. If the floods in the north of the district rise no higher <i>aman</i> will do well: <i>aus</i> is a poor crop, and in several small tracts has been totally destroyed by rapid rise and strong current of floods. Rice selling at 10 seers per rupee.
	15 Chittagong Hill Tracts. „ 11, '93	5.31	Weather—cloudy and rainy. Paddy plants in <i>jam</i> are forming ear in some places. <i>Aus</i> paddy in low lands progressing. Price of common rice 10 seers per rupee. No cattle-disease reported.
Dacca Div.	16 Dacca „ 12, '93	Figures not furnished	Weather—cloudy and rainy with high wind. Harvesting of <i>aus</i> and jute going on. These crops have been partially damaged by the floods. If the floods do not subside soon and if the wind continues higher the <i>aman</i> crop is likely to be damaged. Common rice selling at 8 to 10 seers per rupee. Fodder available. No cattle-disease.
	17 Faridpur „ 12, '93	5.55	Weather—seasonable. <i>Aus</i> is being cut and jute-steeping going on. Rivers rising, and the condition of the <i>aman</i> on high lands is still hopeful. The
	Gomundo „	3.56	<i>aman</i> on low lands much damaged by rain. Common rice sells from 10 to 12 seers per rupee. Condition of cattle good generally, but cattle-disease continues in thaus Palang and Shibchar in Madaripur.
	Madaripur „	4.42	
	18 Bakergunge „ 12, '93	5.50	Weather—seasonable. State and prospects of crops not promising. The standing crops have been damaged in places by the flood and heavy rain. Common rice is being sold from 8 to 10 seers per rupee. Fodder and water sufficient.
RAJBHARI DIV.	Pirojpur „	...	
	Patuakhali „	...	
	Bhola „	...	
	19 Mymensingh „ 12, '93	7.93	Weather—rainy throughout the week. <i>Aus</i> and jute are being reaped. Considerable damage has been caused to these crops by heavy rain, and the outturn is not expected to be more than 10 annas. Transplantation of <i>aman</i> going on, but is impeded by heavy rain. Common rice selling at 9 to 10 seers per rupee. Condition of cattle good. Supply of fodder sufficient except in Badla station.
	20 Dinapur „ 12, '93	7.83	Weather—wet and rainy. Standing crops doing well. No more rain wanted at present. Transplantation of <i>kaimanti</i> still going on. Jute being cut and steeped. Price of rice at Sadar 13½ seers per rupee; that at Thakurgaon unchanged. Cattle in good condition. Fodder and drinking water sufficient.
	Thakurgaon „	5.84	
	21 Rajshahi „ 12, '93	4.48	Weather—seasonable and rainy. The general condition of the crops is reported to be good, but we are still having more rain than we want. There is no cattle-disease. Fodder and water-supply ample. Price of rice varies from 10 to 13 seers per rupee.
	Nator „	2.67	
	Nanguon „	0.74	
	22 Rangpur „ 12, '93	8.18	Heavy rain during the week. The rain came opportunely after a long break. Transplantation of <i>aman</i> going on. Common rice 11 to 13 seers per rupee.
	Kurigaon „	7.26	
	Gaibanda „	1.91	
	Nilphamari „	5.99	
	23 Bogra „ 12, '93	2.49	Heavy rain in the latter part of the week. Transplantation of <i>aman</i> goes on. Cutting of jute has commenced; probable outturn estimated at 12 annas. Common rice sells at 12 seers per rupee. Fodder and water sufficient.
	Sherpur „	3.85	
	Naukhila „	3.89	
	24 Pabna „ 12, '93	5.92	Weather—cloudy and rainy. Raining every day. <i>Aus</i> and jute are being cut. Common rice sells at 10½ seers per rupee at Pabna and Rs. 3-14 to Rs. 4-2 per maund at Sirajganj. Fodder and water-supply sufficient.
	25 Darjeeling „ 12, '93	14.58	Weather—rainy. In the hills:—Indian-corn, <i>kangni</i> , <i>shama</i> , potatoes and <i>phaphur</i> being harvested. <i>Bhadol</i> ripening. <i>Aghani</i> paddy and <i>bara marua</i> progressing favourably. <i>Chota marua</i> flowering. In the Terai:—Harvesting of <i>bhadol</i> going on. Transplanting of <i>kaimanti</i> continues. Jute doing well. Prices of coarse rice:—
	Siliguri „	3.83	
			Srs. Hills ... .. 9½ Terai ... .. 10½ per rupee.
	26 Jalpaiguri „ 12, '93	14.11	Weather—rainy. Harvesting of <i>bhadol</i> continues. Transplantation of <i>kaimanti</i> still going on. Prospects of jute good. Common rice sells at 11 seers per rupee. Fodder and water sufficient. No cattle-disease reported.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR.</b>			
<b>BRAGALPUR DIV.</b>	27 Moughyr Aug. 12, '93	4.35	Weather—cloudy with frequent showers. <i>Bhadoi</i> crops on the low lands are damaged to a certain extent; high land crops are doing well. Transplantation of <i>aghani</i> is being vigorously pushed on. Indigo and sugarcane doing well. Fodder and water plentiful. Small-pox among cattle towards Nawadi, Sheikhpora and Bukhtiarpur. Prices of common rice:— Srs. Sadar ... .. 11 to 13½ } per rupee. Begusarai ... .. 13 Jamui ... .. 12
	Begusarai ...	2.78	
	Jamui ...	3.29	
	28 Bhagalpur „ 12, '93	4.09	The <i>marua</i> and <i>makai</i> crops will yield about 8 annas. Indigo 14 annas. Transplantation in progress. Prospects of <i>bhadoi</i> and winter rice good. Price of common rice 13 seers 14 chitaks per rupee.
	Bauka ...	1.46	
	Madhipura ...	2.75	
	Supaul ...	4.49	
	29 Purnea „ 12, '93	3.83	Weather—hot at the beginning of the week, but rainy towards the end. It has become cooler. <i>Bhadoi</i> doing well in most parts and being cut in Kishanganj. Transplantation of <i>aghani</i> progressing. The heavy rainfall in the subdivisions has done much good. Jute doing well in Sadar and Arraria. It is being steeped in Kishanganj, where new jute is being exported. No cattle-disease. Fodder and water sufficient. Prices of common rice:— Srs. Sadar ... .. 10 to 14 } per rupee. Kishanganj ... .. 13 Arraria ... .. 16
	Kishanganj ...	6.35	
	Arraria ...	7.25	
	30 Malda „ 12, '93	5.76	Weather—first part of the week fair; latterly hot and cloudy with frequent heavy showers. Harvesting of <i>bhadoi</i> paddy continues; estimated outturn not less than 16 annas. Transplanting of winter paddy not yet finished. Coarse rice selling at from 11 to 16 seers per rupee. No want of fodder or drinking water.
<b>PATNA DIVISION.</b>	31 Sontbal Parganas „ 12, '93	5.46	Weather—sunshine at intervals and many heavy showers. Prospects of Indian-corn very poor—probably from 4 to 8 annas. Paddy nearly all transplanted. Prospects good. <i>Bhadoi</i> paddy being cut. Prices unchanged. Fodder plentiful.
	Deoghur ...	1.17	
	Godda ...	1.37	
	Jamtara ...	2.22	Weather—cloudy and rainy. There has been heavy rain during the latter part of the week, which is sufficient for the transplantation of paddy now in full progress. It is, however, not favourable for <i>bhadoi</i> crops on low lands, <i>Cheena</i> is being harvested. Prices of common rice:— Srs. Sadar ... .. 15 } per rupee. Barh ... .. 12 or 12½ Bihar ... .. 15 Dinapore ... .. 13
	Pakur ...	3.5	
	Rajmahal ...	1.22	
	32 Patna „ 12, '93	4.05	Weather—seasonable. Paddy transplantation going on. Harvesting of <i>marua</i> commenced in places. Prices stationary. Fodder and water-supply sufficient.
	Barh ...	3.80	
	Bihar ...	2.46	
	Dinapore ...	2.57	Weather—cloudy skies with westerly winds and frequent heavy showers. <i>Bhadoi</i> has been damaged in some localities by excessive rain. A break is now wanted. Young <i>khari</i> is looking splendid.
	Gaya „ 12, '93	2.86	
	Jahanabad ...	1.31	
	Aurangabad ...	0.99	Weather—rainy almost throughout the week. Prospects of <i>bhadoi</i> unfavourably affected by continued heavy showers. Rivers also are in floods, and much damage is apprehended to <i>makai</i> and other <i>bhadoi</i> crops on low lying lands. Paddy is also being washed away in places. Fine weather is very much needed everywhere. Prices remain stationary.
	Nawada ...	3.4	
	34 Shahabad „ 12, '93	4.71	Weather—somewhat rainy. <i>Bhadoi</i> generally damaged by excessive rain. Floods in Sitamarhi and Sadar and Katra and Paru thanas have destroyed much <i>makai</i> . Paddy on low lands in Sitamarhi washed away, but will be retransplanted. Fodder and water sufficient. No disease among cattle.
	Buxar ...	3.62	
	Bhabhua ...	4.15	
	Sasaram ...	4.04	Weather—rainy almost throughout the week. Prospects of <i>bhadoi</i> unfavourably affected by continued heavy showers. Rivers also are in floods, and much damage is apprehended to <i>makai</i> and other <i>bhadoi</i> crops on low lying lands. Paddy is also being washed away in places. Fine weather is very much needed everywhere. Prices remain stationary.
	35 Darbhanga „ 12, '93	7.57	
	Samastipur ...	3.22	
	Madhubani ...	1.61	Weather—somewhat rainy. <i>Bhadoi</i> generally damaged by excessive rain. Floods in Sitamarhi and Sadar and Katra and Paru thanas have destroyed much <i>makai</i> . Paddy on low lands in Sitamarhi washed away, but will be retransplanted. Fodder and water sufficient. No disease among cattle.
	36 Muzaffarpur „ 12, '93	6.33	
	Hajipur ...	3.10	
	Sitamarhi ...	2.90	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
BIHAR—consolid.			
PATNA DIVISION—consolid.	37 Saran Aug. 12, '93	3.38	Weather—fair during the first two days of the week; showery since Monday (5th). Maize crop much improved by the break in the rains. What areas had not been transplanted with paddy have now been transplanted with the favourable rain now falling. The Gogra is rising and supplying water to higher paddy lands. Prospects on the whole which were fair have improved. Fodder and water sufficient. Prices of common rice:— Srs. Chupra ... .. 18 } per rupee. Siwan ... .. 18 Gopalganj ... .. 18
	Siwan ...	2.39	
	Gopalganj ...	2.66	
	88 Champaran „ 12, '93	8.18	
Heavy rain every day, and latterly almost incessant though less heavy rain. Transplantation of paddy is generally in abeyance in consequence of incessant rain. <i>Makai</i> damaged by flood. No cattle-disease. Fodder and water sufficient. Prices stationary.			
ORISSA.			
ORISSA DIVN.	39 Cuttack „ 12, '93	3.70	Weather—cloudy with occasional heavy showers. <i>Beali</i> in ear. <i>Sarad</i> being transplanted. Supply of fodder sufficient. Price of common rice almost unchanged.  Weather—stormy with frequent showers. Sufficient rain has fallen all over the district. Agricultural operations are in good progress. <i>Beali</i> is in ear. Miscellaneous crops doing well. Prices of common rice:— Srs. c. Srs. o. Sadar ... .. 12 8 to 17 5 } per rupee. Khurda ... .. 11 0 to 17 1
	40 Puri „ 10, '93	4.20	
	Khurda ...	3.20	
	Banpur ...	1.47	
41 Balasore „ 12, '93	5.78		
Weather—cloudy with showers. Winter rice 12-anna crop expected. Transplantation still going on. The winter crop will be very late. More rain required. In Bhadrak <i>beali</i> 15-anna crop expected. Prices of common rice stationary:— Srs. Balasore ... .. 13 } per rupee. Bhadrak ... .. 15			
CHOTA NAGPUR.			
South-West Frontier Agency.			
CHOTA NAGPUR DIVN.	42 Hazaribagh Aug. 12, '93	3.69	Weather—cloudy with frequent showers. Paddy and <i>marua</i> transplanted. <i>Goondli</i> being harvested. Excessive rain damaged <i>bhadoi</i> crops. Prospect of paddy fair at present. Prices stationary.
	43 Lohardaga „ 12, '93	4.90	
	44 Palamau „ 11, '93	2.96	
	45 Singhbhum „ 12, '93	3.53	
Weather—seasonable. There has been a good deal of sunshine this week which will do great good. The condition of the crops is good everywhere. Cattle-disease on a small scale reported from Kolhan. Prices of common rice stationary.			
46 Manbhum „ 12, '93	4.33	Weather—stormy and damp with occasional sunshine. Rice crop doing well. Indian-corn coming into market. Outturn will be meagre. Prices of rice 10 to 12 seers per rupee. Fodder and water sufficient.	
Gobindpur ...	2.60		

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 15th August, 1893.H. H. RISLEY,  
Secy. to the Govt. of Bengal.

Meteorological Report of the Province of

METEOROLOGICAL DIVISION	DISTRICT.	Representative stations.	STATION OBSERVATIONS.														
			AIR PRESSURE.					WIND.		TEMPERATURE.						HUMIDITY.	
			Highest, 8 A.M., barometer reading.	Lowest, 8 A.M., barometer reading.	Mean, 8 A.M., reduced to 32°.	Mean reduced to sea-level and constant gravity, Lat. 45°.	Variation from normal mean.	Mean direction at 8 A.M.	Mean velocity in miles daily.	Highest of month.	Lowest of month.	Mean daily maximum temperature.	Mean daily minimum temperature.	Mean daily temperature.	Variation from normal mean.	Mean, 8 A.M., humidity.	Variation from normal mean.
ORISSA.	Puri	Puri	29.743	29.510	29.631	29.786	—	S78°W	218	90.7	77.6	89.7	80.6	85.2	—	84	—
		Gopalpur	29.741	29.507	29.631	29.782	+0.03	S54°W	202	90.2	75.8	87.8	78.0	82.9	—0.1	86	—
		False Point	29.753	29.485	29.623	29.791	+0.06	S59°W	274	92.0	71.6	87.0	78.5	83.1	+0.1	85	—3
	Outtack	Outtack	29.605	29.427	29.554	29.776	+0.03	S07°W	71	95.2	74.8	90.4	75.3	84.4	+0.2	77	—4
	Balasore	Balasore	29.694	29.454	29.567	29.809	+0.06	S33°W	141	92.4	73.8	89.3	78.0	83.2	+0.2	90	—
SOUTH-WEST BENGAL.	Midnapore	Midnapore	29.598	29.306	29.457	29.781	+0.03	S28°W	81	93.3	74.1	89.7	77.8	83.8	0	86	—
	24 Parganas	Calcutta	29.739	29.506	29.610	29.777	+0.01	S22°W	86	90.6	75.7	86.9	78.4	82.7	—0.6	89	+2
		Saugor Island	29.733	29.485	29.610	29.779	+0.01	S10°W	370	90.2	77.0	87.3	80.2	83.3	—0.3	89	—1
	Howrah	Howrah															
	Hooghly	Hooghly															
NORTH BENGAL.	Nadia	Krishnagar	29.604	29.402	29.575	29.770	+0.08	S6°E	125	93.3	75.7	88.5	78.5	83.5	—0.4	86	—
	Khulna	Khulna															
	Jessore	Jessore	29.725	29.516	29.606	29.785	+0.00	S17°E	92	92.0	74.4	88.4	78.7	83.0	—0.7	90	—1
	Burdwan	Burdwan	29.647	29.451	29.532	29.777	+0.02	S27°E	79	92.6	76.2	88.8	79.4	84.1	—0.8	86	+1
		Raniganj	29.410	29.222	29.290	29.575	+0.08	S16°W	59	94.7	73.9	90.1	77.2	83.7	—0.4	90	—
EAST BENGAL.	Bankura	Bankura	29.421	29.233	29.307	29.553	+0.03	S13°W	63	94.1	75.6	89.5	78.1	83.8	—0.1	88	—
	Birbhum	Birbhum															
	Murshidabad	Berhampore	29.676	29.478	29.553	29.763	+0.02	S13°E	98	91.7	76.3	87.5	79.0	83.3	—0.6	95	+3
	Pabna	Sirajganj	29.707	29.503	29.590	29.780	+0.02	S11°E	94	89.1	74.7	89.0	77.7	81.8	—1.6	94	—
	Hogra	Hogra	29.685	29.400	29.564	29.774	+0.01	S50°E	87	90.2	74.2	87.6	76.7	82.2	—1.4	91	—
NORTH BENGAL.	Rajshahi	Rampur Boalm	29.681	29.472	29.550	29.760	+0.06	S7°W	163	90.0	74.6	87.4	77.2	82.3	—1.4	90	—
	Malda	Malda	29.653	29.460	29.629	29.761	—	S30°E	71*	93.3	76.5	88.4	78.39	83.3	—	91	—
	Dinajpur	Dinajpur	29.637	29.435	29.502	29.777	+0.19	S30°E	59	91.6	75.2	87.6	78.3	83.0	—1.3	91	—
	Rangpur	Rangpur	29.632	29.426	29.512	29.760	+0.07	S33°E	65	89.8	74.7	86.5	77.2	81.9	—2.2	91	—
	Jalpaiguri	Jalpaiguri	29.494	29.263	29.363	29.599	+0.07	S38°E	62	89.0	73.6	86.5	76.1	81.3	—1.4	92	—
SOUTH BENGAL.	Kuch Bihar	Kuch Bihar															
	Darjeeling	Darjeeling	29.950	29.803	29.773	—	—0.09	S45°W	108	93.6	84.1	84.7	86.7	89.7	—1.1	98	+4
	Sikkim	Gnatoug	19.051	18.962	18.990	—	—	S16°W	*133	90.9	83.1	84.6	87.8	89.3	—0.7	92	—
	Chittagong	Chittagong	29.734	29.513	29.621	29.755	+0.00	S15°E	130	88.7	73.1	84.6	75.9	80.3	—0.7	91	+3
	Chittagong Hill Tracts	Demagiri															
NORTH BENGAL.	Backergunge	Barisal	29.709	29.542	29.643	29.761	+0.02	S5°E	116	91.3	74.9	86.2	77.7	82.0	+0.2	89	—
	Noakhali	Noakhali	29.758	29.533	29.654	29.762	+0.05	S17°E	177	87.5	74.8	84.1	77.1	80.6	—0.8	91	—
	Faridpur	Faridpur	29.751	29.529	29.618	29.761	+0.04	S1°E	137	88.5	74.9	86.3	78.8	82.5	—0.3	90	—
	Dacca	Dacca	29.746	29.531	29.623	29.763	+0.02	S2°E	225	90.1	75.2	87.6	79.2	83.4	—0.5	90	+1
	Tippera	Comilla	29.705	29.544	29.641	29.764	+0.03	S62°E	170	89.4	74.8	85.8	76.6	81.3	—0.6	95	—
SOUTH BENGAL.	Mymensingh	Mymensingh	29.705	29.511	29.593	29.764	+0.03	S33°E	125	89.2	74.6	84.9	77.0	81.0	—1.0	93	—
	Purnea	Purnea	29.610	29.403	29.481	29.759	+0.11	S14°W	29	92.2	74.2	87.7	78.3	83.0	—1.0	91	+3
	Bhagalpur	Bhagalpur	29.599	29.366	29.483	29.758	+0.05	S36°E	35	93.7	74.5	88.7	77.7	83.3	—1.2	88	—
	Darbhanga	Darbhanga	29.580	29.362	29.430*	29.758	+0.15	S89°E	104	89.9	76.2	87.3	78.6	83.0	—1.5	90	+6
	Muzaffarpur	Muzaffarpur	29.537	29.354	29.430	29.761	—	S69°E	101	90.7	76.2	87.6	78.2	82.9	—	92	—
NORTH BENGAL.	Champaran	Motihari	29.478	29.294	29.370	29.750	+0.20	N76°E	108	92.2	74.7	88.6	76.8	82.8	—1.6	89	—
	Saran	Chapra	29.515	29.336	29.417	29.750	+0.01	S18°E	98	94.8	74.6	88.7	78.8	83.8	—1.4	89	—
	Shahabad	Denri	29.326	29.180	29.243*	29.745	+0.27	S33°W	63†	93.8	74.0	87.9	78.3	83.1	—0.2	86	—
		Huzar	29.463	29.245	29.360	29.752	+0.04	S33°W	104	92.5	74.5	87.9	77.9	82.9	—1.3	89	—
		Arrah	29.503	29.338	29.396	29.753	+0.03	S60°W	46	94.4	74.5	89.6	79.1	84.4	—0.5	88	—
SOUTH BENGAL.	Gaya	Gaya	29.320	29.164	29.219	29.745	+0.10	S72°W	131*	95.0	75.8	90.2	78.2	84.2	—0.8	80	+9
	Patna	Bankipore	29.516	29.347	29.409	29.742	+0.08	S63°E	101	93.5	75.2	88.0	79.1	83.5	—1.7	87	+5
	Monghyr	Monghyr															
	South Bihar Parganas	Naya Dunke	29.223	29.043	29.119	29.555	+0.00	S31°E	71	91.6	72.8	87.7	77.2	82.5	—0.7	88	—
	Hazaribagh	Hazaribagh	27.727	27.571	27.680	29.587	+0.05	N81°W	182	89.2	76.5	84.2	72.7	78.4	—0.7	87	+1
CHOTA NAGPUR.	Lohardaga	Ranchi	27.612	27.441	27.560	29.554	+0.02	S77°W	156	89.0	69.4	84.1	71.7	77.9	—0.3	87†	—
	Palamanu	Palamanu															
	Singbhum	Chalukuma	28.905	28.764	28.852	29.555	+0.04	S62°W	283	83.9	74.2	89.3	78.6	83.0	—0.1	87	—
	Manbhum	Manbhum															
	Sibsagar	Sibsagar	29.473	29.251	29.344	29.635	+0.11	S48°W	37	93.1	74.5	88.6	77.2	82.9	—1.6	96	+2
ASSAM.	Goalpara	Goalpara	29.655	29.429	29.628	29.597	+0.22	S49°E	95	88.3	73.8	84.4	76.7	80.6	—2.7	93	+5
	Chachar	Silchar	29.705	29.503	29.603	29.647	+0.00	S	42	90.5	73.8	89.6	79.5	81.6	—2.1	85	+7

\* Mean of 30 days.

† Mean of 24 days.

‡ Mean of 22 days.

§ Mean of 20 days.



**Bengal for the month of July 1893.**

CLOUD.			DISTRICT OBSERVATIONS.										DISTRICT.
Mean cloud amount, 8 A. M.	Variation from normal mean, 8 A. M.	Rainfall.	RAINFALL.										
			Of month.					Since 10th May 1893. *					
			Mean of district.	Normal mean.	Variation from mean.	Number of rainy days.	Normal mean number of rainy days.	Mean of district.	Normal mean.	Variation.	Mean number of rainy days.	Normal mean number of rainy days.	
5.8	—	8.58	8.37	11.99	—3.62	11.50	14.51	31.17	23.32	+8.85	25.00	26.04	Puri.
8.0	—0.4	8.36											
7.8	—1.5	8.86											
6.1	—	8.48		12.31			14.84		23.90			28.04	Outback.
4.5	—	13.19		13.01			16.23		23.90			18.86	Salasore.
4.9	—	8.18	8.42	13.32	—4.90	12.25	15.24	35.10	24.73	+13.37	32.25	29.25	Midnapore.
9.4	—0.3	10.97	11.40	18.19	—1.79	15.43	17.63	40.58	25.93	+14.65	34.96	33.91	24 Parganas.
9.5	+1.3	16.88											
		9.56	13.03	—3.47	15.00	18.51	41.74	24.78	+16.98	33.00	34.08	Howrah.	
		10.18	12.45	—2.27	13.33	16.88	38.15	34.23	+14.93	33.66	38.71	Hooghly.	
8.8	—	7.78	11.65	10.94	+1.41	17.00	15.44	39.04	23.33	+16.31	38.60	31.88	Nadia.
			13.66	+0.65	18.67	18.86	43.69	29.03	+14.66	42.34	38.20	Khulna.	
8.7	—0.5	8.09	8.24	10.19	—1.98	18.40	15.67	32.24	25.23	+7.01	39.50	33.51	Jessore.
9.4	+0.9	15.17	11.94	11.36	+0.58	13.75	15.35	35.47	22.58	+12.95	22.50	29.94	Burdwan.
3.3	—	9.03											
8.1	—	10.24	10.81	13.20	—2.49	16.75	17.61	39.06	25.64	+13.42	38.00	33.49	Bankura.
			14.11	12.67	+1.44	19.00	17.10	32.99	25.37	+7.62	39.34	22.10	Birbhum.
9.4	+0.2	12.51	13.28	10.88	+2.40	20.00	15.09	38.94	23.09	+15.85	43.07	31.39	Murshidabad.
9.8	—	20.23	17.08	10.57	+0.51	20.00	15.08	47.13	28.42	+21.71	44.30	33.14	Pabna.
7.3	—	14.14	14.18	12.75	+1.43	21.00	15.05	36.67	30.08	+6.64	42.75	33.35	Sogra.
7.6	—	11.28	15.19	11.50	+3.00	16.33	18.99	40.80	28.28	+14.38	37.66	31.91	Rajshahi.
6.3	—	16.43	15.46	11.99	+3.47	24.00	16.13	33.09	26.63	+5.47	48.00	30.79	Malda.
9.4	—	14.97	19.05	12.13	+6.92	23.30	18.51	39.63	29.96	+9.77	46.30	33.38	Dinajpur. *
3.3	—	18.92	27.04	13.99	+13.05	22.25	15.44	51.30	42.38	+8.92	46.00	37.13	Rangpur.
8.4	—	37.88	38.36	26.66	+12.70	27.00	19.35	57.97	61.32	—5.35	45.00	45.38	Jalpaiguri.
		43.93	19.74	+24.19	24.00	17.47	70.12	59.99	+10.13	50.25	44.80	44.80	Kuch Bihar.
9.9	+1.1	25.04	37.07	34.85	+2.22	27.25	24.05	68.98	70.75	—1.77	54.00	51.99	Darjeeling.
8.0	—	28.01											Sikkim.
6.9	+1.0	19.99	30.33	31.08	—10.73	22.50	21.79	89.85	66.66	+24.19	53.00	45.00	Chittagong.
			20.16	19.04	+1.12	25.00	22.00	69.43	42.11	+27.32	60.00	47.35	Chittagong Hill Tracts.
8.9	—	15.27	18.83	17.98	—2.15	22.25	21.51	55.38	40.91	+14.47	49.5		



in Bengal in July 1893.

[illegible]



in Bengal in July 1893—continued.

31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Station.	District.	Meteorological division.
0.31	0.55	0.70	1.25	0.81	...	0.68	...	0.01	1.60	0.04	24	15.00	16.43	11.41	1.65	37.16	23.04	Malda	...	Malda	...	North Bengal- conoid.											
0.23	0.53	0.58	...	0.37	1.10	0.23	...	0.15	...	0.70	24	17.33	16.18	12.36	2.03	27.01	23.18	Chanchal.	...	Malda	...	North Bengal- conoid.											
0.15	1.08	0.07	0.08	0.70	...	...	...	1.08	...	...	2	...	18.85	1.68	...	...	23.18	Gujol.	...	Malda	...	North Bengal- conoid.											
0.20	0.16	0.52	0.10	0.05	...	...	...	1.40	0.71	...	2	...	18.85	1.68	...	...	31.54	Sibpur.	...	Malda	...	North Bengal- conoid.											
0.18	...	0.37	2.60	0.70	0.05	...	...	1.20	0.21	0.17	23	14.50	16.85	11.41	2.60	37.04	27.91	Mohammadpur...	...	Dinajpur.	...	North Bengal- conoid.											
...	1.05	1.74	...	0.94	1.48	...	...	0.19	0.12	0.04	21	16.55	17.31	11.41	1.91	37.16	26.87	Charamon.	...	Dinajpur.	...	North Bengal- conoid.											
0.53	1.70	2.70	...	1.14	1.73	...	...	0.31	2.25	0.03	24	17.07	24.44	12.25	3.30	44.87	30.33	Raiganj.	...	Dinajpur.	...	North Bengal- conoid.											
0.4	0.23	1.31	0.83	0.18	0.46	...	...	0.02	0.21	...	23	15.70	14.55	13.45	1.42	35.96	31.74	Dinajpur.	...	Dinajpur.	...	North Bengal- conoid.											
0.21	0.21	0.22	0.24	0.15	0.33	0.47	...	0.02	4.07	0.41	1.71	...	15.75	19.13	11.43	1.72	31.13	23.33	Halorahat	...	Dinajpur.	...	North Bengal- conoid.										
0.31	2.00	2.55	...	1.33	1.01	...	...	0.87	0.11	...	23	...	37.10	?	7.04	67.61	23.33	Thakurgaon.	...	Dinajpur.	...	North Bengal- conoid.											
0.19	0.59	0.46	0.31	0.33	1.17	0.97	...	3.46	0.10	...	0.13	21	12.20	23.28	12.24	2.81	45.63	33.40	Bhowaniganj	...	Bangpur.	...	North Bengal- conoid.										
...	0.34	2.06	0.27	0.31	0.42	...	...	1.09	0.19	...	...	19	14.75	18.02	10.48	2.06	41.30	42.74	Chandpur.	...	Bangpur.	...	North Bengal- conoid.										
0.4	0.33	...	0.90	0.80	0.38	1.00	0.07	2.15	0.01	...	...	25	?	19.58	?	2.14	...	...	Poorjani.	...	Bangpur.	...	North Bengal- conoid.										
0.56	0.13	3.10	0.15	0.33	2.02	0.55	...	0.50	0.29	...	...	21	12.50	38.90	13.40	6.31	55.63	43.72	Kuriganj.	...	Bangpur.	...	North Bengal- conoid.										
...	0.31	0.73	...	0.43	1.05	...	...	1.50	0.03	...	...	29	?	11.31	?	1.79	40.93	...	Gobindganj.	...	Bangpur.	...	North Bengal- conoid.										
0.13	0.54	3.42	0.24	0.30	0.37	0.34	0.34	0.82	...	0.49	25	14.40	30.00	13.73	4.00	40.54	48.03	...	Bagdara.	...	Bangpur.	...	North Bengal- conoid.										
...	0.26	0.85	...	0.12	0.45	...	...	1.17	0.75	...	...	19	?	17.36	?	2.74	40.81	...	Nalanda.	...	Bangpur.	...	North Bengal- conoid.										
0.08	2.10	1.24	...	1.59	0.43	0.23	0.12	1.01	...	...	...	20	?	22.20	?	3.12	...	...	Sandarganga.	...	Bangpur.	...	North Bengal- conoid.										
0.03	5.00	0.54	1.84	2.31	0.63	0.15	0.66	0.14	0.86	0.15	27	13.35	34.36	25.06	5.90	57.97	01.52	Jalpaiguri	...	Jalpaiguri.	...	North Bengal- conoid.											
...	4.75	1.44	1.82	1.10	...	3.39	4.38	3.65	...	...	27	?	45.71	?	4.75	61.16	...	...	Alipora Dwar.														





in Bengal in July 1893—concluded.

21	22	23	24	25	26	27	28	29	30	31	Number of rainy days.	Average number of rainy days.	Total rainfall for the month.	Average rainfall for the month.	Heaviest rainfall during the month.	Total rainfall from 1st May 1893 to 31st July 1893.	Average rainfall from 1st May to 31st July.	Station.	District.	Meteorological Division.	
0.10	0.25	0.00	1.60	0.35	0.00	0.21	0.30	0.10	0.75	1.80	18	12.79	14.27	12.10	1.95	21.01	20.88	Tajpur	Darbhanga.	North Bihar—concluded.	
0.10	0.25	0.00	1.60	0.35	0.00	0.21	0.30	0.10	0.75	1.80	18	12.79	14.27	12.10	1.95	21.01	20.88	Darbhanga.	Darbhanga.	North Bihar—concluded.	
1.30	3.13	0.00	0.82	...	...	...	...	...	...	...	12	?	12.00	?	3.13	23.45	?	Bakura.	Muzaffarpur.		
0.00	1.80	1.57	0.51	0.27	1.55	0.21	1.02	1.10	0.73	1.30	22	10.80	11.00	10.50	3.75	33.54	19.77	Sitamarhi	Muzaffarpur.		
0.30	0.67	1.46	0.03	...	0.25	0.02	0.29	0.20	0.03	0.20	23	14.00	13.44	11.81	1.47	18.34	20.72	Muzaffarpur.	Muzaffarpur.		
0.41	0.38	0.01	0.16	0.35	0.83	...	...	...	1.42	...	13	13.70	12.39	11.85	3.63	20.04	19.72	Hajipur.	Hajipur.		
...	...	2.83	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Faru.	Faru.		
...	0.25	0.12	1.35	0.08	2.85	...	...	2.70	...	...	15	?	10.20	?	2.85	?	?	Mahus (Unit-warra).	Champanan.		
0.13	3.10	2.34	1.21	...	1.12	0.23	...	0.20	2.93	0.04	23	11.29	31.92	10.45	3.10	45.28	19.71	Sihar.	Champanan.		
1.51	0.03	1.80	0.17	...	2.43	0.20	...	0.10	1.08	0.30	20	12.05	21.22	12.08	3.40	29.32	22.34	Pupri.	Champanan.		
0.69	0.23	1.47	1.24	0.02	1.81	1.11	1.03	...	3.91	1.84	0.12	21	?	25.55	?	3.91	37.05	?	Meheri.	Champanan.	
1.11	0.03	1.04	0.58	...	0.19	...	...	0.45	0.37	0.06	15	?	0.34	?	1.19	18.56	?	Bapaha.	Saran.		
0.21	1.00	1.21	0.17	...	0.18	0.02	...	0.30	0.38	0.04	20	13.17	15.22	12.51	2.30	24.34	20.18	Burhura.	Saran.		
0.00	1.15	1.40	0.70	0.03	0.87	0.14	0.05	...	0.02	0.11	19	13.80	11.97	11.73	1.77	10.51	10.54	Gumkaj.	Saran.		
0.22	0.07	2.50	0.12	0.30	0.18	...	...	0.41	0.28	...	22	14.15	9.85	12.30	1.98	17.80	10.23	Swan.	Saran.		
0.05	...	...	...	...	1.40	0.30	...	...	...	...	...	...	...	...	2.50	...	...	Chapra.	Saran.		
2.61	0.11	1.09	...	...	0.35	...	...	...	...	...	16	13.80	12.23	11.97	2.01	17.19	10.68	Basantpur.	Saran.		
3.80	0.75	0.61	...	...	0.11	0.03	...	...	0.73	...	19	13.73	17.05	12.31	3.31	26.50	15.14	Bohar.	Saran.		
2.24	0.09	0.42	...	...	...	...	...	...	...	...	14	14.05	11.87	11.31	3.00	17.14	10.53	Dohri.	Saran.		
3.00	1.08	...	...	...	0.16	0.02	...	...	...	...	14	14.04	15.22	11.03	2.32	23.31	18.12	Rhabhua.	Saran.		
1.72	0.29	0.06	...	...	...	...	...	...	...	...	14	?	12.10	?	2.10	10.53	?	Saram.	Saran.		
0.45	...	...	...	...	...	...	...	...	...	...	14	?	13.08	?	5.31	?	?	Aradh.	Saran.		
0.14	0.24	...	...	...	...	...	...	...	...	...	11	?	14.04	?	3.37	?	?	Mohaniah.	Saran.		
0.38	1.27	0.31	...	...	...	...	...	...	...	...	15	?	13.24	?	2.00	19.10	?	Khiri.	Saran.		
0.20	2.34	...	...	...	...	...	...	...	0.20	...	14	?	10.41	?	1.00	19.74	?	Agam.	Saran.		
2.61	1.18	...	...	...	...	...	...	...	...	...	14	?	9.51	?	2.50	?	?	Ramnagar.	Saran.		
2.40	0.25	0.22	...	...	...	...	...	...	...	...	10	?	14.14	?	2.07	21.51	?	Koath.	Saran.		
...	...	...	...	...	...	...	...	...	...	...	18	?	9.45	?	2.43	?	?	Nikoul.	Saran.		
2.42	1.25	...	0.05	...	...	...	...	...	...	...	16	13.70	11.76	12.10	2.31	18.70	10.21	Besawan.	Saran.		
0.25	1.63	0.32	...	...	...	...	...	...	1.82	...	15	15.65	13.02	12.86	2.45	23.43	20.33	Munaharpur.	Saran.		
0.80	2.14	...	...	...	...	...	1.17	0.00	1.33	...	17	13.60	12.11	11.71	2.44	24.34	18.56	Aurangabad.	Gaya.		
2.41	0.87	0.81	0.25	...	...	...	...	...	0.20	...	19	13.40	27.21	12.44	0.87	37.36	18.56	Nawad.	Gaya.		
0.35	1.21	2.35	0.61	...	...	...	...	...	0.09	...	12	?	13.05	?	2.02	21.17	?	Jahanabad.	Gaya.		
1.41	0.25	0.71	...	...	...	1.29	...	...	0.20	...	17	?	9.82	?	1.13	17.90	?	Arwal.	Gaya.		
2.40	1.50	...	...	...	...	...	...	...	0.20	...	17	?	17.00	?	4.10	?	?	Daudnagar.	Gaya.		
1.40	1.30	0.19	0.05	...	0.38	...	...	0.00	2.51	0.10	20	?	16.35	?	2.50	?	?	Narghat.	Gaya.		
2.04	4.83	0.09	...	...	...	0.31	...	...	...	...	?	?	?	?	4.83	?	?	Rajauli.	Gaya.		
0.39	0.00	0.06	0.25	0.06	...	0.03	...	0.31	...	...	15	13.85	14.50	11.59	3.87	25.58	19.08	Pakri Bara-wan.	Gaya.		
0.17	0.30	0.35	0.34	0.34	...	0.30	...	0.03	...	...	18	14.10	15.32	11.31	4.08	21.20	19.04	Patna.	Patna.		
3.00	0.35	...	0.30	...	...	...	...	0.16	...	...	18	15.05	13.19	12.60	2.00	28.08	21.46	Dinapore.	Patna.		
0.73	0.25	0.45	0.32	...	...	...	...	0.27	...	...	15	13.10	9.65	12.22	2.10	19.87	18.05	Dimapur.	Patna.		
0.50	0.70	...	...	...	...	...	...	0.27	...	...	19	?	14.02	?	2.40	24.02	?	Bach.	Patna.		
...	0.88	...	...	...	...	...	1.34	...	...	...	14	14.70	17.33	11.11	4.09	31.31	18.77	Bisram.	Patna.		
0.27	0.20	0.25	0.03	0.14	...	...	...	...	...	...	14	15.50	14.94	12.35	3.15	24.21	20.54	Begusarai.	Moakhyr.		
0.04	0.18	...	0.20	...	...	...	...	0.27	...	...	18	10.70	11.28	12.75	2.09	21.12	20.58	Monkpur.	Moakhyr.		
0.50	2.70	...	...	...	...	...	...	0.00	...	...	10	?	18.50	?	2.10	?	?	Jamui.	Moakhyr.		
0.60	1.84	0.02	2.34	0.13	...	...	...	0.17	0.24	...	22	?	15.32	?	3.00	31.72	?	Gopri.	Moakhyr.		
...	1.09	0.10	0.42	1.71	0.09	0.03	0.18	0.19	...	...	21	15.42	18.14	12.93	3.04	31.78	23.22	Shankarpara.	Moakhyr.		
1.03	0.90	...	...	...	...	...	...	0.15	0.02	17	16.08	13.27	11.07	3.83	20.10	20.10	Chakki Banda.	Moakhyr.			
0.14	0.18	0.65	0.71	0.74	0.36	0.12	...	0.02	0.25	17	17.21	14.21	12.44	4.13	43.37	23.03	Chuprun.	Moakhyr.			
0.41	0.07	0.25	0.36	0.01	1.30	...	...	0.09	0.09	10	14.30	14.14	13.44	2.23	36.41	24.44	Rajmahal G. dda.	Sonthal Paraganas.			
1.06	1.54	...	0.55	0.06	0.04	...	1.12	...	0.15	18	18.20	14.30	13.01	1.02	31.32	23.79	Pakora.	Sonthal Paraganas.			
1.25	0.50	...	0.10	1.32	0.37	0.19	...	0.04	18	18.00	12.61	13.66	2.75	32.58	24.21	24.44	Naya Dumua.	Sonthal Paraganas.			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Doughur.	Sonthal Paraganas.		
0.60	0.15	...	0.04	1.67	0.83	...	0.21	0.41	...	0.02	20	18.00	14.71	13.55	3.05	30.11	22.25	Jamiatra.	Sonthal Paraganas.		
1.25	0.13	0.05	...	0.18	...	0.04	...	0.07	0.06	0.25	23	19.70	22.00	12.91	4.69	41.21	21.01	Belbadda.	Sonthal Paraganas.		
0.31	0.10	...	...	...	...	...	...	0.41	0.11	0.15	19	13.02	10.10	13.81	3.04	21.30	21.30	Amhiti.	Sonthal Paraganas.		
0.40	0.46	...	0.35	0.00	...	...	...	0.31	0.31	0.31	19	?	21.47	?	4.79	?	?	Pachamunda.	Sonthal Paraganas.		
1.50	1.50	...	...	...	...	...	...	0.45	...	0.64	13	?	10.10	?	5.79	?	?	(Grisi).	Sonthal Paraganas.		
2.07	0.18	...	0.62	0.02	...	...	...	0.40	0.45	0.35	15	?	13.47	?	3.40	?	?	Hazaribagh.	Chota Nagpur.		
1.00	...	...	...	...	...	...	...	0.51	14	?	19	?	13.47	?	4.80	?	?	Sontaguran.	Chota Nagpur.		
0.03	0.10	0.34	...	0.16	...	...	...	0.37	18	19.45	16.10	13.72	1.80	32.31	21.32	21.32	Mahudi Hills.	Chota Nagpur.			
0.10	0.10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	?	Jhoomur-h Hills.	Chota Nagpur.		
1.08	0.02	0.30	0.16	0.06	0.04	0.06	...	0.12	1.03	0.40	33	?	20.10	?	5.21	31.34	?	Barhi.	Chota Nagpur.		
0.27	...	0.01	0.02	...	...	...	...	0.10	0.05	1.00	22	?	16.32	?	2.61	34.81	?	Chatra.	Chota Nagpur.		
...	0.01	...	...	...	...	...	...	0.03	1.47	0.72	21	?	12.80	?	2.07	27.00	?	Karagdeha.	Chota Nagpur.		
0.01	0.75	...	0.00	0.17	...	...	...	0.04	0.70	0.10	18	16.45	11.24	12.56	2.21	24.15	10.05	Ramghar.	Chota Nagpur.		
1.25	0.30	...	0.50	0.02	...	...	...	0.09	...	0.11	19	?	17.15	?	3.38	36.66	?	Gohindpur.	Chota Nagpur.		
0.68	0.38	...	...	...	...	...	...	0.07	...	...	19	?	14.81	?	2.25	26.51	?	Rughanathpur.	Chota Nagpur.		
3.30	4.32	...	...	...	...	...	...	...	...	...	16	?	16.08	?	3.75	21.52	?	Palamau.	Chota Nagpur.		
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
0.26	0.01	...	0.43	0.02	...	...	0.58	0.01	0.01	1.55	11	17.15	8.90	14.27	1.55	31.17	24.30	Chatusa.	Sasbhuu.		
0.00	0.17	...	0.00	0.07	0.03	0.07	...	0.30	0.30	0.17	12	?	7.85	?	2.30	35.03	?	Chakradhar.	Sasbhuu.		
0.05	...	...	0.20	...	...	...	...	0.13	0.43	1.10	14	?	8.05	?	1.75	21.03	?	Chatsila.	Sasbhuu.		
0.20	...	...	...	...	...	0.25	...	0.29	0.15	1.10	14	?	7.90	?	1.70	50.86	?	Baharagura.	Sasbhuu.		
3.15	0.10	...	...	...	...	...	2.13	1.02	0.15	0.34	15	?	10.86	?	3.10	?	?	Qalkura.	Sas		

## SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSERVATIONS TAKEN IN ASSAM, FOR THE MONTH OF JULY 1893.

A VERY noticeable feature of the pressure arrangement during July has been the displacement of the trough of low pressure towards the north. This trough usually extends from the head of the Bay in a north-westerly direction, and when it occupies its normal position there is a free easterly air current up the plane of the Ganges. During the past month it has very frequently been close to the foot of the hills, and then, instead of the easterly winds in North Bengal and Bihar, directions have been westerly. As in that case the wind blows from the Central Provinces, the air is not so highly saturated with moisture, and under ordinary circumstances gives very little rain to the districts where westerly winds prevail.

In the light of these remarks it appears easy to account for the great variation of rainfall during July in the various districts, with the exception of North Bihar, where the very heavy falls are not so easily dealt with. The strength of the monsoon current crossing the Burma and Bengal coasts is very little affected by the position of the trough of low pressure till the current is well inland. Instead of moving westward across North Bengal when the trough is near the hills, the pressure distribution bars its progress, and whether because of interference of two different air currents, or because the moist current from the Bay is forced upward, there is under these circumstances much more precipitation of moisture in North Bengal and the adjoining districts of East Bengal and Assam.

During the past month these conditions have obtained very frequently. Rainfall has been scanty in Orissa and South-West Bengal, normal in East Bengal, and much above the normal in North Bengal and North Bihar. The large average excess in North Bengal is, as stated above, due to the monsoon current undergoing the check to its westward progress over that part of the province. The almost as large excess of  $6\frac{1}{2}$  inches in North Bihar is probably due to the monsoon current moving westwards at a higher level, gradually descending as it gets further west. That this is possible is shown by the excess rainfall in the various districts of North Bihar with the exception of Champaran. Excess gradually diminishes from 77 per cent. of the normal fall in Purneah to 51 in Bhagalpur, 40 in Darbhanga and Muzaffarpur and only 4 in Saran. The large excess of 113 per cent. in Champaran is probably due to local conditions. The rainfall in Chota Nagpur and South Bihar is about 2 inches above the normal, a small excess, which is probably due to these districts being partly affected by the conditions which determined the defect in Orissa and the larger excess in North Bihar.

Another noteworthy circumstance in connection with the general weather conditions is the almost entire absence of depressions in the north of the Bay. An important disturbance developed over Lower Bengal at the end of June, but by the beginning of July the normal distribution of pressure prevailed. There was little change up till the 15th, when a shallow depression again formed over Lower Bengal and practically disappeared on the following day. Another and somewhat deeper depression formed on the 29th in the north-west angle of the Bay, where it remained till the end of the month, developing slowly and causing much steeper gradients towards the south, a cyclonic circulation over the Bay and the province, and stronger winds.

At the beginning of the month pressure was in excess by more than a tenth of an inch in Lower Bengal and the west of Bihar, while readings were practically normal in North Bengal and Assam. A low pressure area lay along the foot of the Himalayas, and winds were westerly in all districts. From the 2nd to the 4th heavy rain fell in Bihar, North Bengal and East Bengal. Owing to a steady fall of pressure which then commenced, the distribution of pressure became normal by the 5th, and the usual south-easterly winds prevailed except in Orissa and South-West Bengal. Pressure fell briskly in the northern districts on the 10th, the trough of low pressure moved close to the hills and westerly winds again prevailed. As before, heavy rain was reported from North Bengal, but especially Rangpur, Jalpaiguri and Kuch Bihar. At the same time there was a high pressure area over the north-west of the Bay and the adjacent country, which was attended in these parts by fine and almost rainless weather. Up till the 13th there was little change, but then pressure began to fall in Lower Bengal, and the shallow depression mentioned above began to form. Local storms occurred in the south of the province, and rainfall became lighter in the northern districts. The cyclonic circulation continued for two or three days, but by the 16th normal pressure and wind circulation were established. General rain fell for some days with the heaviest falls in the western districts. Up till the 21st no change of importance took place, and almost general rain was falling. On the 22nd, however, a further extension of the westerly winds took place over the province, accompanied by a distinct area of relatively high pressure in the south-western districts. With this change the area of heavy rainfall was shifted towards the east and north, and conditions became unfavourable for rain in Orissa and South-West Bengal. "On the 24th there was a general fall of pressure over the province, and the distribution became rather more normal than it had been, but south-westerly winds still prevailed in most districts. On the 25th pressure again fell in Orissa, and partly in the southern districts, while it was rising elsewhere, particularly in Bihar, so that the area of



high pressure in the extreme west of the province tended to re-establish itself. This was succeeded on the 26th by a further rather rapid and general increase of pressure, and a decided area of comparatively high pressure again covered the western half of the province, and this area gradually extended on the 27th and 28th until it reached South-East Bengal; but on the 29th a moderate fall of pressure commenced, tending to partially efface this abnormal distribution of pressure." On the 30th a shallow low pressure area formed over the north of the Bay, where it remained till the 31st, with only a slight increase of intensity. General light rain fell in all districts during these days, and a light cyclonic circulation prevailed.

*Pressure.*—Mean pressure for the month has been above the normal in all districts by about .04 inch in Lower Bengal, Orissa and the west of Bihar, and by rather more than .02 inch in North Bengal and Assam. The changes from day to day have never been of much importance because of the occurrence of only two depressions which remained very shallow during the short time of their existence. At the beginning of the month there was excess of between .1 inch and .15 inch in the north-west of the Bay, Orissa and South-West Bengal, but a steady fall resulted in a general small defect on the 5th. On the 6th a wave of rising pressure was moving across the province from the east, and readings on the 7th were again considerably above the normal, continuing high till the 12th, when the distribution was very nearly normal. From the 13th to the 17th there was either a small defect or a very slight difference from the normal, and till the 24th a small excess. From the 24th to the 30th there was moderate excess, but during the last two days the depression was forming over the north of the Bay and defect prevailed.

*Temperature.*—Except in Orissa, where temperature has been practically normal, means for the month are below the normal for all districts. In Assam defect is  $2.1^{\circ}$ , North Bengal  $1.6^{\circ}$ , North Bihar  $1.2^{\circ}$ , South Bihar  $0.9^{\circ}$ , East Bengal  $0.7^{\circ}$ , South-West Bengal  $0.5^{\circ}$ , and Chota Nagpur  $0.4^{\circ}$ . Owing to the cloudy weather which has been more prevalent than usual in East and North Bengal, Assam, and Bihar, the difference is greater in day than in night temperatures. The difference of mean maximum temperature from the normal varies from excess of about half a degree in Orissa to defect of nearly  $4^{\circ}$  at Rangpur, Mymensingh and Silchar. Night temperatures on an average are almost normal except at a few scattered places, defect being generally less than half a degree. During the previous month lowest temperatures were in the western districts and especially Chota Nagpur, but during July the heavy rainfall has caused cooler weather in the northern and eastern districts.

*Rainfall.*—The most noticeable circumstance in connection with the rainfall has been the very heavy falls in North Bengal and North Bihar, while in Orissa there is a deficiency of nearly a third of the normal. This has been accounted for above by the pressure arrangement which was very persistent throughout the month. The total average fall in North Bengal is 23.39 inches, giving excess of 9.31 inches, and in North Bihar it is 18.41, with excess of 6.23 inches. In South Bihar and Chota Nagpur excess is between 2.5 and 3 inches, and in South-West and East Bengal the average falls are very nearly normal. In Orissa the fall is 8.41 inches as compared with a normal fall of 12.5 inches. Though not so irregular as during the month of June, there is still greater irregularity shown than is usual during July.

METEOROLOGICAL DIVISIONS.								Actual rainfall of first seven months of 1893 expressed as a percentage of the normal fall for the period.
	January.	February.	March.	April.	May.	June.	July.	
Orissa	422	309	238	89	607	99	67	169
South-West Bengal	120	464	180	115	225	183	94	160
North Bengal	104	877	145	213	90	100	166	131
East Bengal	80	291	123	149	307	134	108	139
North Bihar	170	367	134	208	84	100	151	132
South Bihar	116	602	188	255	171	156	122	149
Chota Nagpur	155	585	226	151	212	185	131	167

Except in the extreme east, the total falls for the month are below the normal in Lower Bengal, the coast districts of Orissa, and the southern districts of Chota Nagpur including Lohardaga and Singhbhum. Along the coast of Orissa little more and in many cases less than 5 inches have been received. In the other parts of Orissa and the adjacent districts of Chota Nagpur and South-West Bengal, also in part of East Bengal, including the greater part of Jessore and Faridpur, falls are generally between 8 and 10 inches. Over the rest of the southern part of the province falls vary somewhat irregular, from 10 to 15 inches except in the Sunderbuns, Noakhali and Chittagong, where amounts range up to 30 inches. In the north of East Bengal, North Bengal, and North Bihar the normal is almost everywhere exceeded, but by very irregular amounts. In Mymensingh excess varies from 4 to 18 inches, in Kuch Bihar from 18 to 34 inches, and in Jalpaiguri

from 12 to 20 inches. In North Bihar excess is nearly 10 inches in Purneah, but diminishes steadily towards the west, where it is small except in the districts near the foot of the hills. In Champaran there is excess of 21, in Sitarampur of 11, and in Bettiah of 8 inches. Along the boundary of North Bengal and Assam falls increase with great rapidity towards the north. Ulipur received 17·86, Sunderganj 22·2, Kurigaon 35·9, Dinhatta 39·65, and Matabhanga 56·68 inches. The heaviest fall reported is 67·27 inches at Buxa, an amount about 20 inches in excess of the normal. In these northern districts falls are almost all from 30 inches upwards except in the Darjeeling Hills, where they are between 20 and 25 inches. Except at the most northern stations in North Bihar falls are generally between 15 and 20 inches. Sitamarhi received 21·66, Motihari 31·92, Bettiah 21·22, and Bagaha 25·53 inches.

The following table gives full data for the comparison of the actual and normal rainfall of the month of July in all districts of the province. The figures are derived from the average and actual rainfall of the rain-recording stations in each district, due allowance being made for the area which each station represents. This gives a more accurate average than the arithmetical means given in the weekly and monthly meteorological tables. The first column gives the normal or average district rainfall as determined from the rainfall observations of the past fifteen years. The second column gives the actual district rainfall as determined from the weighted actual rainfalls of the month at the reporting stations in each district. The third column expresses the ratio of the actual district rainfall of the past month to the normal rainfall as a percentage, and the fourth column gives the same information in a slightly different form, expressing as a percentage how much the district rainfall varied in excess or in defect from the normal rainfall:—

*Percentage Table for July 1893.*

DIVISION.	DISTRICT.	Normal district rainfall for July.	Actual district rainfall for July 1893.	Percentage of actual to normal rainfall.	Percentage excess (+), deficit (-).
Orissa	Puri	10·65	6·85	64	— 36
	Cuttack	12·20	7·41	61	— 39
	Balasore	12·20	8·02	66	— 34
	Midnapore	13·76	8·13	59	— 41
	24 Parganas	12·97	10·87	84	— 16
	Howrah	13·13	9·09	69	— 31
	Hooghly	12·71	10·03	79	— 21
South-West Bengal	Burdwan	11·80	12·73	108	+ 8
	Bankura	18·12	10·46	80	— 20
	Birbhum	12·86	15·09	117	+ 17
	Nadia	10·48	11·48	110	+ 10
	Khulna	13·46	13·51	100	— 23
	Jessore	10·66	8·15	77	— 24
	Murshidabad	11·00	13·66	124	+ 37
East Bengal	Chittagong	28·52	17·98	63	— 15
	Backergunge	18·78	16·07	85	+ 10
	Noakhali	21·82	24·10	110	+ 26
	Faridpur	12·49	9·18	74	— 31
	Dacca	13·84	9·61	69	— 15
	Tippera	16·27	17·69	116	+ 85
	Mymensingh	13·66	25·12	185	+ 68
North Bengal	Pabna	10·83	17·08	158	+ 4
	Bogra	13·09	14·23	104	— 3
	Rajshahi	11·82	11·44	97	+ 34
	Malda	11·60	15·46	134	+ 57
	Dinajpur	12·14	19·05	157	+ 91
	Rangpur	13·90	26·50	191	+ 126
	Kuch Bihar	20·09	45·43	226	+ 49
North Bihar	Jalpaiguri	25·66	38·36	149	— 17
	Darjeeling	30·07	25·06	83	+ 77
	Purnea	16·47	27·33	177	+ 51
	Bhagalpur	11·26	17·04	151	+ 37
	Darbhanga	11·80	15·86	137	+ 40
	Muzaffarpur	11·26	15·80	140	+ 113
	Champaran	12·12	25·81	213	+ 4
South Bihar	Saran	11·41	11·90	104	+ 23
	Shahabad	11·97	14·61	123	+ 23
	Gaya	11·83	14·69	123	+ 10
	Patna	12·12	13·28	110	+ 16
	Monghyr	11·89	13·77	116	+ 17
	Sonthal Parganas	12·97	15·13	117	+ 41
	Hazaribagh	13·40	15·83	141	+ 5
Chota Nagpur	Lohardaga	12·94	7·91	61	— 39
	Palamau	12·66	13·24	106	+ 88
	Singbhum	14·27	8·90	62	+ 27
	Manbhum	11·63	14·70	127	

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the month of July 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.						RAINFALL.							
	Highest observed during month.	Lowest observed during month.	Averages for month.			Average mean of month above or below normal mean of month.	Of month.			Rainy days.			Since 18th May 1893.	
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in month.	Normal average number in month.	Variation.	Average.	Normal average.
Orissa ... ..	96·7	73·8	88·8	78·7	83·7	+0·1	8·41	12·50	—4·09	13·00	14·92	—1·92	36·35	23·47
South-West Bengal ... ..	104·7	73·7	88·5	78·8	83·6	—0·5	11·30	12·00	—0·70	16·67	16·55	+0·12	38·24	24·74
North Bengal ... ..	93·3	73·6	87·1	77·4	82·3	—1·6	23·39	14·08	+9·31	21·96	15·67	+6·39	40·73	36·92
East Bengal ... ..	91·3	78·1	85·6	77·5	81·6	—0·7	17·09	16·60	+0·49	21·28	18·77	+2·51	53·36	38·09
North Bihar ... ..	94·8	74·2	88·1	78·1	83·1	—1·2	18·41	12·18	+6·23	20·00	13·98	+6·02	28·03	22·55
South Bihar ... ..	95·0	72·8	88·5	78·3	83·4	—0·9	14·76	12·14	+2·62	17·45	13·27	+2·18	26·55	20·31
Chota Nagpur ... ..	93·9°	69·4°	85·9°	73·7°	79·8°	—0·4	15·33	13·16	+2·77	19·18	16·51	+0·67	34·49	22·70
Assam ... ..	92·1	73·8	86·5	76·8	81·7	—2·1								

\* Daltonganj not included.

METEOROLOGICAL OFFICE, BENGAL,  
The 15th August 1893.

C. LITTLE,  
Offg. Meteorological Reporter to the Govt. of Bengal.

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	STATION OBSERVATIONS.														
	DISTRICT.	Representative station.	AIR PRESSURE.				WIND.		TEMPERATURE.						
			Mean barometric height, S. A. W. reduced to 32°.	Mean reduced to sea-level and constant gravity, lat. 49°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.	
ORISSA.	Puri	Puri	29.658	29.613	—	SW	364	87.7	6, 7, 12 Aug.	70.6	7 & 8 Aug.	80.3	78.9	82.6	
		Gopalpore	29.667	29.628	+0.050	SW	552	87.7	6th	72.3	12th	85.3	77.2	81.3	
		False Point	29.652	29.615	+0.035	WSW	397	90.0	12th	76.6	8th	87.2	79.3	83.3	
SOUTH-WEST BENGAL.	Cuttack	Cuttack	29.570	29.598	+0.016	SW	134	89.7	12th	75.8	8, 11 & 12	86.4	77.8	82.0*	
		Balasore	29.674	29.676	0	SW	165	89.4	6th	75.7	9 & 11	86.1	77.0	81.6	
		Midnapore	29.485	29.580	—0.008	SWly	112	91.3	6th	76.1	6th	87.6	77.4	82.5	
SOUTH-WEST BENGAL.	24-Parganas	Calcutta	29.620	29.587	+0.013	SW	185	88.6	6th	76.2	9th	86.5	78.3	82.4	
		Saugor Island	29.622	29.602	+0.013	SSW	570	89.2	8th	77.5	7th	86.1	79.5	82.8	
		Howrah	29.658	29.577	+0.015	Variable	172	90.3	6th	76.2	9, 10	87.7	78.1	82.9	
SOUTH-WEST BENGAL.	Nadia	Krishnagar	29.617	29.597	+0.007	Variable	112	91.0	6th	75.9	9th	86.9	78.3	82.6	
		Jessore	29.636	29.581	+0.011	SW	106	89.6	7th	77.2	9, 10	87.3	78.1	83.0	
		Burdwan	29.624	29.569	+0.004	SW	92	92.7	6th	75.0	9, 10	89.1	76.8	83.0	
SOUTH-WEST BENGAL.	Bankura	Bankura	29.597	29.546	—0.007	SEly	90	91.1	6th	75.6	10th	87.2	77.1	83.2	
		Birbhum	29.558	29.573	—0.006	E & SSW	158*	90.1	6th	76.3	10th	87.0	78.2	82.6	
		Murshidabad	29.600	29.596	—0.007	SWly	106	89.1	7th	74.7	10th	84.9	76.9	80.0	
NORTH BENGAL.	Bogra	Bogra	29.571	29.584	+0.021	SE	105	89.2	7th	74.2	10th	86.1	76.5	81.3	
		Rampur Baulia	29.551	29.570	+0.003	SE	215	89.6	6th	74.1	12th	86.8	76.4	81.7	
		Malda	29.528	29.550	—	SE	88	90.8	7th	76.9	10th	87.3	78.6	82.9	
NORTH BENGAL.	Dinajpur	Dinajpur	29.595	29.581	—0.008	Variable	62	91.1	7th	75.7	12th	86.2	78.1	82.2	
		Rangpur	29.517	29.594	—0.004	SSW	70*	91.3	7th	74.7	10th	85.7	77.0	81.4	
		Jalpaiguri	29.363	29.600	+0.010	ESE	102	90.4	7th	74.6	10th	86.5	75.9	81.2	
NORTH BENGAL.	Kuch Bihar	Darjeeling	22.876	—	—0.017	E	162	68.1	7th	56.1	8, 9, 10	63.7	56.8	60.3	
		Sikkim	19.001	—	—	ESE	63	56.3	8th	36.1	7th	52.8	38.5	45.7	
		Chittagong	29.617	29.682	+0.027	SE	152	88.2	8th	74.1	9th	83.0	75.7	79.4	
EAST BENGAL.	Chittagong Hill Tracts	Demagiri	29.660	29.626	+0.025	SWly	165	89.8	7th Aug.	75.9	9, 10th	85.4	77.4	81.4	
		Backergunge	29.646	29.636	+0.008	SW	234	89.0	8th	74.8	9th	84.6	76.4	80.6	
		Noakhali	29.630	29.624	+0.009	S	157	86.3	6th—8th	75.4	9th	84.6	77.5	81.1	
EAST BENGAL.	Faridpur	Faridpur	29.635	29.605	+0.002	SW & ESE	249	89.1	7th	75.7	10th	85.2	78.1	81.7	
		Dacca	29.601	29.644	+0.021	SE	177	89.9	7th	74.8	10th	85.1	76.6	80.9	
		Tippera	29.603	29.613	—0.006	ESE & SSW	163	89.2	7th	74.6	10th	84.1	76.3	80.3	
NORTH BHAR.	Mymensingh	Mymensingh	29.486	29.557	—0.021	Variable	38	91.2	7th	76.2	12th	87.5	78.6	83.1	
		Purnea	29.428	29.540	—0.016	Calm & SEly	53	91.7	7th	76.0	11th	87.2	77.6	82.5	
		Darbhanga	29.419	29.538	—0.032	Variable	148	89.9	6 & 8	76.2	12th	85.6	78.3	81.9	
NORTH BHAR.	Muzaffarpur	Muzaffarpur	29.409	29.540	—	ESE	153	90.7	6 & 8	76.2	10 to 12	87.1	78.2	82.7	
		Champanan	29.344	29.524	—0.036	ESE	168	88.2	6th	74.9	12th	88.2	77.2	82.7	
		Saran	29.300	29.583	—0.007	SEly	104	91.3	8th	76.6	11th	87.0	78.4	83.2	
SOUTH BHAR.	Shahabad	Dehri	29.232	29.535	—0.021	SW	174	89.3	8th	76.0	10th	86.4	77.5	82.0	
		Buxar	29.550	29.523	—0.029	WSW	205	91.5	8th	76.3	10, 11	87.6	77.1	82.4	
		Arrah	29.578	29.510	—0.019	Ely	85	92.4	8th	76.5	10th	88.9	78.6	83.7	
SOUTH BHAR.	Gaya	Gaya	29.500	29.528	—0.027	Variable	137	92.4	8th	76.8	12th	89.1	77.7	83.4	
		Patna	29.353	29.527	—0.037	Variable	177	92.0	8th	75.7	10th	87.0	78.1	83.0	
		Monghyr	29.113	29.556	—0.005	Sly	108	90.1	6th	76.8	9, 11	86.5	76.9	81.7	
CHOTA NAAGPUR.	Hazaribagh	Hazaribagh	27.014	29.563	—0.011	Variable	253	86.2	7th	71.8	8, 11	82.8	72.4	77.7	
		Lohardaga	27.492	29.550	—0.013	SW	245	85.0	6th	70.4	6, 9	81.3	71.2	76.3	
		Singbhum	28.845	29.550	—0.001	Variable	45	91.4	6th	74.2	10th	87.4	76.3	81.9	
ASAM.	Sibsagar	Sibsagar	29.394	29.684	+0.035	Variable	196	91.1	7th	73.5	8th	84.2	76.1	80.2	
		Goalpara	29.537	29.600	—0.004	Variable	196	86.7	7th	74.8	10th	81.3	76.8	79.4	
		Cachar	29.618	29.674	+0.021	Calm	—	91.5	7 & 8th	74.8	11th	86.3	76.7	81.6*	

\* Mean of 6 days.

**Explanation.—Summary.**—The normal means of air pressure and temperature are the arithmetical average or means of the reading during the same period. The humidity of the atmosphere is expressed at percentage, saturated air being presented by 100. A clear sky is denoted by 0 and an overcast sky by 61. The normal mean are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional stations district, i. e., from total rainfall at the subdivisional stations in the district reading in returns divided by the number of stations. A rainy day is one of

for the week ending Saturday, the 12th of August 1893.

DISTRICT OBSERVATIONS.										DISTRICT.					
Variation from normal mean.	Mean 8 A.M. temperature.	Average humidity at 8 A.M.	Average cloud amount at 8 A.M.	Rainfall of week at observing station.	OF WEEK.			RAINFALL.							
					Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Since 1st of month.			Since 16th May 1893.			
									Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.	
-	81.8	88	7.7	4.20		2.85		3.38		5.06			26.87		Puri.
-2.2	80.6	88	5.1	0.90											
+0.4	81.6	88	8.8	1.55											
-1.7	81.8	81	8.0	3.17		2.73		3.41		4.51			28.17		
-1.2	80.5	90	5.7	4.83		2.52		3.77		5.11			28.58		Outlack.
-1.1	80.8	87	7.7	2.03	1.75	3.31	3.73	3.00	4.27	6.26	-1.99	47.39	30.51	+16.88	Salasore.
-0.4	81.0	80	9.7	2.47	3.55	3.16	3.71	4.10	5.98	5.44	+0.54	46.39	30.89	+15.50	Midnapore.
-0.8	82.0	90	10.0	5.03											24-Parganas.
					1.80	2.94	4.00	4.35	2.89	5.78	-2.79	44.74	30.01	+14.73	
					3.01	3.37	4.33	4.47	5.46	6.00	-0.54	44.57	29.88	+14.69	
+0.4	81.1	86	9.0	3.26	2.56	2.01	4.20	3.53	4.13	4.72	-0.59	42.40	27.72	+14.74	
-1.0	81.1	91	8.6	3.57	8.81	3.14	5.67	3.07	10.40	5.64	+4.76	54.09	34.01	+20.08	Howrah.
-1.0	80.4	87	0.0	2.00	3.02	2.93	4.40	3.07	5.23	6.20	+0.03	37.88	29.94	+7.94	Hooghly.
-0.6	79.5	80	3.4	1.64	2.22	3.10	4.50	3.81	3.89	5.27	-1.38	40.44	27.28	+13.16	Nadia.
-0.8	79.5	92	8.9	2.44	2.37	3.42	3.75	4.11	5.11	6.17	-1.06	44.18	31.58	+12.65	Bankura.
-0.0	80.2	92	0.0	3.17	1.27	2.85	4.33	4.40	3.15	5.57	-2.42	35.96	30.83	+5.63	Birbhum.
-1.8	79.4	94	9.9	7.34	2.73	2.85	4.17	3.74	5.75	5.32	+0.43	44.95	27.93	+17.02	Murshidabad.
-1.5	80.4	91	8.7	4.60	6.63	2.00	5.50	3.30	7.79	4.80	+3.19	54.06	29.37	+25.59	Fabna.
-1.0	81.5	90	8.1	4.50	5.00	2.09	5.50	3.51	6.30	4.53	+1.77	42.06	34.15	+8.81	Bogra.
-	81.3	92	8.1	5.76	4.03	2.56	4.33	3.84	5.84	4.00	+0.84	46.09	30.30	+15.59	Rajshahi.
-1.1	79.5	93	9.9	7.97	5.17	2.42	4.00	3.38	5.85	4.90	+0.95	37.74	30.97	+6.77	Malda.
-1.4	78.8	94	5.6	8.18	5.70	2.75	3.80	3.70	6.47	4.00	+1.87	47.26	34.09	+13.17	Dinajpur.
-0.1	78.6	98	8.7	14.11	4.75	2.09	4.75	3.36	9.17	4.50	+4.67	60.72	46.72	+14.00	Rangpur.
-1.0	80.3	98	0.6	14.38	14.11	6.84	5.00	4.55	16.86	9.86	7.00	81.50	72.19	+9.31	Jalpaiguri.
				9.17	0.33	4.75		4.83	9.73	9.08	+0.71	80.17	69.10	+11.07	Kuch Bihar.
					7.79			5.59		11.85			81.79		Darjeeling.
-0.5	79.3	91	7.9	7.74	6.85	6.04	4.00	4.60	14.43	11.20	+3.25	110.44	74.05	+35.49	Sikkim.
					5.83	4.43	7.00	4.85	8.39	8.95	-0.56	77.84	50.11	+27.73	Onitawong.
-0.8	80.8	90	9.0	5.72	4.03	4.03	5.75	4.83	6.89	6.99	+1.90	64.28	47.30	+16.98	Chittagong Hill
-0.4	80.7	92	6.1	11.16	16.20	7.37	6.00	5.20	19.29	11.71	+7.68	88.28	65.86	+22.42	Tricuta.
-1.5	80.5	92	8.1	5.55	5.42	2.80	5.33	3.76	6.75	5.42	+1.33	49.53	33.41	+16.11	Baokergunge.
-1.6	80.5	92	0.1	10.00		3.33		4.32		6.42			36.83		Noakhali.
-0.3	80.3	94	8.0	8.23	8.50	3.84	5.50	4.51	9.04	6.89	+2.16	54.00	40.86	+13.14	Faridpur.
-2.1	79.2	94	9.0	7.93	9.05	3.33	6.40	4.18	11.33	5.08	+5.65	66.16	41.04	+25.12	Daoca.
-1.0	81.1	90	6.0	5.43	8.04	3.95	4.67	4.00	10.13	5.05	+4.18	52.61	37.45	+15.06	Tippura.
-1.4	81.5	88	8.6	4.00	5.98	3.01	4.75	3.69	6.91	4.83	+2.03	34.05	25.65	+8.40	Mymensingh.
-1.8	80.2	91	8.1	7.57	7.19	2.03	5.33	3.28	7.90	4.30	+3.60		24.85		Purnea.
-	80.0	92	7.7	4.23	5.07	2.02	5.33	2.72	5.92	4.39	+1.53	30.20	24.38	+5.82	Bhagalpur.
-0.8	80.4	88	8.0	8.18		3.40		3.14		5.28			26.14		Darbhanga.
-1.0	80.7	91	0.4	3.33	4.70	2.83	4.07	2.91	5.54	4.40	+1.14	25.08	23.89	+1.19	Muzaffarpur.
-1.1	80.4	88	5.4	2.84											Champanan.
-1.5	80.4	88	8.7	5.15		2.69		3.15		4.82			22.06		Saran.
-0.6	80.3	88	5.0	4.71											Shahabad.
-1.1	80.4	86	6.6	2.86	3.40	2.94	5.00	3.37	4.53	5.16	-0.63		23.99		Gaya.
-1.8	81.4	86	9.6	4.35	4.80	2.80	4.50	3.04	5.61	4.43	+1.18	30.98	23.81	+7.17	Patna.
					4.88	2.78	5.00	3.28	5.94	4.82	+1.12	31.40	24.45	+7.04	Monkbyr.
-0.8	80.1	87	7.0	5.46	4.51	2.96	5.00	3.78	7.42	5.00	+2.42	42.42	28.83	+13.59	Sonthal Parganas.
-0.8	75.5	87	10.0	3.05		3.00		4.31		5.61			28.03		Hazaribagh.
-1.6	74.3	91	7.6	4.90	5.05	3.20	4.50	4.69	8.85	6.25	+2.60		29.33		Lohardaga.
					5.11			5.70		5.12			24.62		Rainau.
-0.0	78.8	88	9.0	3.63	3.53	4.00	5.00	4.20	6.21	6.83	-0.62	39.18	31.73	+7.45	Singbham.
-3.4	77.5	98	9.7	4.27	3.21	3.42	5.20	4.15	5.95	6.05	-0.10	47.28	27.54	+19.74	Manbham.
-2.4	78.1	96	10.0	8.07											Assam.
-1.1	78.5	98	9.7	4.96											

for the last ten years. The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater. The numbers denoting cloud amount represents the part of the sky covered the whole sky being denoted by 10. Under the head District observations of for the period in question during the past ten years. The means of the district are the numerical average of the rainfall returned received in the which at least a tenth of an inch fall.









**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSER-  
VATIONS TAKEN IN ASSAM, FOR THE WEEK ENDING 8 A.M.,  
SATURDAY, THE 12TH OF AUGUST 1893.**

At the beginning of the week rainfall was very partial, except in South Bihar, Chota Nagpur and part of East Bengal. Though rain was general in these districts, only a few stations, chiefly in the west of the province, reported falls of any importance. A low pressure area was beginning to develop, and pressure changes were relatively large, as there was a brisk rise in Bihar, North Bengal and Assam, and a fall generally slow over the Bay. The fall continued with greater rapidity in the north-west angle on Monday, the 7th, and the depression became better defined with its centre between False Point and Saugor Island. The cyclonic circulation was almost complete, and gradients were steep over the Bay. The depression moving to the north-west was over Chota Nagpur on Tuesday, and as on that day a brisk rise of pressure had commenced in Burmah and the south-east of the Bay, while there was a brisk fall in Chota Nagpur, gradients were much steeper both over the Bay and over Bengal. This distribution of pressure led to strong winds, especially near the head of the Bay, and to general rainfall, which was not heavy in Lower Bengal, but became very heavy in the northern districts. The wave of rising pressure, which was advancing from the south-east, caused very large changes in the north of the Bay and Lower Bengal on Wednesday, the 9th; and as there were only very small changes in North Bengal and North Bihar, this had the effect of forcing the steep gradients northwards over Bengal, while in the south-east of the Bay the distribution became very uniform. Velocity in the north-west angle of the Bay was then about 40 miles an hour; and as the rising pressure was in some way checked, the gradients remained steeper than usual for several days, and the high winds moderated very gradually.

The full effect of the strong monsoon which had developed in the Bay then became felt in Bengal. The trough of low pressure had been forced close up to the hills by the rapid rise on the 9th, and westerly winds began in all districts. This arrangement has been very frequent during the past few weeks, and as on previous occasions it led to very heavy rain first in East Bengal, but chiefly in North Bengal and North Bihar. A slow to brisk fall of pressure that followed the above-mentioned rapid rise kept readings low in the northern districts, and though there was a tendency to recover at the end of the week, gradients were still much steeper over Bengal than usual. During the last three days of the week there was little change in the south of the Bay, light to moderate westerly winds prevailed with very little rain, and in the north-west angle the wind was gradually moderating, while rainfall had almost entirely ceased in the adjacent districts.

*Pressure.*—As stated above pressure changes have been comparatively large, leading at first to the formation of the shallow depression in the north-west of the Bay, and then to the very steep gradients over the Bay in the early part of the week and over Bengal during the latter half. Mean pressure for the week differs very little from the normal.

*Temperature.*—While the depression was forming and the sky was moderately clear, temperature was above the normal in all districts, but after it moved to the north-west, and strong moisture laden winds became general over the province, there was a rapid fall which led to a uniform defect of about  $8^{\circ}$ , on Wednesday, the 9th. Cool weather then continued till the end of the week. Temperature, however, was beginning to rise in Lower Bengal, and as heavy rain fell daily in the northern districts, defect increased, in some places to  $5^{\circ}$  or more. Mean defect for the larger divisions varies from  $0^{\circ}8$  in South-West Bengal to  $2^{\circ}2$  in Assam.

*Rainfall.*—As stated above general rain has fallen except during the first two days in nearly all districts, and again towards the end of the week in Orissa, Chota Nagpur and part of South-West Bengal. The falls during the last three days were unusually heavy in East and North Bengal and North Bihar. This is shown by the average fall in these districts being double the normal. In North Bengal the fall is 6.9 inches as compared with a normal fall of 3.45, in East Bengal 7.81 as compared with 4.09, and in North Bihar 6.42 as compared with 3.13. In South Bihar there is a smaller excess of 1.53 inches, but in the other districts there is a deficiency, very slight in South-West Bengal and only a third of an inch in Orissa and Chota Nagpur.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 12th of August 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.							RAINFALL.									
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.		Since 16th May 1893.		
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.	
Orissa	...	90°0	72°3	86°3	78°0	82°2	-1°5	2°40	2°08	-0°28	3°50	3°54	+0°26	4°20	4°91	33°55	37°99
South-West Bengal	...	92°7	75°6	87°3	78°0	82°7	-0°8	3°05	3°08	-0°03	4°11	4°00	+0°11	5°19	5°51	42°96	39°85
North Bengal	...	91°3	74°1	84°5	76°8	81°5	-1°2	6°80	3°45	+3°45	4°60	3°71	+0°89	7°80	5°51	53°16	42°18
East Bengal	...	89°0	74°1	84°7	76°9	80°8	-0°8	7°51	4°08	+3°72	5°00	4°46	+1°14	9°91	7°22	62°36	45°98
North Bihar	...	93°2	74°9	87°2	78°1	83°7	-1°3	6°42	3°13	+3°29	5°11	3°28	+1°83	7°47	4°54	35°97	37°29
South Bihar	...	92°4	75°7	87°7	77°7	82°8	-1°2	4°37	2°84	+1°53	5°04	3°36	+1°08	5°75	4°86	32°23	24°83
Chota Nagpur	...	91°4	70°4	83°8	73°3	78°6	-1°1	2°95	3°25	-0°30	4°00	4°23	-0°23	5°76	5°87	39°58	38°63
Assam	...	91°5	73°5	83°7	76°5	80°4	-2°2										

\* Daltonganj not included.

METEOROLOGICAL OFFICE, BENGAL, C. LITTLE,  
The 15th August 1893. for Meteorological Reporter to the Govt. of Bengal.

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 6th to 12th August 1893.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.						HYGROMETRY.			Rainfall, past 24 hours
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
Aug.	6th	29°565	83°6	89°0	10°9	78°1	85°9	82°0	1°040	80°4	84	0°25
"	7th	540	84°2	90°0	11°3	78°4	84°6	80°5	°887	78°8	83	0°19
"	8th	548	80°2	82°9	5°5	77°4	80°8	79°5	°992	79°0	93	0°92
"	9th	681	80°9	85°9	10°1	75°8	82°6	79°5	°968	78°2	87	0°31
"	10th	718	84°1	88°5	8°9	79°6	85°8	81°5	1°021	79°8	84	...
"	11th	684	83°7	88°5	9°7	78°8	85°2	81°3	1°014	79°7	83	0°18
"	12th	712	83°4	89°0	11°2	77°8	84°6	80°5	°986	78°8	83	...

The mean 10 A.M. pressure of the seven days ... .. Inches.  
29°633

The mean temperature of the seven days ... .. 82°9

The extreme variation of temperature ... .. 14°2

The maximum temperature ... .. 90°0

The mean 10 A.M. relative humidity of the seven days ... .. %  
85

The total fall of rain from 6th to 12th August 1893 ... .. Inches.  
2°35

The daily mean temperatures are the crude means of maximum and minimum temperatures.

J. H. GILLILAND,  
For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA.  
The 14th August 1893.

**Results of the Meteorological Observations taken at the Alipore Observatory from  
6th to 12th August 1893.**

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
		°		Inches.	°	°	°	°	°	Inches	°	%			Inches.	
Augst	6th	149.8	5.0	29.524	82.6	87.5	9.3	78.2	80.1	0.995	79.1	89	SW and SSE ...	70	0.56	Partially cloudy, o, g, d, p.
"	7th	148.3	7.1	.492	83.1	88.0	9.5	78.5	79.7	.971	78.3	86	SSE and E by S	185	0.13	Partially cloudy, o, p.
"	8th	122.5	Nil	.523	80.7	82.5	5.1	77.4	78.2	.934	77.2	89	SSE and SSW ...	195	0.99	Cloudy, o, g, d, p.
"	9th	113.5	"	.646	81.5	84.6	8.2	76.4	78.9	.953	77.8	89	SSW and SW by S	272	0.68	Cloudy, o, g, d, p.
"	10th	150.5	2.2	.662	82.3	87.4	8.2	79.2	79.1	.955	77.8	86	SSW and SW ...	278	0.11	Chiefly cloudy, o, g, d, p.
"	11th	137.1	0.1	.618	83.1	86.7	8.2	78.5	79.7	.971	78.3	86	SW and SW by W	202	Nil	Cloudy, o.
"	12th	146.5	1.3	.650	83.3	87.6	8.6	79.0	79.3	.950	77.7	83	SW, SW by W and SW by S.	150	"	Chiefly cloudy, o.

The mean pressure of the seven days ...	...	...	...	Inches.
The average pressure of the corresponding period for 24 years, Surveyor-General's Office ...	...	...	...	29.588
The total number of hours of bright sunshine ...	...	...	...	Hours.
The maximum possible number of hours of sunshine ...	...	...	...	15.7
The mean temperature of the seven days ...	...	...	...	82.4
The average temperature of the corresponding period for 24 years, Surveyor-General's Office ...	...	...	...	83.2
The extreme variation of temperature ...	...	...	...	11.6
The maximum temperature ...	...	...	...	88.0
The highest velocity of the wind in one hour ...	...	...	...	Miles.
The highest pressure of wind on one square foot ...	...	...	...	19
The mean relative humidity ...	...	...	...	lbs.
The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office ...	...	...	...	?
The total fall of rain from 6th to 12th August 1893 ...	...	...	...	%
The average fall of the corresponding period for 24 years, Surveyor-General's Office ...	...	...	...	87
The total fall from 1st January to 12th August 1893 ...	...	...	...	86
The average fall of the corresponding period for 24 years, Surveyor-General's Office ...	...	...	...	Inches.
The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph.	...	...	...	2.47
The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.	...	...	...	2.88
The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.	...	...	...	64.13
The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.	...	...	...	39.88
The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.	...	...	...	
The mouth of the rain-gauge is one foot above the ground.	...	...	...	
o, overcast ; g, gloomy ; d, drizzling rain ; p, passing temporary showers.	...	...	...	

**IRRIGATION DEPARTMENT, BENGAL.**  
**IRRIGATION OPERATIONS FOR THE OFFICIAL YEAR 1893-94.**  
*Areas leased for irrigation up to end of June 1893.*

CIRCLE.	District.	Canal.	DETAILS OF AREAS LEASED.										Rainfall, 1892-93.		REMARKS.		
			Estimated full discharge.	Average discharge " in month.	Discharge utilised.	Approximate area of land irrigated during the year up to the end of the month.	Approximate area of land under irrigation up to the same date last year.	Annual leases.					Rainfall, 1893-94.				
								Five years, all crops.	Five years, kharif.	Rabi.	Sugar-cane.	Bhadol.	Hot-weather.	Total.		GRAND TOTAL.	During end of month.	Up to end of month.
			C. ft.	C. ft.	C. ft.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Inches.	Inches.	Inches.		
ORISSA	Cuttack	Taldanda, 1st reach	1,342	116	116	...	...	2,479	...	113	...	...	540	4210	2,592	690	
		Ditto, 2nd "	585	116	...	...	...	2,700	...	10	...	...	540	4020	2,710	851	
		Madgaon "	766	...	...	...	...	25,596	...	...	...	...	540	4050	25,596	755	
		Kendrapara "	1,067	226	138	1	92	...	...	...	...	...	540	4175	...	948	
		Gobri "	372-32	64	37	40	52	769	...	...	...	...	540	4630	769	1088	
		Do. Extension	646	68	28-58	9	27	775	...	...	...	...	540	4145	775	No gauge.	
		Pattamundi	885	93	27	11	57	2,400	...	...	...	...	540	4145	2,400	10-11 gauge.	
		High Level, Range I	698	235-26	...	...	359	868	...	...	...	...	540	3302	868	10-36	
		Ditto, ditto II	727-15	85-0	...	42	1,196	298	...	42	...	...	540	3302	298	11-73	
		Jajpur Canal	700	...	...	...	727	1,381	...	...	...	...	540	3302	1,381	...	
Balsore	High Level, Range III	727-15	87-50	...	116	...	12,496	...	...	...	110	...	976	2476	12,175	15-37	
		Total	...	...	...	219	2,599	43,313	...	155	123	...	281	...	49,394	...	
SOUTH-WEST. BENG.	Midnapore	Total of the corresponding period of last year	...	...	...	...	...	152,091	...	28	168	...	...	...	152,287	...	
		Midnapore "	1,411	10	...	...	10,067	45,399	...	...	...	...	...	2070	3504	45,399	6-38
		Panchkura "	825	15	...	...	1,519	6,546	...	...	...	...	...	1397	2993	6,546	2-30
		Tidal Reaches, Ranges I & II	...	...	...	...	...	753	...	...	...	...	...	...	...	753	...
		Total	...	...	...	...	11,576	65,908	...	...	...	...	...	...	65,908	...	
		Total of the corresponding period of last year	...	...	...	...	...	69,574	...	...	...	...	...	979	2131	69,574	...
		Western Main	4,342	1,031	11	5,732	9,787	19,397	...	424	...	...	...	636	831	19,831	5-47
		Buxar "	1,256	112	110	14,567	47,705	48,391	...	1,659	...	...	...	636	831	50,250	5-32
		Arrah "	2,060	730	597	31,747	80,458	109,500	...	9,193	...	...	...	636	1223	119,631	4-42
		Total	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
SOUTH	Patna and Gaya.	Eastern Main	1,466	421	1-8	630	...	2,095	...	33	...	...	...	1187	1598	2,136	6-10
		Patna "	...	...	...	19,021	189	84,187	...	2,598	...	...	...	...	...	84,685	...
		Total	...	...	...	77,827	142,079	235,673	...	13,051	...	...	...	...	250,523	...	
		Total of the corresponding period of last year	...	...	...	...	...	190,235	...	45	...	...	...	12,239	...	212,579	...
		Grand Total	...	...	...	78,046	156,252	235,673	...	155	126	...	13,051	...	356,025	...	
		Grand Total of the corresponding period of last year	...	...	...	...	...	190,235	...	28	169	...	12,239	...	212,579	...	
		Grand Total of the corresponding period of last year	...	...	...	...	...	231,065	...	45	...	...	12,239	...	231,065	...	
		Grand Total of the corresponding period of last year	...	...	...	...	...	231,065	...	45	...	...	12,239	...	231,065	...	
		Grand Total of the corresponding period of last year	...	...	...	...	...	231,065	...	45	...	...	12,239	...	231,065	...	
		Grand Total of the corresponding period of last year	...	...	...	...	...	231,065	...	45	...	...	12,239	...	231,065	...	

\* This figure, which includes a precise proportion of five year leases, has been arrived at this year by a calculation differing from that of last year.

G. C. MACONCHY,  
*Under-Secy. to the Govt. of Bengal.*

CALCUTTA,  
*The 15th August 1893.*

IRRIGATION DEPARTMENT, —BENGAL.

Statement showing heights over mean sea-level and low-water in the Rivers Ganges, Bhagirathi, Jalangi, and Brahmaputra, for the month of July 1893.

Date.	RIVER GANGES.										RIVER BHAGIRATHI.	RIVER JALANGI.	RIVER BRAHMAPUTRA.
	Mirzapur.	Benares.	Buxar.	Dinapore.	Monghyr.	Subhasaj.	Rampur Boalia.	Goalundo.	Behampore.	Sarungaj.	Gowhaty.		
	From Allahabad ... 66	From Allahabad ... 134	From Benares ... 48	From Benares ... 177	From Benares ... 287	From Benares ... 361	From Monghyr ... 94	From Benares ... 471	From Subhasaj ... 90	From Benares ... 691	From Benares ... 120		
Distance.	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.
1st	19.35	225.55	16.50	182.05	139.25	125.50	80.50	11.75	57.75	11.83	23.77	10.25	168.46
2nd	21.17	227.37	16.35	183.23	138.08	124.83	83.43	11.50	65.51	13.17	24.11	10.38	168.75
3rd	20.30	226.72	17.67	184.72	137.23	123.55	85.95	10.95	63.08	13.58	25.53	10.53	169.46
4th	21.92	228.14	17.83	185.54	136.35	122.43	87.92	10.75	60.40	14.18	26.93	10.73	170.16
5th	21.62	228.05	19.25	186.30	135.35	121.43	89.50	10.00	59.25	14.78	28.33	10.93	170.86
6th	25.42	231.61	21.32	189.47	134.43	120.43	91.50	10.00	57.75	15.38	29.73	11.13	171.56
7th	25.42	231.61	21.32	189.47	134.43	120.43	91.50	10.00	57.75	15.38	29.73	11.13	172.26
8th	21.43	229.05	20.50	188.97	133.75	119.75	87.75	10.00	56.25	15.98	31.13	11.33	172.96
9th	21.43	229.05	20.50	188.97	133.75	119.75	87.75	10.00	56.25	15.98	31.13	11.33	173.66
10th	23.85	230.05	21.93	189.98	132.75	118.75	85.75	10.00	54.75	16.58	32.53	11.53	174.36
11th	24.58	230.05	21.93	189.98	132.75	118.75	85.75	10.00	54.75	16.58	32.53	11.53	175.06
12th	23.85	230.05	21.93	189.98	132.75	118.75	85.75	10.00	54.75	16.58	32.53	11.53	175.76
13th	23.85	230.05	21.93	189.98	132.75	118.75	85.75	10.00	54.75	16.58	32.53	11.53	176.46
14th	23.85	230.05	21.93	189.98	132.75	118.75	85.75	10.00	54.75	16.58	32.53	11.53	177.16
15th	23.85	230.05	21.93	189.98	132.75	118.75	85.75	10.00	54.75	16.58	32.53	11.53	177.86
16th	23.85	230.05	21.93	189.98	132.75	118.75	85.75	10.00	54.75	16.58	32.53	11.53	178.56
17th	23.85	230.05	21.93	189.98	132.75	118.75	85.75	10.00	54.75	16.58	32.53	11.53	179.26
18th	23.85	230.05	21.93	189.98	132.75	118.75	85.75	10.00	54.75	16.58	32.53	11.53	179.96
19th	23.85	230.05	21.93	189.98	132.75	118.75	85.75	10.00	54.75	16.58	32.53	11.53	180.66
20th	23.85	230.05	21.93	189.98	132.75	118.75	85.75	10.00	54.75	16.58	32.53	11.53	181.36
21st	23.85	230.05	21.93	189.98	132.75	118.75	85.75	10.00	54.75	16.58	32.53	11.53	182.06
22nd	23.85	230.05	21.93	189.98	132.75	118.75	85.75	10.00	54.75	16.58	32.53	11.53	182.76
23rd	23.85	230.05	21.93	189.98	132.75	118.75	85.75	10.00	54.75	16.58	32.53	11.53	183.46
24th	23.85	230.05	21.93	189.98	132.75	118.75	85.75	10.00	54.75	16.58	32.53	11.53	184.16
25th	23.85	230.05	21.93	189.98	132.75	118.75	85.75	10.00	54.75	16.58	32.53	11.53	184.86
26th	23.85	230.05	21.93	189.98	132.75	118.75	85.75	10.00	54.75	16.58	32.53	11.53	185.56
27th	23.85	230.05	21.93	189.98	132.75	118.75	85.75	10.00	54.75	16.58	32.53	11.53	186.26
28th	23.85	230.05	21.93	189.98	132.75	118.75	85.75	10.00	54.75	16.58	32.53	11.53	186.96
29th	23.85	230.05	21.93	189.98	132.75	118.75	85.75	10.00	54.75	16.58	32.53	11.53	187.66
30th	23.85	230.05	21.93	189.98	132.75	118.75	85.75	10.00	54.75	16.58	32.53	11.53	188.36
31st	23.85	230.05	21.93	189.98	132.75	118.75	85.75	10.00	54.75	16.58	32.53	11.53	189.06

G. C. MACONCHY,  
Under-Secy. to the Govt. of Bengal.

CALCUTTA,  
The 15th August 1893.

CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 5th August 1893,  
as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 5TH AUGUST 1893.			WEEK ENDING SATURDAY, THE 5TH AUGUST 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ...	278	67,775	907	129	40,635	646
Jute ...	32	17,350	263	20	3,390	67
Firewood ...	130	74,925	1,110	116	67,000	985
Other articles ...	774	1,88,675	2,605	651	1,96,640	2,594
Total ...	1,214	3,48,725	4,885	916	3,07,665	4,292

CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 12th August 1893,  
as compared with the corresponding week of the previous year*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 12TH AUGUST 1893.			WEEK ENDING SATURDAY, THE 13TH AUGUST 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ...	278	72,210	780	155	44,875	639
Jute ...	13	5,675	97	34	10,250	206
Firewood ...	75	48,920	735	148	73,000	1,074
Other articles ...	606	1,20,426	1,663	869	2,34,725	3,222
Total ...	872	2,47,231	3,275	1,206	3,62,850	5,141

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 5th August 1893, on 1,610½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	286,026	Rs. A. P. 3,58,025 10 0	Mds. S. 22,33,601 10	Rs. A. P. 4,40,488 2 0	Rs. A. P. 15,347 1 0	Rs. A. P. 8,28,460 13 0	78,899	89,255	167,954
Or per mile of railway ...	...	222 10 10	...	270 1 7	9 8 0	511 4 11	...	...	...
For previous 4½ weeks of half-year ...	1,208,616	12,54,772 1 0	82,09,832 0	18,06,462 11 0	71,240 6 0	82,24,475 2 0	313,940½	302,759	706,708½
Total for 5½ weeks ...	1,495,542	16,17,597 11 0	1,04,43,133 10	23,35,950 13 0	80,587 7 0	40,40,935 15 0	362,644½	482,014	871,662½
COMPARISON.									
Total for corresponding week of previous year ...	253,457½	2,21,943 3 11	19,06,628 0	4,39,646 2 10	16,500 7 0	4,78,080 14 3	73,536	86,040	159,576
Per mile of railway corresponding week of previous year ...	...	137 12 11	...	272 15 10	10 3 11	421 0 8	...	...	...
Total for corresponding 5½ weeks of previous year ...	1,343,065	12,50,632 0 4	1,15,50,871 20	24,98,437 8 7	85,134 12 7	28,31,204 8 0	385,887	491,561	877,448

\* Increase is chiefly due to return of pilgrims from Puri.

## TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 5th August 1893, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	17,013	Rs. A. P. 4,816 12 0	Mds. S. 3,539 10	Rs. A. P. 162 13 0	Rs. A. P. 10 0 0	Rs. A. P. 4,980 0 0	890	93	983
Or per mile of railway ...	...	216 7 9	...	7 5 1	0 7 2	224 4 0	...	...	...
For previous 4½ weeks of half-year ...	74,782	17,727 5 0	34,115 0	956 3 0	43 0 0	18,732 8 0	3,743	327	4,070
Total for 5½ weeks ...	92,405	22,544 1 0	37,972 10	1,119 0 0	50 0 0	23,792 1 0	4,642	420	5,062
COMPARISON.									
Total for corresponding week of previous year ...	17,338	4,477 13 5	5,054 20	225 10 0	5 12 0	4,709 3 5	897	71	968
Per mile of railway corresponding week of previous year ...	...	201 4 0	...	10 2 3	0 4 2	211 10 5	...	...	...
Total for corresponding 5½ weeks of previous year ...	111,193	26,869 12 10	31,717 0	1,390 4 0	43 11 0	28,203 11 10	4,002	312	5,214

## DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for week ended 5th August 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	24,988	Rs. A. P. 18,185 2 0	Mds. S. 35,484 0	Rs. A. P. 7,580 7 0	Rs. A. P. 39 0 0	Rs. A. P. 25,804 9 0	6,085	3,053½	9,140½
Or per mile of railway ...	...	112 10 9	...	46 15 6	0 3 10	159 14 1	...	...	...
For previous 4½ weeks of half-year ...	84,394	54,795 11 0	1,45,608 30	23,900 9 0	160 0 0	78,805 4 0	25,140	11,102	36,251
Total for 5½ weeks ...	109,382	72,980 13 0	1,81,086 30	31,490 0 0	199 0 0	1,04,609 13 0	31,234	14,157½	45,391½
COMPARISON.									
Total for corresponding week of previous year ...	18,157	11,918 6 5	20,966 30	4,224 3 0	44 11 6	16,187 4 11	6,904	2,301	8,905
Per mile of railway corresponding week of previous year ...	...	73 13 6	...	26 2 9	0 4 5	100 4 8	...	...	...
Total for corresponding 5½ weeks of previous year ...	90,921	62,402 10 10	2,24,941 0	33,386 11 6	220 8 6	96,009 14 10	24,018	13,680	47,698

\* Increase is due to pilgrims to and from Hurdwar.

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K.-D., AND ASSAM-BIHAR SECTIONS.)

*Approximate Return of Traffic for the week ended 5th August 1893, on 777 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	109,710	76,420 0 0	6,42,729 0	1,41,940 0 0	12,100 0 0	2,30,460 0 0	28,100	27,003	55,708
Or per mile of railway ...	257	98 0 0	827 0	183 0 0	*2 0 0	*283 0 0	.....	.....	.....
For previous 5 weeks of half-year ...	702,800	2,93,010 0 0	22,24,410 0	3,85,000 0 0	58,910 0 0	7,37,010 0 0	114,751	99,740	214,500
Total for 5 weeks ...	902,510	3,69,430 0 0	28,67,130 0	5,27,030 0 0	71,010 0 0	9,67,470 0 0	142,851	127,352	270,203
COMPARISON.									
Total for corresponding week of previous year ...	174,854	59,215 0 0	5,95,476 0	1,54,219 0 0	10,498 0 0	2,23,032 0 0	21,805	53,391	58,196
Per mile of railway corresponding week of previous year ...	225	76 0 0	760 0	198 0 0	*1 0 0	*275 0 0	.....	.....	.....
Total to corresponding date of previous year ...	817,891	3,23,562 0 0	26,59,554 0	5,66,508 0 0	82,830 0 0	9,72,900 0 0	140,741	159,810	300,557

\* Excluding steamer earnings.

## BENGAL CENTRAL RAILWAY.

*Approximate Return of Traffic for the week ended 5th August 1893, on 125 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	36,080	11,270 0 0	41,390 0	3,860 0 0	60 0 0	15,130 0 0	3,346	2,336	5,672
Or per mile of railway ...	293	90 0 0	331 0	30 0 0	1 0 0	121 0 0	.....	.....	.....
For previous 4 weeks of half-year ...	137,510	43,400 0 0	1,67,360 0	11,520 0 0	300 0 0	55,500 0 0	10,546	6,991	23,537
Total for 5 weeks ...	174,190	54,790 0 0	2,08,750 0	15,320 0 0	450 0 0	70,540 0 0	19,892	9,317	29,209
COMPARISON.									
Total for corresponding week of previous year ...	34,122	9,711 0 0	35,706 0	3,023 0 0	57 0 0	12,791 0 0	3,346	2,326	5,672
Per mile of railway corresponding week of previous year ...	276	78 0 0	286 0	24 0 0	...	102 0 0	.....	.....	.....
Total to corresponding date of previous year ...	164,746	49,892 0 0	2,12,286 0	14,163 0 0	529 0 0	64,664 0 0	20,488	9,527	30,015

## DACCA STATE RAILWAY.

*Approximate Return of Traffic for the week ended 5th August 1893, on 86 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	16,300	4,620 0 0	16,060 0	710 0 0	470 0 0	5,800 0 0	2,487	737	3,224
Or per mile of railway ...	190	54 0 0	187 0	8 0 0	5 0 0	67 0 0	...	...	...
For previous 4 weeks of half-year ...	67,560	19,920 0 0	47,280 0	3,050 0 0	430 0 0	24,000 0 0	10,312	3,054	13,366
Total for 5 weeks ...	83,860	24,540 0 0	63,360 0	4,300 0 0	900 0 0	29,800 0 0	12,799	3,791	16,590
COMPARISON.									
Total for corresponding week of previous year ...	15,785	5,071 0 0	16,020 0	1,059 0 0	60 0 0	6,199 0 0	2,582	682	3,264
Per mile of railway corresponding week of previous year ...	184	59 0 0	180 0	12 0 0	1 0 0	72 0 0	...	...	...
Total to corresponding date of previous year ...	78,871	25,042 0 0	64,275 0	4,359 0 0	1,122 0 0	30,423 0 0	13,707	3,473	17,180



## BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIBHUT STATE RAILWAY.)

*Approximate Return of Traffic for the week ending 29th July 1893, on 756 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boats.	Total earnings	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs.	Mds.	Rs.	Rs.	Rs.			
total traffic for the period on 756 miles open	79,000	30,240	a 1,62,750	23,370	9,410	63,020	13,040	15,123	28,163
or per mile of railway	104.58	40.00	215.28	30.91	12.45	83.36	...	...	...
or previous 3½ weeks of half-year	280,540	1,16,850	8,50,770	1,26,170	37,220	2,60,340	40,690	60,051	81,041
Total for 4½ weeks	368,800	1,47,190	10,13,520	1,46,540	46,630	3,43,360	54,030	65,174	119,204
COMPARISON.									
total for corresponding period of previous year on 755 miles open	80,398	29,674	3,27,146	50,112	5,975	85,761	12,060	19,090	31,150
or mile of corresponding week of previous year	106.75	39.30	463.31	66.37	7.92	113.59	...	...	...
total to corresponding date of previous year	304,052	1,27,339	1,242,761	1,62,300	31,485	3,21,133	55,541	73,857	129,398

a The falling off in goods traffic is due to the Muharram festival and to the continuous rainfall during greater portion of the week.





# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, AUGUST 23, 1893.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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## RESOLUTION ON THE ANNUAL REPORT OF THE GOVERNMENT CINCHONA CULTIVATION AND CINCHONA FACTORY IN BENGAL FOR THE YEAR 1892-93.

### FINANCIAL DEPARTMENT—MISCELLANEOUS.

*Calcutta, the 18th August 1893.*

RESOLUTION No. 4014Mis.

READ—

The Annual Report on the Government Cinchona Cultivation and Cinchona Factory in Bengal for the year 1892-93.

Read again—

The corresponding report for the year 1891-92.

Unlike the two previous years, there was nothing abnormal in the climatic conditions of the year under review, and though the rainfall was slightly above the average, it was well distributed throughout the rainy season.

2. The policy of replacing the red bark trees which yield the cinchona febrifuge, by the *ledgeriana* and hybrid varieties, which yield quinine, was steadily adhered to. Two hundred thousand trees of the former kind were uprooted and not renewed, and 184,110 seedlings of the latter were put out in the plantation. The number of cinchona plants, including the nursery stock, at the Government plantations on the 1st April 1893 was 4,331,651. The crop of the year amounted to 304,390 lbs. of dry bark, of which 90,170 lbs. were of the kind known as *succirubra*, or red bark, 118,210 lbs. of the *ledgeriana*, 78,310 lbs. of hybrid, 15,900 lbs. of *verde* and *morada*, and 1,800 lbs. of *officinalis*. With the exception of 1,280½ lbs. of bark supplied on indent or sold to the public, the whole of this crop was as usual made over to the factory.

3. The outturn of the factory was 5,242 lbs. of sulphate of quinine and 3,481 lbs. of cinchona febrifuge, against 4,586 lbs. and 4,190 lbs. respectively in 1891-92. The proportion of the outturn of quinine to cinchona febrifuge is steadily on the increase every year, and there seems to be little doubt that in course of time the factory will be called upon to produce the former drug exclusively. The following statement compares the issues of the year with those of the preceding year:—

	1891-92.			1892-93.		
	Sulphate of quinine.	Cinchona febrifuge.	Total.	Sulphate of quinine.	Cinchona febrifuge.	Total.
	lbs. oz.	lbs. oz.	lbs. oz.	lbs. oz.	lbs. oz.	lbs. oz.
To Medical Depot, Calcutta	1,022 0	1,013 0	2,035 0	1,150 0	500 0	1,650 0
.. " " Mian Meer	712 0	842 0	1,554 0	1,270 0	500 0	1,770 0
.. Inspector-General of Civil Hospitals, Bengal.	3 8	306 4	309 12	...	200 8	200 8
.. Inspector-General of Jails, Bengal, for jails, &c.	20 4	80 0	100 4	6 12	52 4	59 0
.. Inspector-General of Jails, Bengal, for making into pice packets in Hazaribagh and Abpur Jails.	...	...	...	475 0	...	475 0
.. Surgeon-General with the Government of India.	...	...	...	...	2 0	2 0
.. Commissariat Department for Port Blair	...	...	...	50 0	...	50 0
Sold to Government officers	1,952 14	...	1,952 14	2,558 13 1/2	...	2,558 13 1/2
.. Ditto ditto and to general public.	...	2,457 12	2,457 12	...	2,390 14	2,390 14
Given as samples	3 2 1/2	26 12	29 14 1/2	7 10 1/2	1 6	9 0 1/2
Total	3,713 12 1/2	4,725 12	8,439 8 1/2	5,518 3 1/2	3,647 0	9,165 3 1/2

Dr. King explains that the quantity shown in the above statement as issued to the Inspector-General of Civil Hospitals, Bengal, during 1892-93 does not take into account 137 lbs. of quinine and 97 lbs. of cinchona febrifuge issued to dispensaries under District and Local Boards. These issues, which are paid for in cash, are, it is stated, included in the gross sales to public officers. Dr. King further explains, with reference to the enquiry made in last year's Resolution, that the medical depot at Bombay now takes its supply of the drugs from the Nilgiri Factory under the Government of Madras.

4. The revenue derived from the sale of sulphate of quinine, cinchona febrifuge, cinchona bark, and other products of the plantations, reached the sum of Rs. 1,17,767-15-6 against Rs. 1,09,321-12-9 in the previous year:—

	1892-93.			1891-92.		
	Rs.	A.	P.	Rs.	A.	P.
By sale of febrifuge, sulphate of quinine, &c.	65,454	5	6	60,713	7	3
By credit from the medical depôts and the Commissariat Department	43,305	0	0	44,363	5	6
By credit from the Inspector-General of Civil Hospitals, Bengal	2,005	0	0	3,118	8	0
By credit from the Inspector-General of Jails, Bengal	6,993	10	0	1,126	8	0
By credit from the Surgeon-General with the Government of India	20	0	0	...	...	...
Total	1,17,767	15	6	1,09,321	12	9

The net profit on the working of the estates amounts to Rs. 3,170-14-3, against Rs. 7,962-12-8 in 1891-92. This result may be considered quite sufficient, when it is remembered that in starting the cinchona plantations in this country, the Government, so far from aiming at a profit, desired only to secure for the people without loss to itself a cheap remedy for fever.

5. The scheme for the sale of pice-packets of quinine to the public, chiefly through the medium of the Postal Department, to which reference was made in last year's Resolution, was brought into operation during the year under review, and 475 lbs. were issued, to the Inspector-General of Jails, Bengal, to be made up into packets by convict labour. Dr. King remarks with justifiable satisfaction that "after thirty years of effort the end has now been attained which the Government set before itself when the growth of the medical cinchonas was begun in British India."

5. The thanks of Government are again due to Dr. King and Mr. Gammie for their efficient management of the Department during the year.

By order of the Lieutenant-Governor of Bengal,

J. A. BOURDILLON,

Offg. Secretary to the Government of Bengal.

ANNUAL REPORT ON THE GOVERNMENT CINCHONA PLANTATION AND  
FACTORY IN BENGAL FOR THE YEAR 1892-93.

No. 27C, dated Royal Botanic Garden, Sibpur, the 14th July 1893.

From—BRIGADE-SURGEON LIEUTENANT-COLONEL GEORGE KING, M.B., LL.D., C.I.E.,  
F.R.S., Superintendent, Royal Botanic Garden, Calcutta, and of Cinchona  
Cultivation in Bengal,

To—The Secretary to the Government of Bengal, Financial Department.

I HAVE the honour to forward herewith the annual report of the Cinchona  
Plantations and Factory for the year 1892-93.

*Thirty-first Annual Report of the Government Cinchona Plantation and Factory in  
British Sikkim, being that for the year 1892-93, by BRIGADE-SURGEON  
LIEUTENANT-COLONEL G. KING, M.B., LL.D., C.I.E., F.R.S., Superintendent  
of the Royal Botanic Garden, Calcutta, and of Cinchona Cultivation in  
Bengal.*

1. *Weather and general.*—The weather for the year under review presented no feature very worthy of remark. The rainfall on the plantation was 131.5 inches, being about 5 inches above the average. The fall was well distributed over the rainy season, and it was on no occasion so excessive within the limits of the cinchona reserve as to cause any landslips. But at the head of the valley, beyond the boundary of the plantation, there was a very heavy down-pour on one morning in June, which caused numerous landslips; and the fallen trees brought down by these into the Rungjo stream swept away two of the largest bridges. The health of the population of the cinchona valley was fairly good, and no epidemic disease prevailed during the year.

2. *Changes in the Plantation.*—During the year, 466,430 cinchona trees of various sorts were uprooted. This is an unusually large number for a single year. Many of them were, however, small and feeble plants which had been spared during the clearings of previous years with the view of giving them a chance of improving a little prior to up-rootal. The resulting bark crop therefore was small compared to the number of trees removed. The uprooted trees consisted of 200,000 red (or febrifuge-producing) barks, and of 266,430 of yellow (or quinine-producing) barks of various sorts. To compensate for these removals, there were planted out, during the year, 180,710 seedlings of yellow barks (*C. Ledgeriana*) and 3,400 of the sort known as *Hybrid*. The result of these changes is that, on the 1st April, the plantation contained a grand total of all sorts (including nursery stock) of 4,331,651 plants. No red barks whatever were propagated during the year, and the entire number of this sort now left on the plantation is reduced to a little over a million. This steady diminution of the red barks is in accordance with the policy of increasing only the kinds of trees from which quinine, unmixed with the inferior alkaloids, can be most easily extracted.

3. *The year's crop.*—This consisted of 304,390 pounds, of which about 90,000 pounds were red bark, collected almost in equal proportions from the Mungpoo and Sittong divisions. The remainder consisted of yellow bark, of which about 67,000 pounds were taken from the new plantation of Rungjung in Bhotan, and the rest from the plantations of Mungpoo and Sittong. The entire crop was, as usual, made over to the factory, with the exception of 1,280½ pounds supplied to the medical depôts and sold to the public.

4. *Plantation expenditure.*—The total budget allotment for the year was Rs. 67,888. As a matter of convenience the whole of the cost of the European establishment is debited by the Accountant-General to the plantation budget. The result of this is that the cost of production of the bark is unduly increased. As a matter of fact, the time of Messrs. Gammie, senior and junior, is spent as much in the factory as in the plantation, and it would be a fairer distribution

if the expenditure on their salaries were half charged to the plantation and half to the factory. The expenditure debited by the Accountant-General to the plantation (including the Messrs. Gammie's salaries) is as follows:—

	Rs.	A.	P.
Salaries of European establishment (including all salaries except that of Dr. King, Superintendent, Botanic Gardens, Calcutta), coolie labour, and office establishment	60,681	0	8
Keep of animals for plantations	900	0	0
Contingencies, including service postage stamps, &c.	5,925	2	11
Travelling allowance	298	12	0
Stores from England	845	3	9
Total	68,650	3	4

In return for this expenditure, 304,390 pounds of dry bark were taken as a crop for the year.

5. *Factory*.—The expenditure debited to the factory during the year was Rs. 36,696-12-5. This includes a considerable expenditure on alterations to the factory plant which were undertaken to secure economy of working in future. These are charges which would really be debitable to capital, were there a capital account. But there never has been a capital account for the factory, every charge for machinery and buildings having been hitherto treated as working expenditure and set against the outturn of the factory for the year. There was also an unusually large amount spent on the purchase of a stock of oil which it was necessary to buy in just as the financial year was ending. The bark actually worked up in the factory during the year was 85,580 pounds of red bark, from which 3,481½ pounds of cinchona febrifuge were produced; and 240,666 pounds of yellow bark, from which 5,242½ pounds of quinine were obtained. A large proportion of the bark thus used was the production of previous years, which was borne on the stock at an average value of annas 3 per pound. The total factory outturn of 8,723 pounds shows a decrease on that of 1891-92 of 53 pounds, and an increase of that of 1890-91 of 682 pounds.

6. *Sales of manufactured product*.—During the year quinine took the lead, no less than 5,518 pounds 3½ ounces having been disposed of; while of cinchona febrifuge, only 3,647 pounds were issued. The total quantity disposed of, viz., 9,165 pounds 3½ ounces, is the highest of any year since 1882-83; and the notable feature is the increase in the proportion of quinine to cinchona febrifuge. This is of course owing to the recent great diminution in price of quinine. And there appears to be little doubt that the proportion of quinine issued will go on increasing, and that, in a very few years hence, the plantation will be called on to produce that drug exclusively, and in much larger quantity than at present. The quantity issued to the Medical depôt at Calcutta was 1,150 pounds, as against 1,022 pounds supplied during the previous year. The indent for the Meean Meer Depôt was for 1,270 pounds, while during the previous year only 712 pounds were taken. Each of these depôts took 500 pounds of cinchona febrifuge, which, as against the supplies for 1891-92, shows a falling off of no less than 513 pounds for Calcutta and 342 pounds for Meean Meer. The Bombay Depôt indented for no supplies either of quinine or febrifuge. It is understood that Bombay now supplies itself from the cinchona factory of the Madras Government on the Nilgiri Hills. The total issues for the year under review and of those for 1891-92 are as follows:—

*Details of the distribution of Cinchona Febrifuge and Sulphate of Quinine during the financial years 1891 and 1892-93.*

		1891-92.	1892-93.
		lbs. oz.	lbs. oz.
To Medical Depôt, Calcutta—			
Cinchona febrifuge	...	1,013 0	500 0
Sulphate of quinine	...	1,022 0	1,150 0
To Medical Depôt, Mian Meer—			
Cinchona febrifuge	...	842 0	500 0
Sulphate of quinine	...	712 0	1,270 0

	1891-92.	1892-23.
	lbs. oz.	lbs. oz.
To Inspector-General of Civil Hospitals, Bengal (for district medical officers, Bengal)—		
Cinchona febrifuge ... ..	306 4	200 8
Sulphate of quinine ... ..	3 8	.....
To Inspector-General of Jails, Bengal (for jails and lock-ups in Bengal)—		
Cinchona febrifuge ... ..	80 0	52 4
Sulphate of quinine ... ..	20 4	6 12
To Inspector-General of Jails, Bengal (for making into pice packets in Hazaribagh and Alipore Jails)—		
Sulphate of quinine ... ..	.....	475 0
To Surgeon-General with the Government of India—		
Cinchona febrifuge ... ..	.....	2 0
To Commissariat Department for Port Blair—		
Sulphate of quinine ... ..	.....	50 0
Sold to Government officers—		
Sulphate of quinine ... ..	1,952 14	2,568 13½
Sold to Government officers and to the general public—		
Cinchona febrifuge ... ..	2,457 12	2,390 14
Given as samples—		
Cinchona febrifuge ... ..	26 12	1 6
Sulphate of quinine ... ..	3 2½	7 10½
Total ... ..	8,439 8½	9,165 3½
Cinchona febrifuge ... ..	4,725 12	3,647 0
Sulphate of quinine ... ..	3,713 12½	5,518 3½

In the above statement the total amount shown as issued to dispensaries and Government institutions, on indents signed by the Inspector-General of Civil Hospitals for Bengal, is 200½ lbs. of cinchona febrifuge. This, however, does not represent the total issues in the Province of Bengal during the year; for besides these issues on indent, 137½ lbs. of quinine and 96¾ lbs. of cinchona febrifuge were also issued to dispensaries under local Boards, and were paid for in cash. These latter issues are included in the gross sales to public officers, which are shown in the above table. As it may be of interest to trace the quantities issued to the various dispensaries throughout India during the year, I have thrown the information into a return which forms Appendix I of this report.

7. *Stock account.*—The amount of dry bark in stock in the factory godowns on the 31st March 1893 was 428,080½ lbs. of all sorts, the bulk of which is quinine-yielding bark, rather less than 40,000 lbs., being red or febrifuge-yielding bark. In addition to these there is a quantity of manufactured product and a supply of chemicals. The stocks at the end of the last year and at the end of 1891-92 are shown in the following table:—

Stock on 31st March 1892.			Stock on 31st March 1893.		
	Rs.	A. P.		Rs.	A. P.
Chemicals and stores ... ..	2,000	0 0	Chemicals and stores ... ..	2,000	0 0
Cinchona febrifuge, 1,217 lbs. 8 oz., at Rs. 8 per lb. ... ..	9,740	0 0	Cinchona febrifuge, 1,052 lbs.; at Rs. 8 per lb. ... ..	8,416	0 0
Sulphate of quinine, 2,655½ lbs., at Rs. 13 per lb. ... ..	34,521	8 0	Sulphate of quinine, 2,379 lbs., 8½ oz., at Rs. 13 per lb. ... ..	30,933	8 0
Cinchona bark, 451,217 lbs., valued at an average of annas 3 per lb. ... ..	84,603	8 0	Cinchona bark, 428,080½ lbs., valu- ed at an average of annas 3 per lb. ... ..	80,265	1 6
Total ... ..	1,30,864	11 0	Total ... ..	1,21,614	9 6

8. Collecting these figures, we obtain the financial results for the year, which are shown in the subjoined balance sheet:—

BALANCE SHEET.							
Dr.		Rs. A. P.		Cr.		Rs. A. P.	
To value of stock on 31st March 1892 ... ..		1,30,864	11 0	By cash receipts from sale of sulphate of quinine, cinchona febrifuge, and cinchona seed and bark, &c. ... ..		65,454	5 6
To cash received from the Treasury during 1892-93 for expenditure on the plantations, viz., Rungbee, Mungpoo, Sittong, and Rungjung ... ..		67,804	15 7	By credit from medical depôts for cinchona febrifuge, viz.—			
To stores from England for plantations ... ..		845	3 9	Calcutta ... ..		5,000	0 0
To cash received from the Treasury during 1892-93 for expenditure on factory ... ..		32,694	3 9	Mean Mir ... ..		5,000	0 0
To stores from England for factory ... ..		4,002	8 8			10,000	0 0
Surplus on the year's working ... ..		3,170	14 3	By credit from the Surgeon-General with the Government of India for cinchona febrifuge supplied to the Extra Assistant Superintendent in charge, No. 2 party, Eastern Bengal, Chittagong ... ..		20	0 0
				By credit from medical depôts for sulphate of quinine, viz.—			
				Calcutta ... ..		15,381	4 0
				Mean Mir ... ..		16,986	4 0
						32,367	8 0
				By credit from Commissariat Department for sulphate of quinine supplied to the Commissariat Store and Shipping Officer Calcutta, for Port Blair ... ..		800	0 0
				By credit from Inspector-General of Civil Hospitals, Bengal, for cinchona febrifuge supplied to the medical officers of Bengal ... ..		2,005	0 0
				By credit from Inspector-General of Jails, Bengal, for cinchona febrifuge, sulphate of quinine, supplied to jails and lock-ups in Bengal, viz.—			
				For cinchona febrifuge ... ..		522	8 0
				For sulphate of quinine ... ..		108	0 0
						630	8 0
				By credit from Inspector-General of Jails, Bengal, for sulphate of quinine supplied to Hazaribagh and Alipore Jails for making into pice packets ... ..		6,353	2 0
				By credit from medical depôts, Calcutta, for cinchona bark ... ..		137	8 0
				By value of stock on 31st March 1893 ... ..		1,21,614	9 6
Total ..		2,39,382	9 0	Total ...		2,39,382	9 0

9. The result of the year's working is therefore a surplus of Rs. 3,170-14-3, which, as making money is not the object for which the plantation is maintained, may, I trust, be considered sufficient. As I have explained in previous annual reports, the entire total capital expenditure on the plantation from its beginning has been covered several times over by the profits made during the early years of the manufacture of cinchona febrifuge, and by the savings effected by the



substitution in Government hospitals and dispensaries of that drug for quinine, (see Government Resolution, Financial Department, Miscellaneous, dated 26th March 1888). The factory has never had a capital account, as the total expenditure of each year on machinery, as well as on working expenses, has been calculated in the cost price of each year's outturn. Government are therefore in possession of a plantation and factory, the whole cost of which has years ago been refunded to them. Mr. Gammie, who is in charge of the factory, is continuous in his efforts to improve the method of manufacture and to cheapen its cost; and it is hoped that the good effects in these respects of the alterations in the machinery made during the past year may become apparent during the current year.

10. *Sale of quinine at post-offices.*—The chief event of the year has been the organization of the system by which quinine, made up in doses of five grains, is offered for sale at most of the post-offices within the Province of Bengal. Each dose is made up in a neat closed paper envelope, and is sold for one pice. Each packet carries the royal arms as a guarantee of genuineness, together with brief instructions in the vernacular. To encourage the post-office officials to push the sale of these packets, a small commission is allowed, and considerable facility is offered for replenishing of stocks by post-masters; the parcel-rates for transmission, however, bear rather heavily on the scheme, and I trust some means of lightening them may soon be found. When the scheme was suggested last year, it very soon became obvious that one of the first conditions of success would be to find some means of making up the packets by which adulteration and loss from pilfering and careless weighment might be reduced to a minimum. It was therefore decided by Government to make this matter over to the Jail Department. The quinine is therefore made over from the factory to that department in bulk, and by prison labour it is subdivided into pice packets, 1,400 of which go to each avoirdupois pound. The Jail Department distributes these packets to the post-masters and collects the proceeds of the sales at the various post-offices. A dose of pure quinine is by this means put within the reach of any person within the province who has a pice to buy it with. Thus at last, after thirty years of effort, has the end been attained which the Government set before itself when the growth of the medical cinchonas was begun in British India. That end was thus expressed in an early Government resolution on the subject:—"To put the only medicine that is of any use in the cure of the commonest and most fatal of Indian diseases within the reach of the poorest." Of the provinces usually supplied with quinine from the Mungpoo Factory, Bengal is the only one into which this pice-packet system has as yet been introduced. It is believed that, should the various provinces under the Government of India adopt the system, large demands will be made on the cinchona plantation, and extended planting operations may have to be undertaken. To meet such, Government have, in addition to the land reserved in the neighbourhood of Mungpoo, a reserve on the Bhootan frontier in Engo Valley, in which ground has not yet been broken.

11. *Firewood Plantation.*—About twenty acres were added to the firewood plantation during the year; and from the older parts of it a considerable number of small trees were taken for building purposes.

12. The sum of Rs. 2,174-10 collected during the year from settlers with the cinchona reserve for rents and grazing dues, was paid into the Darjeeling Treasury as land revenue from Government estates. This sum is, however, not taken credit for in the plantation accounts.

13. I was on furlough in England during seven months of the year under review; and during my absence, Mr. J. A. Gammie, Deputy Superintendent, acted for me. On my return he resumed his ordinary duties. Mr. G. A. Gammie was absent for four months on a botanical collecting tour in the interior of Sikkim, the results of which tour have been communicated to Government in a separate report: for three months Mr. G. Gammie also acted for Mr. Kennedy in charge of the Lloyd Botanic Garden, Darjeeling. The other assistants on the plantation and the clerks in the office worked during the whole year, and conducted their duties to the satisfaction both of Mr. J. Gammie and myself.

# REPORT ON THE STATE OF THE SALT MARKET FOR THE FIRST QUARTER OF 1893-94.

No. 706B., dated Calcutta, the 17th August 1893.

From—T. INGLIS, Esq., Secretary to the Board of Revenue, L.P.,

To—The Secretary to the Government of Bengal, Financial Department.

I AM directed by the Board of Revenue to submit the following report on the state of the salt market for the 1st quarter of 1893-94, comprising the months of April, May, and June 1893.

SALT.

HON'BLE D. R. LYALL, C.S.I.

2. The quantity of salt of every description cleared during the quarter under report amounted to 24,33,242 maunds, against 24,22,398 maunds in the previous quarter, and 25,26,086 maunds in the corresponding quarter of the previous year; and the net amount of duty levied thereon was Rs. 56,96,847, against Rs. 56,82,664 in the previous quarter, and Rs. 59,46,708 in the corresponding quarter of the previous year. In all cases fractions are omitted.

3. The quantity of excise salt removed from the golas in Orissa during the quarter under review, and the quantity which remained in store at the close of the quarter, are shown in table I:—

TABLE I.

			Puri.	Balasore.
			Mds. s.	Mds. s.
Balance at close of the last quarter	...	...	19,908 10	250 0
Manufactured or added during the quarter	...	...	15,422 0	.....
Total	...	...	35,330 0	250 0
Sales during the quarter	...	...	2,589 0	7 0
Wastage	...	...	.....	.....
Total	...	...	2,589 0	7 0
Balance at close of the quarter	...	...	32,741 0	243 0

4. The total sale of excise salt during the quarter under review amounted to 2,596 maunds, against 2,408 maunds in the previous quarter, and 17,566 maunds in the corresponding quarter of the previous year. The total amount of excise salt on which duty was paid during the quarter was 2,598 maunds. The large reduction in the sale of this salt since last year is not satisfactory as showing that the salt manufactured on the Chilka Lake is not popular, and further enquiry regarding the cause of the decrease will be made.

5. The subjoined table shows in detail the importations into the port of Calcutta and the total clearances of sea-imported salt during the quarter under review compared with the figures of the corresponding quarters of the previous two years, the ports being grouped in accordance with the classification adopted in last year's annual report:—

TABLE II.

GROUP.	Port.	1891-92.		1892-93.		1893-94.	
		First quarter.		First quarter.		First quarter.	
		Imported.	Cleared.	Imported.	Cleared.	Imported.	Cleared.
		Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
I	Liverpool	15,54,461	16,91,601	13,23,763	14,58,699	16,10,548	15,39,610
II	Hamburg	3,91,319	2,51,698	.....	2,04,577	81,122	22,700
III	Bombay	.....	.....	.....	37,510	.....	.....
	Batoum	.....	.....	.....	3	.....	.....
IV	Aden	2,80,305	3,17,849	2,25,672	3,03,439	2,33,507	2,92,701
	Arabian and Persian Gulfs and Red Sea, excluding Aden	19,840	2,34,093	93,644	1,46,830	1,86,866	3,44,348
V	Bombay	1,22,088	1,41,011	1,85,107	1,35,203	1,50,316	1,44,526
VI	Tuticorum	.....	.....	74,978	10,765	.....	18,508
	Adelaide	.....	.....	.....	.....	130	131
Miscellaneous	Ceylon	.....	1,800	.....	2	.....	.....
	Total	23,68,105	26,38,033	19,03,164	24,32,011	22,02,540	23,57,524

6. Table III shows the quantity of sea-imported salt remaining in the warehouses at the close of the quarter as compared with the results of the previous four quarters:—

TABLE III.

WHERE STORED.			First quarter of 1892-93.	Second quarter of 1892-93.	Third quarter of 1892-93.	Fourth quarter of 1892-93.	First quarter of 1893-94
			Mds.	Mds.	Mds.	Mds.	Mds.
Sulkea Government golas	...	...	8,89,875	8,13,493	8,40,847	6,12,084	7,47,749
Chittagong ditto do.	...	...	29,151	1,03,107	1,50,714	1,16,380	1,01,642
Ditto private do.	...	...	2,176	.....	.....	.....	.....
Narainganj ditto do.	...	...	.....	.....	.....	.....	.....
Total			9,21,502	9,16,650	9,97,361	7,28,464	8,49,391

7. The despatches of salt from Calcutta by water and the three railways passing the several salt-pass stations into the interior of the country, both east and west of the river Hooghly, as well as the despatches by steamers and flats, during the quarter under review and the corresponding quarters of the previous two years, are shown in the table below:—

TABLE IV.

PERIOD.	BY WATER.					BY RAIL.			BY STEAMERS AND FLATS.	
	Via Balikhah.	Via Sakral.	Via Gewa- kally.	Via Kaddia- pore.	Via Balia- ghata.	Via Rutherford Ghat.	By the East Indian Rail- way.	By the East- ern Bengal and South Eastern Rail- ways or via Chittur.	Quantity des- patched to the inter- ior (excluding Orissa).	Quantity des- patched to Orissa.
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
First quarter of 1891-92	1,63,904	1,36,353	98,057	1,39,559	27,707	699	10,77,493	4,53,319	2,38,104	56,304
Ditto of 1892-93	1,52,463	1,19,770	42,143	65,066	2,35,638	200	10,22,649	3,86,184	2,73,066	48,920
Ditto of 1893-94	1,59,169	1,30,415	44,219	61,680	2,00,677	34	9,82,639	3,22,634	2,99,260	63,500

8. The quantity of salt despatched by the East Indian Railway to stations beyond Buxar during the quarter under review amounted to 1,032 maunds 30 seers, as noted in the margin, against 1,721 maunds 10 seers in the previous quarter, and 2,754 maunds in the corresponding quarter of the previous year.

9. The quantity of saltpetre-salt removed from the refineries on payment of duty amounted to 9,349 maunds, against 11,853 maunds in the previous quarter.

10. The shipments of Liverpool salt for the port of Calcutta, according to published market reports, were as follows:—

		Tons.
April	...	11,210
May	...	17,700
June	...	8,760
Total	...	37,670

It is reported that 3,225 tons of salt were shipped from Hamburg for the port of Calcutta.

11. Table V shows the average wholesale price per 100 maunds of Liverpool and other descriptions of salt during each fortnight of the quarter:—

TABLE V.

DESCRIPTION OF SALT.	Fortnight ending 15th April 1893.	Fortnight ending 30th April 1893.	Fortnight ending 15th May 1893.	Fortnight ending 31st May 1893.	Fortnight ending 15th June 1893.	Fortnight ending 30th June 1893.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Liverpool	55 6 11	57 2 0	58 10 2	66 7 4	69 9 6	68 6 2
Hamburg karkach	...	...	...	...	...	65 0 0
Muscot ditto	44 14 0	44 0 0	46 0 0	46 8 5	48 0 0	50 0 0
Jedda ditto	...	...	49 3 7	50 6 0	52 11 0	53 4 4
Bombay ditto	49 8 0	48 1 7	47 12 0	48 0 0	47 5 7	45 0 0
Rock ditto	...	60 0 0	...	63 0 0	...	...

12. The following table shows the quantity of sea-imported salt admitted into bond and cleared from bond and shipboard at Chittagong and Narainganj during the quarter under review and the corresponding quarter of 1892-93 :—

TABLE VI.

PORT.	Description of Salt.	ADMITTED INTO BOND.		CLEARED.	
		First quarter of 1892-93.	First quarter of 1893-94.	First quarter of 1892-93.	First quarter of 1893-94.
		Mds. s.	Mds. s.	Mds. s. c.	Mds. s. c.
Chittagong	Liverpool	9,040 0	24,190 0	56,702 0 0	40,124 28 0
	Hamburg	.....	.....	.....	1,740 0 0
	Arracan	.....	.....	0 4 8	.....
	Madras	.....	.....	0 21 0	0 0 4
	Ceylon	.....	.....	.....	0 2 0
	Akyah	.....	.....	.....	0 1 8
Narainganj	Liverpool	.....	.....	21,285 0 0	31,254 20 0
	Total	9,040 0	24,190 0	77,987 25 8	73,119 11 12

No transactions in sea-imported salt have been reported for the quarter from the ports of Cuttack, Puri, and Balasore.

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 19th August 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL.</b>			
Burdwan Divn.	1 Burdwan Aug. 19, '93	0.15	Weather—seasonable. A break in the rains. Transplantation of <i>aman</i> nearly completed. Prospect of <i>aus</i> good. Fodder and water sufficient. Prices of common rice :—  Srs. Burdwan ... 11 to 14 Kalna ... 9 to 12 Kutwa ... 12½ Raniganj ... 12½ } per rupee.
	Kalna ...	1.03	
	Kutwa ...	0.62	
	Raniganj ...	0.27	
	2 Bankura „ 19, '93	1.46	Weather—seasonable. Transplantation of <i>aman</i> is finished. <i>Aus</i> plants thriving well. Common rice selling at—  Srs. Bankura ... 13½ Vishnupur ... 12 } per rupee.
	Vishnupur ...	0.31	
	3 Birbhum „ 19, '93	4.23	Weather—rain every day with occasional sunshine. Rice crop is flourishing and already grown to a good height. Price of common rice 11 to 14½ seers per rupee.
	Rampur Hât ...	1.29	
	4 Midnapore „ 19, '93	0.72	Weather—hot and cloudy with a fair amount of rain at the Sadar. It is beginning to look like the end of the rains. Prospects of crops are now getting more definite. Except in a part, but not a large part, of Tamluk, where all hope of the <i>aman</i> crop must be abandoned, prospects are good. Prices of common rice :—  Srs. Sadar ... 11 Contai ... 12½ Tamluk ... 10 Ghatal ... 10 to 11 } per rupee.
	5 Hooghly „ 19, '93	0.75	Weather—seasonable. Harvesting of jute and <i>aus</i> progressing. <i>Aman</i> transplantation all but finished. Fodder and water for cattle ample. Prices of common rice :—  Srs. Sadar ... 10 to 11 Serampore ... 10 to 11½ Jahanabad ... 10 to 12 } per rupee.
	Serampore ...	0.47	
	Jahanabad ...	2.19	
Presidency Divn.	6 Howrah „ 19, '93	0.64	Weather—sultry. Transplantation of rice crop continues. Condition of cattle good. Fodder and water-supply sufficient. Price of rice 10 seers per rupee.
	Ulubaria ...	0.80	
	7 24-Parganas „ 19, '93	0.72	Weather—seasonable. Transplantation of <i>aman</i> going on. <i>Aus</i> and jute being cut. Prospects of crops not favourable in the southern part of the district and bad in the Mathurapur and Bunkipur thanas. In the north of the district prospects are fair. Rice sells at—  Srs. Sadar ... 10 Basirhat ... 10 Barasat ... 9½ Diamond Harbour ... 11 } per rupee.
	8 Nadia „ 19, '93	2.43	Weather—cloudy and usually cool. Prospects of crops fair. <i>Aus</i> rice harvest nearly over. Jute harvest proceeds. <i>Aman</i> rice still being transplanted. Price of common rice has fallen one anna per maund at Krishnagar. Rivers high and rising.
	Kushtia ...	2.40	
	Meherpur ...	2.14	
	Chuadanga ...	1.09	
	Ranaghat ...	0.46	
	9 Khulna „ 19, '93	1.08	Weather—showery. <i>Aman</i> rice being transplanted. <i>Aus</i> has been a failure in Bagerhat. Fodder and water plentiful.
	Bagerhat ...	2.51	
	Satkhira ...	1.43	
	10 Jessore „ 19, '93	0.46	Weather—hot and cloudy with showers at intervals. Harvesting of <i>aus</i> and extracting of jute in progress. Outturn of jute 7 annas. Transplantation of <i>aman</i> nearly completed. Cattle-disease reported from Manirampur. Fodder sufficient except in Mamudpur. Prices steady.
	Jhenida ...	1.22	
	Magura ...	2.75	
	Narail ...	1.91	
	Bangson ...	0.92	
	11 Murshidabad „ 19, '93	3.86	Weather—seasonable. Harvesting of <i>bhadoi</i> nearly finished. Jute, mulberry and hemp are doing well. Fodder for cattle sufficient. Coarse rice sells at 11 seers per rupee.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL—concluded.			
CHITTAGONG DIVN.	12 Chittagong Aug. 19, '93	8.33	Weather—seasonable. Harvesting of <i>aus</i> and transplanting of <i>aman</i> still going on. Prospects fair. Prices rising. Condition of cattle generally good. Supply of fodder sufficient.
	13 Noakhali „ 19, '93	1.92	Weather—cloudy with rain at intervals. State and prospects of crops not good. Harvesting of <i>aus</i> nearly completed. Transplantation of <i>aman</i> continues. Cattle-disease reported from Fenny and Comaniganj thanas. Fodder is not sufficiently available, consequently many cattle died. Common rice selling at 8 seers per rupee at Noakhali.
	14 Tippera „ 19, '93	4.96	Weather—seasonable. State of crops is bad. A large portion of the paddy field is under water. About half the <i>aus</i> crop has been damaged by rain. Prospect of <i>aman</i> not good. Water still rising. Rice sells at 8 seers per rupee.
	15 Chittagong Hill Tracts. „ 18, '93	5.29	Weather—showery with occasional fair weather. Condition of <i>jum</i> -paddy good. <i>Aus</i> ripening in some places. Fodder and water sufficient. No cattle-disease prevailing. Common rice selling at 9 seers per rupee.
DACCA DIVN.	16 Dacca „ 19, '93	0.99	Weather—hot and cloudy with occasional rain. <i>Rowa</i> and <i>shail</i> paddy being sown. Harvesting of <i>aus</i> and jute going on. Prospects fair. <i>Aus</i> on low lands is under water and partially damaged. <i>Aman</i> paddy also has been submerged in some places. Water still rising. Common rice selling at from 8 to 10 seers per rupee. Fodder not sufficiently available. No cattle-disease.
	17 Faridpur „ 19, '93	0.83	Weather—seasonable. Rivers rising, and already the flood is very high. The town of Faridpur is overflooded. <i>Aus</i> and jute are being cut; outturn poor. Condition of <i>aman</i> on high lands still hopeful. Common rice sells at 9 to 11 seers per rupee. Price of rice gradually increasing. Condition of cattle generally good, but cattle-disease prevails in thana Shibchar in Madaripur.
	Goalundo „	2.80	
	Madaripur „	3.47	
	18 Bagerganje „ 19, '93	0.96	Weather—seasonable. State and prospects of crops moderate. Common rice is being sold from 8 to 10 seers per rupee. Fodder and water sufficient.
	Pirojpur „	0.86	
Patuakhali „	0.75		
Bhola „	2.98		
19 Mymensingh „ 19, '93	3.13	Weather—first part of the week cloudy; latter part fair and hot. Water has not yet subsided. Jute and <i>aus</i> crops are being harvested. Transplantation of <i>aman</i> paddy going on. Common rice sells at 9 to 10 seers per rupee. Fodder sufficient except in Kishorganj and in part of Notrakona.	
RAJSHAHI DIVN.	20 Dinajpur „ 19, '93	1.31	Weather—hot; occasionally cloudy. Prospects of standing crops very good. Transplantation of <i>haimanti</i> still going on. Jute being cut and washed. Price of rice at Sadar 12 seers per rupee; that at Thakurgaon stationary. Condition of cattle good. Fodder and drinking water sufficient.
	Thakurgaon „	6.59	
	21 Rajshahi „ 19, '93	2.25	Weather—seasonable. Prospects of standing crops reported to be good. Reaping and steeping of jute going on. Condition of cattle generally good. No want of fodder and water. Price of rice is the same as reported last week.
	Nator „	6.04	
Naugaon „	3.09		
RAJSHAHI DIVN.	22 Rangpur „ 19, '93	1.26	Weather—hot and cloudy. Transplanting of <i>aman</i> still in progress. Prospects continue favourable.
	Gaibanda „	7.39	
	Kurigaon „	4.16	
	Nilphamari „	4.66	
RAJSHAHI DIVN.	23 Bogra „ 19, '93	5.72	Heavy rain at beginning of week followed by fine weather. <i>Aus</i> and jute are being cut. Prospects unchanged. Common rice sells at 12 seers per rupee. Fodder and water sufficient.
	Sherpur „	3.24	
	Naukhila „	5.36	
	24 Pabna „ 19, '93	3.63	Weather—cloudy and sometimes rainy. Raining almost every day. Rivers rising rapidly. <i>Aus</i> and jute are being cut. Common rice sells at Rs. 4 and jute at Rs. 4-12 to Rs. 5-4 per mound at Sirajganj. At Pabna common rice sells at 11 seers per rupee. Fodder and water sufficient.
RAJSHAHI DIVN.	25 Dacca „ 19, '93	3.55	Weather—less rainy. In the hills:— <i>Bhutta</i> progressing favourably. <i>Phaphur</i> and <i>chota murua</i> being harvested. <i>Aghani</i> paddy and <i>bara murua</i> progressing favourably. In the Terai:—Harvesting of <i>bhadoi</i> going on. Transplanting of <i>haimanti</i> continues. Jute doing well. Prices of coarse rice:—
	Siliguri „	8.31	
RAJSHAHI DIVN.	26 Jalpaiguri „ 19, '93	4.08	Weather—hot. Harvesting of <i>bhadoi</i> and transplantation of <i>haimanti</i> paddy continue. Prospects of jute good. Common rice sells at 11 seers per rupee at Sadar and 9 to 10 seers at Alipur. Fodder and water sufficient. No cattle-disease.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR.</b>			
<b>BHAGALPUR DIV.</b>	27 Monghyr Aug. 19, '93	Nil	Weather—sultry and cloudy. Transplantation of <i>aghani</i> is being vigorously pushed on. <i>Makai</i> and <i>marua</i> ripening. Sugarcane and indigo doing well. A few stray cases of cattle-disease reported from Nawadib, Shaikpura, and Bakhtiarpur. Plenty of fodder and water. Prices of common rice :— Srs. Sadar ... .. 11 to 16 Begusarai ... .. 13½ Jamui ... .. 12 } per rupee.
	Begusarai ...	3.89	
	Jamui ...	2.73	
	28 Bhagalpur „ 19, '93	0.16	Transplantation of winter rice approaching completion. Prospects continue favourable. Price of common rice 18 seers 9 chitaks per rupee.
	Banka ...	1.78	
	Madhipura ...	5.62	
	Supaul ...	4.96	
	29 Purnea „ 19, '93	2.55	Weather—hot with occasional showers. <i>Bhadai</i> paddy and jute being harvested. <i>Aghani</i> paddy being transplanted. Prospects good. No cattle-disease except in parts of Araria thana. Fodder and water sufficient. Coarse rice sells at— Srs. Sadar ... .. 12 to 14 Kishanganj ... .. 12 Araria ... .. 16 } per rupee.
	Kishanganj ...	5.08	
	Araria ...	5.22	
	30 Mulda „ 19, '93	0.84	
	31 South Parganas „ 19, '93	1.27	Weather—hot with occasional showers and variable winds. Outturn of <i>makai</i> crop bad. Rice nearly all transplanted. Prospects favourable. Fodder plentiful. Price of rice about same as last year, rather dearer—12½ seers against 13 seers per rupee.
	Deoghur ...	2.23	
	Godda ...	3.37	
	Pakur ...	6.43	
	Rajmahal ...	2.24	
<b>PATNA DIVISION.</b>	32 Patna „ 19, '93	0.43	Weather—hot and occasionally cloudy. There is no doubt that the <i>bhadai</i> crops have suffered from the heavy rainfall. The level of the river is high, and the surplus water is draining off slowly. Transplantation of rice is far advanced. Prices of common rice :— Srs. Sadar ... .. 15 Barh ... .. 13 Bihar ... .. 15 Dinapore ... .. 13 } per rupee.
	Barh ...	1.60	
	Bihar ...	2.77	
	Dinapore ...	2.97	
	33 Gaya „ 19, '93	Nil	
	Jahanabad ...	3.72	Weather—hot and occasionally cloudy. Paddy transplantation continues. Harvesting of <i>marua</i> begun. Prices of food-grains stationary. Supply of fodder and water for cattle sufficient.
	Aurangabad ...	0.11	
	Nawada ...	3.4	
	34 Shahabad „ 19, '93	Nil	There has been a break in the rains with its usual characteristics. The interval of dry weather has benefited the <i>bhadai</i> crops, but in the north of the district the heavy rain last week has stunted their growth. Transplantation of winter rice is proceeding. Rivers are falling rapidly.
	Buxar ...	1.55	
	Bhabhua ...	0.94	
	Sasaram ...	0.72	
	35 Darbhanga „ 19, '93	0.70	Weather—hot and close. Heavy and unprecedented flood of Bagmati and Kamla damaging <i>bhadai</i> and rice crops, especially in the Sadar subdivision. Cattle suffering in places for want of sufficient fodder. Water going down slowly. Extent of damage done by flood not yet ascertained. Over a thousand houses washed away in Darbhanga town.
	Samsatipur ...	3.55	
	Madhubani ...	6.72	
	36 Munaffarpur „ 19, '93	3.07	Weather—cloudy and hot. Very heavy floods from the Bagmati and little Guduk. The country between these rivers has suffered severely. Pupri thana has also suffered, and the railway embankment has been breached. <i>Bhadai</i> to a great extent lost in this area, and it is feared the paddy will also suffer. Impossible to judge loss at present until floods subside.
	Hajipur ...	2.69	
	Sitamarhi ...	4.11	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.	
BIHAR—concl'd.				
PATNA DIVISION—concl'd.	37 Saran Aug. 10, '93	2.27	Weather— heavy showers at beginning and end of week with hot fine days between. Prospects of crops very good indeed. <i>Makai</i> just beginning to be gathered where planted early. Rice transplantation busily going on, but not yet near completion in some parts. Fodder and water plentiful. Prices of common rice :—  Chapra           ...           ...           ...           Srs. 13 Siwan           ...           ...           ...           13 } per rupee. Gopalganj       ...           ...           ...           14½	
	Siwan           ...	3.70		
	Gopalganj       ...	3.55		
38 Champaran       ,, 19, '93	0.64	Weather— cloud and sunshine as usual at this time of year. Heavy floods occurred during the week, which have now nearly subsided. Much damage has been done by them to the <i>bhadoi</i> and <i>aghani</i> crops. Fodder and water sufficient. Prices stationary.		
ORISSA.				
ORISSA DIV.	39 Cuttack           ,, 19, '93	0.67	Weather—cloudy with occasional light showers. <i>Brali</i> in ear and in some places ripening and being reaped. Prospect good. <i>Sarad</i> being transplanted. Fodder-supply sufficient. Prices of common rice :—  Sadar           ...           ...           Srs. c. Srs. c. 10 8 to 13 2 Jajpur           ...           ...           15 12 to 17 6 } per rupee. Kendrapara     ...           ...           13 10 to 21 0 Banki           ...           ...           15 12	
	40 Puri           ,, 17, '93	1.04		Weather—hot. Puddling and transplanting of <i>sarad</i> going on. Rainfall deficient in the eastern part of the district. Prices of common rice :—  Sadar           ...           ...           Srs. c. Srs. c. 11 13 to 15 0 Khurda          ...           ...           12 0 to 17 1 } per rupee.
	Khurda          ...	3.50		
	41 Balasore       ,, 19, '93	2.19		Weather—cloudy with occasional showers. Transplanting of paddy nearly finished. Weeding in progress. Rain reported on three or four days during the past week. Sugarcane shows great promise. Prices in the district have risen slightly. Prices at Balasore and Bharak are stationary.
CHOTA NAGPUR.				
South-West Frontier Agency.				
CHOTA NAGPUR DIV.	42 Hazaribagh Aug. 19, '93	0.43	Weather— bright with occasional clouds and almost rainless. Indian-corn has almost entirely failed all over the district. Transplanting of <i>marua</i> and paddy completed. Crops doing well. Fodder and water ample. Price of common rice 9 to 14 seers per rupee at Head-quarters and at Giridi 11½ seers per rupee.	
	Giridi           ...	1.08		
	43 Lohardaga       ,, 19, '93	0.28	Weather—hot and a little cloudy. Transplantation of winter paddy finished. Prospect of <i>bhadoi</i> good. Common rice selling at 14 seers per rupee. Fodder and water plentiful.	
	44 Palamau       ,, 18, '93	0.26	There has been a break in the rains. The <i>bhadoi</i> crops have been most seriously damaged, and the outturn will be very small. Transplantation of paddy going on vigorously and should soon be completed. <i>Marua</i> also being transplanted. A little cattle-disease reported. Rice selling at 12 seers 6 chitaks to 18 seers per rupee. Fodder and water abundant.	
	45 Singhbhum       ,, 19, '93	2.20	Weather—seasonable. <i>Gora</i> paddy, Indian-corn and <i>goondli</i> being harvested ; 10 to 16 annas outturn expected. Winter rice crop is in very good condition. Price of common rice ranges from 10 to 12 seers per rupee. A few cases of cattle-disease reported.	
46 Manbhum       ,, 19, '93	0.84	Weather—warm and bright with occasional showers. The weather is very favourable. Prospects good. Prices stationary. Fodder and water ample.		
Gobindpur       ...	1.04			

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M. FINUCANE,  
Offg. Secy. to the Govt. of Bengal.



**PRICES-CURRENT (*RETAIL*) OF FOOD-GRAINS, FIREWOOD AND SALT IN THE  
HEAD-QUARTERS STATION BAZARS OF THE DISTRICTS OF BENGAL  
DURING THE FORTNIGHT ENDING THE  
15<sup>TH</sup> AUGUST 1893.**

## PRICES-CURRENT (retail) of Food-grains, Firewood, and Salt in the

QUANTITIES PER RUPEE IN

Number.		DISTRICTS.	QUANTITIES PER RUPEE IN																									
			WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLUM. ( <i>Sorghum Vulgare.</i> )													
			Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.								
BENGAL.																												
BURDWAN DIVISION.	1	Burdwan	13 8	13 8	12 0	...	...	...	9 4	9 8	10 2	12 0	11 4	12 9	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	2	Bankura	13 14	13 4	11 0	...	...	...	10 4	10 0	10 0	12 4	11 2	14 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	3	Birbhum	12 0	12 0	11 4	...	...	...	10 8	10 8	10 4	12 0	12 0	12 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	4	Midnapore	11 0	11 0	10 8	...	...	...	10 0	10 0	11 4	11 8	11 14	13 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	5	Hooghly	13 15	11 12	12 5	17 3	...	14 9	8 0	8 0	8 0	10 0	10 0	10 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	6	Howrah	...	...	...	...	...	...	8 13	8 10	8 10	11 6	10 12	13 5	...	...	...	...	...	...	...	...	...	...	...	...	...	...
PRESIDENCY DIVISION.	7	Calcutta	12 8	12 8	11 0	17 1	17 2	14 12	7 7	7 12	8 0	9 12	10 0	10 10	19 0	19 0	14 8	...	...	...	...	...	...	...	...	...	...	...
	8	24-Parganas	11 8	11 8	11 8	20 0	20 0	16 0	8 0	8 0	8 0	10 12	11 0	12 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	9	Nadia	14 8	14 8	11 15	21 0	21 0	17 12	8 7	8 7	10 0	10 10	10 6	11 2	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	10	Khulna	...	...	...	...	...	...	8 0	8 0	10 8	9 0	9 0	11 8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	11	Jessore	11 8	10 8	10 0	13 0	13 0	...	8 8	8 8	9 0	10 8	10 0	12 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	12	Murshidabad	12 0	12 0	12 0	...	...	...	9 0	9 0	9 0	11 4	11 4	12 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CHITTAGONG DIVISION.	13	Chittagong	10 0	10 0	10 0	...	...	...	9 0	9 0	7 8	10 4	11 4	10 8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	14	Noakhali	...	...	...	...	...	...	8 0	9 6	11 0	9 4 to 10 0	11 4	12 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	15	Tippera	10 0	10 0	7 8	...	...	...	8 0	8 0	8 4	8 7	9 12	9 12	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	16	Chittagong Hill Tracts.	...	...	...	...	...	...	...	...	...	9 0	8 14	8 14	...	...	...	...	...	...	...	...	...	...	...	...	...	...
DACCA DIVISION.	17	Dacca	11 0	11 0	10 3	...	...	...	8 8	9 0	9 8	9 8	10 8	11 8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	18	Faridpur	16 0	16 0	13 0	18 0	18 0	...	8 0	8 0	10 0	9 0	10 0	12 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	19	Backergunge	...	...	...	...	...	...	8 0	8 12	6 4	8 8	9 0	10 8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	20	Mymensingh	9 8	9 8	9 8	...	...	...	8 0	9 0	10 0	9 0	10 8	13 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
RAJSHAH DIVISION.	21	Dinajpur	13 0	13 0	10 0	...	...	...	9 8	9 9	9 0	12 0	12 9	11 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	22	Rajshahi	13 8	13 8	12 0	24 0	24 0	19 8	9 0	9 12	9 0	10 14	10 14	10 14	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	23	Ranepur	13 5	13 5	11 4	...	...	...	8 0	8 2	8 0	11 1	11 4	8 12	...	...	...	...	...	...	...	...	...	...	...	...	...	...

A In the subdivisions the retail prices of salt per rupee are:—Kulna 10 seers, Katwa 11½ seers, and Raniganj 10½ seers.

B At Vjelnupur the retail price of salt is 10 seers per rupee.

C At Rampur Hat the retail price of salt is 11 seers per rupee.

D In the subdivisions the retail prices of salt per rupee are:—Contai 10 seers, Tamluk 11 seers, and Ghatal 10 seers 7 chitaks.

E In the subdivisions the retail prices of salt per rupee are:—Serampore (Bhadroswar) 11 seers 9 chitaks and Jahanabad 10 seers 10 chitaks.

F At Ulubaria the retail price of salt is 11 seers per rupee.

G Retail prices of salt in the marts in the interior of the district are:—Baduria 11 seers, Magrahat 10 seers 10 chitaks, Barasat 10 seers 10 chitaks, and Chotla 11 seers 7 chitaks.

H In the subdivisions the retail prices of salt per rupee are:—Bahadurkhat 10½ seers, Chuadanga 10½ seers, Meherpur 11 seers, and Kanaganat 10½ seers.

I In the subdivisions the retail prices of salt per rupee are:—Bagerhat 8 seers and Sathkira 10 seers 10 chitaks.

J In the subdivisions the retail prices of salt per rupee are:—Jhenida 10 seers, Magura 10 seers, Narail 9 seers 10 chitaks, and Bangaon 10 seers 11 chitaks.



## PRICES-CURRENT (retail) of Food-grains, Firewood, and Salt in the Head-quarters

Number.		DISTRICTS.	QUANTITIES PER RUPEE IN															
			WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU (Sorghum Vulgare).			
			Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
BENGAL—continued.																		
RAJSHAHI DIVISION—cont'd.	23	Bogra	...	13 8	13 2	12 0	...	...	...	9 0	8 4	9 12	11 4	10 8	10 8	...	...	...
	24	Pabna	.	17 4	17 4	13 8	24 0	24 0	...	6 0	6 0	6 12	11 12	11 12	12 6	.	.	...
	25	Darjeeling	..	8 0	8 0	8 0	10 0	9 0	10 0	5 0	5 8	5 0	10 0	10 0	9 0	...	...	...
	26	Jalpaiguri		12 0	12 0	11 0	14 0	14 0	16 0	8 0	8 0	6 0	11 0	11 0	10 0	.	...	...
BIHAR.																		
BRIGALPUR DIVISION.	27	Monghyr	...	15 12	$\left\{ \begin{smallmatrix} 14 & 0 \\ 15 & 4 \end{smallmatrix} \right\}$	13 0	21 0	21 0	23 4	19 8	$\left\{ \begin{smallmatrix} 8 & 0 \\ 10 & 0 \end{smallmatrix} \right\}$	9 0	11 8	$\left\{ \begin{smallmatrix} 11 & 0 \\ 12 & 0 \end{smallmatrix} \right\}$	10 0	...	..	...
	28	Bhagalpur	...	15 2	15 2	13 14	20 3	21 7	15 2	10 1	11 6	10 1	13 14	13 14	11 6	.	...	...
	29	Purnea (Kasba)		16 0	16 0	12 0	...	...	...	11 0	10 0	11 0	14 0	12 0	12 0	.	.	...
	30	Malda (English Bazar).		14 0	14 0	12 0	...	...	...	10 0	10 0	10 0	16 0	12 8	12 0	...	..	...
	31	Sonthal Parganas.		11 8	11 0	11 0	...	...	...	11 0	11 0	9 0	14 0	14 0	11 8	...	.	...
PATNA DIVISION.	32	Patna	...	$\left\{ \begin{smallmatrix} 18 & 0 \\ 16 & 0 \end{smallmatrix} \right\}$	$\left\{ \begin{smallmatrix} \text{Red.} \\ 17 & 0 \\ \text{White.} \\ 14 & 0 \end{smallmatrix} \right\}$	$\left\{ \begin{smallmatrix} 15 & 8 \\ 14 & 8 \end{smallmatrix} \right\}$	25 0	21 0	20 0	10 0	10 0	10 0	14 0	15 0	13 0	22 0	23 0	19 0
	33	Gaya	...	14 0	14 0	12 8	20 0	20 0	16 0	9 8	9 8	9 0	13 0	13 0	12 0	17 12	17 8	16 0
	34	Shahabad	...	14 0	16 0	13 0	20 0	18 0	16 0	8 0	8 0	9 0	11 8	13 8	11 0	...	...	...
	35	Darbhanga	...	13 2	12 9	12 1	20 12	20 4	17 10	12 2	12 9	10 0	14 3	14 3	12 10	...	...	...
	36	Muzaffarpur	...	14 8	14 8	13 0	22 0	19 0	18 0	8 0	8 0	9 0	13 0	13 8	11 8	..	..	...
	37	Saran	...	16 0	15 8	13 8	23 4	21 8	19 0	10 9	10 0	8 8	13 0	13 0	11 5	...	...	...
	38	Champaran	...	14 12	14 8	13 0	23 4	22 8	16 0	8 4	9 0	9 0	14 4	14 0	13 0	...	...	...
ORISSA.																		
ORISSA DIVISION.	39	Cuttack	...	11 13	11 7	7 14	...	...	...	10 8	10 8	8 13	13 2	14 7	11 13	...	...	..
	40	Puri	...	9 8	10 0	9 8	...	...	...	8 0	8 0	7 8	13 0	13 0	12 0	..	...	...
	41	Balasore	...	11 0	11 0	11 0	10 0	10 0	10 0	10 0	9 0	10 0	13 0	13 0	14 0	...	...	..
CHOTA NAGPUR.																		
CHOTA NAGPUR DIVISION.	42	Hazaribagh	...	$\left\{ \begin{smallmatrix} 12 & 0 \\ 12 & 8 \\ 10 & 0 \end{smallmatrix} \right\}$	$\left\{ \begin{smallmatrix} 12 & 0 \\ 10 & 0 \\ 11 & 0 \end{smallmatrix} \right\}$	$\left\{ \begin{smallmatrix} 11 & 8 \\ 9 & 8 \\ 9 & 8 \end{smallmatrix} \right\}$	16 0	16 0	14 0	8 0	7 0	8 0	12 4	$\left\{ \begin{smallmatrix} 12 & 0 \\ 13 & 0 \end{smallmatrix} \right\}$	11 8	...	...	...
	43	Lohardaga	...	$\left\{ \begin{smallmatrix} 7 & 8 \\ 9 & 0 \end{smallmatrix} \right\}$	$\left\{ \begin{smallmatrix} 8 & 0 \\ 9 & 0 \end{smallmatrix} \right\}$	$\left\{ \begin{smallmatrix} 7 & 0 \\ 9 & 0 \end{smallmatrix} \right\}$	12 8	14 0	11 0	$\left\{ \begin{smallmatrix} 11 & 0 \\ 12 & 0 \end{smallmatrix} \right\}$	$\left\{ \begin{smallmatrix} 10 & 0 \\ 11 & 0 \end{smallmatrix} \right\}$	$\left\{ \begin{smallmatrix} 11 & 0 \\ 12 & 0 \end{smallmatrix} \right\}$	$\left\{ \begin{smallmatrix} 13 & 0 \\ 14 & 0 \end{smallmatrix} \right\}$	$\left\{ \begin{smallmatrix} 12 & 0 \\ 13 & 0 \end{smallmatrix} \right\}$	13 0	...	..	...
	44	Palamau	...	12 15	13 8	10 11	23 10	23 10	...	11 13	10 11	10 11	12 6	13 8	12 15	.	..	...
	45	Singhbhum	...	13 0	13 0	13 0	...	...	...	$\left\{ \begin{smallmatrix} 8 & 0 \\ 8 & 0 \end{smallmatrix} \right\}$	$\left\{ \begin{smallmatrix} 8 & 0 \\ 8 & 0 \end{smallmatrix} \right\}$	$\left\{ \begin{smallmatrix} 12 & 0 \\ 12 & 8 \end{smallmatrix} \right\}$	$\left\{ \begin{smallmatrix} 10 & 0 \\ 10 & 0 \end{smallmatrix} \right\}$	$\left\{ \begin{smallmatrix} 11 & 0 \\ 11 & 0 \end{smallmatrix} \right\}$	15 0	...	..	...
46	Manbhum		13 0	13 0	11 8	...	...	...	$\left\{ \begin{smallmatrix} 8 & 0 \\ 9 & 0 \end{smallmatrix} \right\}$	$\left\{ \begin{smallmatrix} 8 & 8 \\ 8 & 8 \end{smallmatrix} \right\}$	$\left\{ \begin{smallmatrix} 13 & 8 \\ 13 & 8 \end{smallmatrix} \right\}$	$\left\{ \begin{smallmatrix} 12 & 0 \\ 12 & 8 \end{smallmatrix} \right\}$	15 0	...	...	...		

U At Sirajganj the retail price of salt is 10½ seers per rupee.

V At Alipur the retail price of salt is 8 seers per rupee.

W At Jamui the retail price of salt is 10 seers per rupee.

X In the subdivisions the retail prices of salt per rupee are:—Banka 10 seers, Madhipura 10 seers, and Supaul 10 seers.

Y In the subdivisions the retail prices of salt per rupee are:—Kishanganj 10 seers and Araria 10 seers.

Z In the subdivisions the retail prices of salt per rupee are:—Deoghur 10½ seers, Godda 9 seers, Jamtara 9 seers, Pakur 10½ seers, Rajmahal 10 seers.

a In the subdivisions the retail prices of salt per rupee are:—Bihar 10½ seers and Dinapore 8½ seers.

b In the subdivisions the retail prices of salt per rupee are:—Jahanabad 10 seers, Aurangabad 10 seers, and Nawada 9 seers.

Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.
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[illegible]

1584a

			WHOLESALE PRICES PER MAUND OF 40 SEERS.			
FIREWOOD.		SALT.	SALT.			DISTRICTS.
Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.		
						Number.

	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	R. A. P.	R. A. P.	R. A. P.	Bogra.	23									
	0	90	0	90	0	9	12	9	12	9	8	3	13	4	4	0	0	3	14	0	Pabna.	24	
	0	200	0	200	0	10	8	10	8	9	12	3	10	6	3	10	6	3	10	9	Darjeeling.	25	
	0	120	0	120	0	8	0	8	0	8	0	4	12	0	4	10	0	4	10	0	Jalpaiguri.	26	
	0	120	0	160	0	10	0	10	0	7	0	3	15	0	3	15	0	4	0	0	Monghyr.	27	
	4	126	4	164	0	10	8	10	12	10	11	3	10	0	3	10	0	3	12	0	Bhagalpur.	28	
	0	320	0	...	10	0	10	0	10	0	10	3	10	0	3	10	0	3	5	0	Purnea.	29	
	0	160	0	120	0	10	0	10	0	9	8	4	0	0	4	0	0	3	18	0	Malda.	30	
	0	140	0	200	0	10	0	10	0	10	0	3	14	0	3	14	0	3	10	3	Sonthal Parganae.	31	
	0	130	0	130	0	11	0	11	4	11	8	3	12	0	3	10	0	3	8	0	Patna.	32	
	0	160	0	200	0	10	0	10	0	10	0	3	13	0	3	13	0	3	13	0	Gaya.	33	
	0	120	0	140	0	10	8	10	8	11	0	3	13	0	3	13	0	3	10	0	{ Shahabad.	34	
	0	176	0	176	0	10	4	10	4	10	4	3	14	6	3	14	6	3	8	0	Darbhangha.	35	
	0	160	0	160	0	11	0	11	0	10	8	3	10	0	3	10	0	3	11	0	Muzaffarpur.	36	
	0	180	0	160	0	10	8	10	8	10	8	3	12	0	3	12	0	3	12	0	Saran.	37	
	0	160	0	160	0	11	0	10	8	10	8	3	9	0	3	12	0	3	10	0	Champaran.	38	
	0	0	80	0	80	0	11	0	11	0	11	0	3	8	0	3	8	0	3	12	0	Cuttaek.	39
	0	0	80	0	80	0	12	0	12	0	10	0	3	6	0	3	5	0	3	9	0	Puri.	40
	0	160	0	160	0	11	0	11	0	11	0	3	9	0	3	9	0	3	10	0	Balasore.	41	
	0	0	240	0	240	0	9	0	9	0	9	0	4	8	0	4	4	6	4	0	Hazaribagh.	42	
	0	140	{ 140 to 160	8	4	8	0	9	0	4	14	0	5	0	0	4	5	0	0	Lohardaga.	43		
	...	...	...	8	2½	8	2½	7	5	...	...	...	...	...	...	...	...	...	...	Palamau.	44		
	0	100	0	120	0	9	0	9	0	9	0	4	6	0	4	6	0	4	6	0	Singbhum.	45	
	...	...	...	10	10	10	10	10	8	3	11	0	3	11	0	3	12	0	0	Mainbmum.	46		

1 salt per rupee are :—Buxar 11 seers, Sasaram 11 seers, and Bhabhua 9½ seers.  
 1 salt per rupee are :—Madhubani 11 seers and Samastipur 10 seers.  
 1 salt per rupee are :—Hajipur 10½ seers and Sitamarhi 11 seers.  
 1 seers per rupee.  
 1 salt per rupee are :—Jajpur 9 seers, Kondrapara 9 seers, and Banki 11½ seers.  
 9 seers per rupee.

At Giridih the retail price of salt is 11 seers per rupee.  
At Gobindpur the retail price of salt is 11 seers per rupee.

**Published for general information.**

M. FINUCANE,  
Offg. Secretary to the Govt. of Bengal.

PRICES-CURRENT (wholesale) of Food-grains, Firewood, and Salt

Number.	MARTS.	WHEAT.			BARLEY.			RICE, BEST SORT.			RICE COMMON.		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
		R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
1	Calcutta ...	3 2 9	3 3 0	3 6 0	2 5 0	2 5 0	2 7 0	5 5 0	5 2 0	4 12 0	4 1 0	4 0 0	3 8 0
2	Sirajganj ...	2 7 0	2 8 0	3 4 0	...	...	...	5 14 0	5 12 0	6 0 0	4 0 0	3 15 0	3 8 0
	Daoca ...	3 8 0	3 8 0	3 12 0	...	...	...	4 10 0	4 6 0	4 4 0	4 0 0	3 12 0	3 7 0
4	Narayanganj ...	...	...	...	...	...	...	4 10 0	4 0 0	3 5 0	4 0 0	3 9 0	3 0 0
5	Chittagong ...	4 0 0	4 0 0	4 0 0	...	...	...	4 5 6	4 4 0	5 0 0	3 13 0	3 8 6	3 12 0
6	Patna ...	2 3 3	Red. 2 7 0	2 8 9	1 9 0	1 14 6	2 0 0	4 0 0	4 0 0	4 0 0	2 13 3	2 10 3	3 1 8
		2 8 0	White. 2 14 0	2 11 6									
7	Balaore ...	3 12 0	3 12 0	3 8 0	3 12 0	3 12 0	3 12 0	4 0 0	4 4 0	3 12 0	3 1 0	3 0 0	2 14 0
8	Puri ...	4 3 0	4 0 0	4 5 0	...	...	...	5 0 0	5 0 0	5 5 0	3 0 0	3 0 0	3 5 0
9	Cuttack ...	3 4 0	3 2 0	5 0 0	...	...	...	3 10 0	3 10 0	4 8 0	3 0 0	2 12 0	3 6 0

• CALCUTTA,  
The 22nd August, 1893.



## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.											
			AIR PRESSURE.				WIND.		TEMPERATURE.					
			Mean barometric height, 8 A. M. reduced to 32°.	Mean reduced to sea-level and constant gravity, lat. 45°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.
ORISSA.	Puri	Puri	29.688	29.643	—	Variable	89	94.7	10th Aug.	70.6	13, 14, 17, 18 Aug.	92.3	80.2	86.2
		Gopalpore	29.697	29.658	+0.061	NW	210	93.2	15th	75.8	18th	89.5	77.3	83.4
		False Point	29.690	29.653	+0.053	W	206	92.5	16th	77.1	17th	90.1	78.6	84.4
	Cuttack	Cuttack	29.620	29.642	+0.047	W	65	92.2	14 to 17	75.8	17th	91.4	78.1	84.8
	Balasore	Balasore	29.642	29.645	+0.003	ENE	76	91.4	17th	76.7	18th	89.1	78.5	83.8
SOUTH-WEST BENGAL.	Midnapore	Midnapore	29.670	29.664	+0.063	Variable	44	93.3	15th	76.1	16th	90.6	78.0	84.5
	24-Parganas	Calcutta	29.688	29.653	+0.056	SWly	65	91.6	15th	77.2	16th	89.0	79.0	84.0
		Saugor Island	29.683	29.652	+0.056	Ely	219	89.2	15 to 17	78.0	18th	87.9	79.9	83.9
	Howrah Hooghly	...	...	...	...	...	...	...	...	...	...	...	...	...
	Nadia	Krishnagar	29.656	29.649	+0.059	SEly	64	91.3	16th	76.2	13th	89.2	78.0	84.1
SOUTH-EAST BENGAL.	Khulna Jessore	Jessore	29.682	29.662	+0.050	Calm	61	91.6	15 to 17	78.4	16th	89.0	79.5	84.7
	Burdwan	Burdwan	29.617	29.662	+0.063	Variable	25	92.1	15th	79.2	19th	90.0	80.5	85.3
		Raniganj	29.377	29.658	+0.063	SW	50	94.7	14, 15	75.9	13th	98.4	77.8	86.7
	Bankura	Bankura	29.380	29.628	+0.048	Calm	56	93.1	15th	75.1	16th	90.0	78.4	84.2
	Murshidabad	Berhampore	29.637	29.652	+0.037	Calm	50	90.1	15th	77.3	13th	88.3	79.5	83.9
NORTH BENGAL.	Pabna	Sirajganj	29.665	29.663	+0.035	Calm	32	87.1	16, 17	76.7	13, 14	85.4	74.4	81.9
	Bogra	Bogra	29.631	29.644	+0.060	Calm	47	90.2	17th	74.2	14th	87.6	76.9	82.3
	Rajshahi	Rampur Bhoalia.	29.639	29.640	+0.054	Variable	92	89.1	15, 17	75.1	14th	87.7	76.0	82.6
	Malda	Malda	29.596	29.628	—	SE	76	92.0	18th	78.3	13th	89.0	79.6	84.6
	Dinajpur	Dinajpur	29.582	29.658	+0.048	...	48	92.1	18th	76.2	16th	88.0	79.1	83.5
SOUTH BENGAL.	Rangpur	Rangpur	29.584	29.660	+0.041	Variable	87	90.8	17, 19	75.7	16th	87.4	77.6	82.6
	Jalpaiguri	Jalpaiguri	29.431	29.603	+0.057	NE	64	91.9	19th	72.6	16th	86.3	75.7	81.0
	Kuch Bihar	...	...	...	...	...	...	...	...	...	...	...	...	...
	Darjeeling	Darjeeling	22.387	—	+0.022	Ely	99	73.6	14th	54.1	15th	66.5	56.5	61.5
	Sikkim	Gnatong	18.089	—	—	SE	?	54.4	19th	34.1	17, 18	61.2	36.2	43.9
EAST BENGAL.	Chittagong	Chittagong	29.662	29.606	+0.026	Variable	55	89.2	17th	75.1	14th	84.1	76.5	81.3
	Chittagong Hill Tracts	Demagiri	...	...	...	...	...	Observations not received.					...	...
	Hackerkunge	Barisal	29.713	29.680	+0.063	Calm	54	91.8	15th Aug.	76.8	13, 17, 18 Aug.	89.4	78.3	83.9
	Noakhali	Noakhali	29.688	29.673	+0.027	E	84	89.5	17th	75.8	14th	86.4	77.5	82.0
	Faridpur	Faridpur	29.691	29.685	+0.048	E & Calm	50	88.5	17th	77.9	13th	85.6	80.1	82.9
NORTH BENGAL.	Dacca	Dacca	29.692	29.662	+0.035	SE	97	89.6	17th	76.7	13th	87.7	78.8	83.3
	Tippera	Comilla	29.700	29.683	+0.037	E & S	74	90.4	17th	74.8	14th	87.8	76.2	81.7
	Mymensingh	Mymensingh	29.658	29.668	+0.026	SEly	61	90.2	17th	74.6	14th	85.8	77.5	81.7
	Purnea	Purnea	29.676	29.648	+0.040	Calm	50	91.2	18, 19	78.2	13th	87.8	79.2	83.6
	Bhagalpur	Bhagalpur	29.526	29.638	+0.056	Calm	47	91.7	15, 18, 19	77.0	13, 16	90.0	78.6	84.3
SOUTH BENGAL.	Darbhanga	Darbhanga	29.518	29.636	+0.036	Ely	103	91.0	18th	77.2	16th	87.8	79.8	83.8
	Muzaffarpur	Muzaffarpur	29.509	29.634	—	WNW	89	90.2	18th	77.2	13, 19	87.7	78.0	83.2
	Champanan	Motihari	29.440	29.620	+0.032	Variable	153	92.2	18th	74.9	13, 16	88.6	77.2	82.9
	Saran	Chapra	29.507	29.639	+0.074	Variable	129	92.8	18th	76.6	19th	89.5	79.2	84.4
	Shahabad	Dehri	29.835	29.630	+0.068	W	61	93.4	18th	77.0	16th	91.5	78.6	86.1
SOUTH BENGAL.	Buxar	Buxar	29.445	29.637	+0.061	SWly	145	92.5	18th	77.7	19th	89.5	77.6	84.3
	Arrah	Arrah	29.487	29.628	+0.067	Wly	85	93.4	18th	78.5	14th	90.7	79.9	85.3
	Gaya	Gaya	29.804	29.659	+0.062	Variable	127	93.4	18th	77.8	13th	91.5	79.4	85.5
	Patna	Bankipore	29.633	29.630	+0.040	W	99	91.5	18th	78.2	14th	89.1	79.6	84.4
	Monghyr	...	...	...	...	...	...	...	...	...	...	...	...	...
CHOTA NAGPUR.	Boothal Parganas	Naya Duinka	29.202	29.645	+0.067	Wly	30	91.6	15, 18	77.2	13, 16, 17 & 18 Aug.	89.7	77.8	83.8
	Hazaribagh	Hazaribagh	27.720	29.662	+0.077	NW	204	85.2	18th	70.8	15th	85.6	72.1	78.9
	Lohardaga Palamau	Ranchi Daltonganj	27.582	29.854	+0.078	NW	159	87.0	17th	71.9	13th	84.9	72.4	78.7
	Singbhum Manbhum	Chaibassa	29.937	29.641	+0.072	Variable	31	92.4	17th	74.2	18th	90.4	76.3	83.4
	Sibsagar	Sibsagar	29.414	29.701	+0.031	SEly	—	91.1	18th	75.5	15th	87.0	78.0	82.5
ASSAM.	Goalpara	Dhubri	29.593	29.662	+0.068	Variable	105	87.2	18 & 19	73.8	15th	84.6	76.4	80.4
	Cachar	Silchar	29.638	29.693	+0.026	Calm	—	90.0	17th	74.8	13th	84.6	76.0	80.3

\* Mean of 6 days.

**Explanation.—Summary.**—The normal means of air pressure and temperature are the arithmetical average or means of the reading during the same period. The humidity of the atmosphere is expressed as percentage, saturated air being presented by 100. A clear sky is denoted by 0 and an overcast sky by 101. The normal mean are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional stations. The normal mean are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional stations. The normal mean are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional stations. A rainy day is one of



for the week ending Saturday, the 19th of August 1893.

DISTRICT OBSERVATIONS.															DISTRICT.
Variation from normal mean.	Mean 8 A.M. temperature.	Average humidity at 8 A.M.	Average cloud amount at 8 A.M.	Rainfall of week at observing station.	OF WEEK.				RAINFALL.						
					Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Since 1st of month.			Since 16th May 1893.			
									Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.	
—	83.5	82	4.0	0.59		2.03		3.06		7.68			20.80		Puri.
+0.3	81.4	86	3.9	4.60											
+1.7	85.2	81	0.9	0.93											
+0.9	83.2	77	4.4	0.91		2.44		3.57		6.95			30.61		Outtack.
+1.7	83.2	90	5.1	1.02		2.86		3.58		8.07			31.54		Salasore.
+1.5	83.1	85	4.4	0.54	0.52	2.61	2.25	3.30	4.79	8.90	—4.11	47.91	38.15	+14.76	Midnapore.
+1.7	82.6	87	5.4	0.72	0.86	3.44	1.71	4.11	0.84	8.88	—2.04	47.25	34.83	+12.02	24-Paraganas.
+0.8	83.5	90	9.4	1.88											
					1.39	2.60	2.00	4.08	4.33	8.34	—4.00	46.13	32.61	+13.52	Howrah.
					0.79	3.41	2.33	3.94	6.25	9.41	—3.16	43.36	33.39	+12.07	Hooghly.
+0.9	83.8	84	7.7	2.43	1.53	3.13	2.80	3.72	5.98	7.85	—1.83	44.29	30.85	+13.44	Nadia.
+1.5	83.3	90	8.1	0.48	0.76	3.14	1.33	3.95	11.16	8.78	+2.38	54.85	37.15	+17.70	Khulna.
+1.5	83.2	84	7.7	0.15	0.59	2.55	2.00	3.73	5.82	8.05	—2.23	38.47	32.79	+5.68	Jessore.
+2.4	82.7	85	1.0	0.41											
+1.1	82.1	87	6.6	1.41	0.93	2.50	2.00	3.88	6.04	8.87	—2.83	45.11	34.03	+11.08	Bankura.
+0.6	81.8	92	8.1	3.80	2.44	2.87	4.00	3.64	5.59	8.44	—2.85	38.40	33.20	+5.20	Hirbhum.
—1.1	81.1	91	8.9	1.11	2.37	2.88	2.50	3.52	7.40	7.91	—0.45	46.66	30.53	+16.13	Murshidabad.
—1.1	82.4	88	6.1	3.32	2.15	2.72	2.50	3.59	8.45	7.25	+1.20	45.11	36.67	+8.44	Pabna.
—0.2	83.8	85	5.4	2.48	2.79	2.31	3.33	3.70	8.38	6.91	+1.42	48.83	32.81	+16.07	Bogra.
—	83.8	88	3.3	0.84	0.79	2.44	2.00	3.43	6.64	7.34	—0.70	39.33	33.41	+5.92	Rajshahi.
—0.1	82.4	87	7.7	1.27	0.56	2.90	1.60	3.76	7.08	7.50	—0.47	47.82	39.99	+10.83	Malda.
—0.3	81.7	88	4.9	1.26	1.26	2.86	2.09	3.32	10.48	7.36	+3.07	61.96	49.58	+12.40	Dinajpur.
—0.9	80.4	89	7.7	3.69	4.08	5.24	3.00	4.80	20.94	15.14	+5.80	85.68	77.47	+8.21	Jalpaiguri.
				4.16	4.18	3.00	3.55	3.55	13.89	13.40	+0.49	81.33	73.28	+11.05	Kuch Bihar.
+0.2	80.1	93	9.1	3.55	8.29	5.61	5.00	4.82	23.35	17.46	+5.89	92.18	87.40	+4.78	Darjeeling.
—	47.8	91	10.0	7.43											Sikkim.
+1.2	80.1	94	9.1	7.14	5.26	6.58	4.50	4.98	19.71	17.78	+1.93	115.70	81.58	+34.17	Onitacodg.
					4.74	4.89	6.00	5.35	13.13	13.55	—0.42	82.58	54.71	+27.87	Chittagong Hill
+2.2	80.8	90	9.9	1.03	1.11	3.96	3.00	4.79	10.00	10.95	—0.95	63.33	61.26	+14.13	Traoia.
+0.8	81.0	93	4.1	1.92		5.57		5.38		17.28			71.43		Backergunge.
+0.2	81.8	91	0.9	0.83	2.05	2.78	2.33	3.84	8.80	8.20	+0.60	51.58	36.20	+15.38	Noakhali.
+0.3	81.2	92	8.6	1.22	0.83	2.70	2.00	3.97	10.82	9.12	+1.70	52.64	39.58	+13.06	Faridpur.
—0.3	79.3	96	7.9	4.35	2.31	4.90	3.25	4.40	11.85	11.78	—0.03	56.31	45.06	+10.75	Dacca.
—0.9	80.7	91	8.0	3.13	3.33	3.08	2.20	3.94	14.06	8.76	+5.30	69.43	44.12	+25.37	Tippera.
+0.2	82.5	88	4.9	1.05	1.53	2.80	2.67	3.86	11.68	8.84	+2.82	54.04	40.34	+13.70	Mymensingh.
+0.2	83.9	84	0.4	0.10	0.37	2.35	1.25	3.27	7.28	7.17	+0.11	31.42	28.00	+3.42	Purnea.
+0.2	82.8	86	5.4	0.70	0.57	2.39	1.00	3.00	8.47	6.69	+1.78		27.24		Bhagalpur.
—	81.9	89	5.9	2.45	1.58	2.23	1.07	2.67	7.50	6.02	+0.88	31.78	26.01	+5.77	Darbhanga.
—0.7	82.4	85	5.7	0.64	1.22	2.75	2.00	2.74		8.03			24.89		Muzaffarpur.
+1.2	83.1	85	8.0	2.27	1.76	1.92	1.33	2.70	7.30	6.32	+0.98	20.84	25.81	+5.47	Chhaparan.
+2.5	85.0	71	0	0.09											Saran.
+0.2	82.8	83	6.0	0.08	0.31	2.47	0.40	2.61		7.29			24.53		Shahabad.
+1.3	83.2	85	0.7	Nil											
+1.4	82.4	84	4.9	Nil	0.30	2.17	0.25	2.79	4.83	7.33	—2.50		26.16		Daya.
+0.3	84.0	81	7.9	0.43	0.34	2.05	1.00	2.50	5.95	6.48	—0.53	31.32	25.86	+5.46	Patna.
					0.10	2.41	0.33	3.03	6.04	7.23	—1.19	31.50	26.86	+4.73	Monahyr.
+0.7	82.8	89	2.4	1.37	0.83	2.71	1.00	3.73	8.55	7.71	+0.84	48.25	31.54	+11.71	Southal Paraganas.
+0.6	77.3	85	9.4	0.34		3.00		3.58		8.61			31.93		Hazaribagh.
+1.1	76.3	85	3.7	0.23	0.23	3.10	0.50	3.87	9.08	9.35	—0.27		32.43		Lohardaga.
					1.50			3.15		6.92			28.62		Palamau.
+0.3	80.9	84	6.6	2.20	2.20	2.63	3.00	3.75	8.41	9.40	—1.05	41.34	34.56	+7.78	Sinhhbhum.
					1.98	2.74	2.50	3.40	7.93	8.79	—0.86	49.26	39.24	+10.02	Manbhum.
—1.3	80.4	92	0.3	8.38											Assam.
—2.0	79.0	92	7.7	1.83											
—2.4	78.8	92	9.4	4.54											

for the last ten years. The variations are *negatives* when the mean for the week is less than the corresponding normal mean, and *positives* when greater. The numbers denoting cloud amount represents the part of the sky covered the whole sky being denoted by 10. Under the head District observations of for the period in question during the last ten years. The means of the district are the numerical average of the rainfall returned received in the which at least a tenth of an inch fell.







**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSER-  
VATIONS TAKEN IN ASSAM, FOR THE WEEK ENDING 8 A.M.,  
SATURDAY, THE 19TH OF AUGUST 1893.**

DURING the past week pressure has been steadily above the normal, but by varying amounts, over the province, and the distribution has been much more uniform over the Bay than is usual at this season of the year. The result has been that rainfall has been generally light and scattered, and that the falls at most stations are much below the average. One unimportant interruption to the otherwise settled conditions occurred about the middle of the week, when a shallow depression which appears to have formed in Burma drifted slowly westwards across the north of the Bay, and about the end of the week crossed the Ganjam coast. The influence of this slight disturbance extended over a wide area so far as concerned the wind circulation, but except that showers were somewhat more frequent and heavy in Orissa, Chota Nagpur and some of the south-western districts of Bengal, there was little other change, while over the north of the Bay light northerly and afterwards easterly winds prevailed.

During the two first days of the week pressure was lowest near the Himalayas, and westerly winds were general over the whole province, but on Tuesday, the 15th, a large rise of pressure occurred in the northern districts and a slow fall over the Bay. This led to easterly winds in the eastern districts, and as similar changes, though not so large, continued on the following day, a light cyclonic circulation existed round the low pressure area which was then over the north of the Bay. During the last three days there was little change in the general weather. The sky was moderately cloudy in places, but as a rule there was sunshine with occasional thunderstorms and local rainfall.

*Pressure* was above the normal except on Monday, the 14th, when lowest readings were in the northern districts, and there was defect of about  $\cdot 07$  inch. The rise on the 15th was more than  $\cdot 1$  inch in these parts, and from that time excess varied between  $\cdot 05$  inch and  $\cdot 1$  inch; but on Saturday, the last day of the week, it exceeded  $\cdot 1$  inch in all districts except Orissa and Chota Nagpur. The distribution was then very uniform, and as isobars lay almost north and south, light easterly winds prevailed. Means for the week are above the normal at all stations, generally by about  $\cdot 05$  inch.

*Temperature.*—As there has been more sunshine than usual during the week, day temperatures have been above the normal over the greater part of the province. From the 13th to the 16th mean temperature differed very little from the normal, or was slightly below, the cooler weather being in the northern districts, especially in North Bengal and Assam. During the latter half of the week there was excess, practically everywhere, up to about  $4^{\circ}$  in some places. The means for the larger divisions for the whole week are above the normal, except in North Bengal, where there is defect of about half a degree, and in Assam where defect is nearly  $2^{\circ}$ . Excess is under  $1^{\circ}$  in East Bengal, Chota Nagpur and North Bihar, and between  $1^{\circ}$  and  $1\cdot 5^{\circ}$  in Orissa, South-West Bengal and South Bihar.

*Rainfall.*—As stated above, rainfall has been scattered and frequently light. In North Bengal almost general rain fell in the early part of the week, but during the latter half scattered showers fell there as over the rest of the province. The days when rainfall was most general were Sunday, the 13th, Wednesday, the 16th, and Saturday, the 19th. On all of these days the rain was due in most cases to local thunderstorms which were fairly numerous, and not to prevalence of ordinary monsoon conditions. The average falls for the large divisions vary from  $2\cdot 4$  inches in Bihar to  $3\cdot 84$  inches in East Bengal. These averages are all relatively low.

Defect in North Bengal is  $1$  inch; in East Bengal and North Bihar between  $1$  and  $1\cdot 5$  inches; in Orissa, South-West Bengal, and Chota Nagpur between  $1\cdot 5$  and  $2$  inches, and in South Bihar rather more than  $2$  inches.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 19th of August 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.							RAINFALL.										
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.		Since 16th May 1898.			
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.		
Orissa	...	...	94.7	75.8	80.5	78.5	84.5	+1.2	1.15	2.70	-1.55	2.00	3.60	-1.60	5.35	7.01	34.70	30.69
South-West Bengal	...	...	94.7	75.1	89.8	79.1	84.5	+1.4	1.10	2.04	-1.84	2.22	3.00	-1.38	6.29	8.45	44.08	32.79
North Bengal	...	...	92.1	72.6	87.4	77.6	82.5	-0.6	2.07	3.06	-0.90	2.40	3.68	-1.28	0.87	8.57	55.25	45.24
East Bengal	...	...	91.8	74.6	86.9	77.9	82.4	+0.5	2.50	3.54	-1.34	3.20	4.30	-1.10	12.41	11.06	61.98	40.82
North Bihar	...	...	92.8	74.9	88.0	78.8	83.7	+0.2	1.11	2.40	-1.29	1.30	3.04	-1.54	8.58	7.24	37.08	29.60
South Bihar	...	...	96.4	77.0	90.3	78.8	84.7	+1.1	0.37	2.40	-2.03	0.64	3.02	-2.38	6.12	7.26	32.59	27.23
Chota Nagpur	...	...	92.4	70.8	87.0	73.6	80.3	+0.7	1.10	2.83	-1.73	2.10	3.58	-1.48	6.86	8.70	40.88	31.46
Assam	...	...	91.1	73.8	85.4	76.8	81.1	-1.0										

\* Daltonganj not included.

METEOROLOGICAL OFFICE, BENGAL,  
The 22nd August 1893.

C. LITTLE,  
Offg. Meteorological Reporter to the Govt. of Bengal.

### Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 13th to 19th August 1893.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.						HYGROMETRY.			Rainfall, past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
August ...	13th ...	29.711	84.9	90.0	10.2	79.8	84.2	80.5	.992	79.0	84	Nil
" ...	14th ...	.640	85.9	93.0	14.2	78.8	89.6	83.5	1.066	81.2	77	"
" ...	15th ...	.659	85.6	90.1	9.6	80.8	88.6	81.5	.981	78.6	73	"
" ...	16th ...	.692	84.5	91.0	13.0	78.0	88.1	82.0	1.012	79.6	76	0.94
" ...	17th ...	.682	84.9	90.0	10.2	79.8	87.6	82.5	1.011	80.6	80	"
" ...	18th ...	.716	85.3	91.2	11.9	79.3	86.6	80.5	.950	78.0	76	"
" ...	19th ...	.763	84.6	90.8	12.5	78.3	85.6	81.5	1.022	79.9	83	0.04

The mean 10 A.M. pressure of the seven days ... .. Inches. 29.695

The mean temperature of the seven days ... .. 85.1

The extreme variation of temperature ... .. 15.0

The maximum temperature ... .. 93.0

The mean 10 A.M. relative humidity of the seven days ... .. % 78

The total fall of rain from 13th to 19th August 1893 ... .. Inch. 0.98

The daily mean temperatures are the crude means of maximum and minimum temperatures.

J. H. GILLILAND,  
For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA,  
The 21st August 1893.

Results of the Meteorological Observations taken at the Alipore Observatory from  
13th to 19th August 1893.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
Augt.	13th	119.7	Nil	29.650	83.2	85.7	5.0	80.7	79.9	0.977	78.5	86	SW and W by S...	65	Nil	Cloudy, o, g.
"	14th	150.6	9.8	.605	85.0	91.6	13.1	78.5	80.7	.991	79.0	83	W by S. WNW and calm.	64	"	Partially cloudy, d.
"	15th	145.5	Nil	.643	82.3	89.5	12.0	77.5	79.6	.977	78.5	89	WSW and N by W	37	0.69	Cloudy, o, g, p, t.
"	16th	142.5	6.1	.647	83.4	90.6	13.2	77.1	80.0	.980	78.0	86	NNE and calm ...	31	Nil	Partially cloudy, o.
"	17th	149.5	5.9	.633	84.5	89.5	9.2	79.3	79.8	.955	77.8	80	ESE and calm ...	66	"	Partially cloudy, o, g. d.
"	18th	151.6	5.5	.673	82.8	89.3	10.3	79.0	79.3	.955	77.8	85	ESE and SE by E	79	0.03	Partially cloudy, t, d.
"	19th	153.2	3.3	.709	82.4	89.3	11.1	78.2	79.7	.979	78.6	88	SE by E and SSE	79	0.09	Chiefly cloudy, o, p. d.

The mean pressure of the seven days ...	...	...	...	Inches.	29.651
The average pressure of the corresponding period for 24 years, Surveyor-General's Office ...	...	...	...	...	29.587
The total number of hours of bright sunshine ...	...	...	...	Hours.	30.6
The maximum possible number of hours of sunshine ...	...	...	...	...	90.0
The mean temperature of the seven days ...	...	...	...	...	83.4
The average temperature of the corresponding period for 24 years, Surveyor-General's Office ...	...	...	...	...	83.1
The extreme variation of temperature ...	...	...	...	...	14.2
The maximum temperature ...	...	...	...	...	91.6
The highest velocity of the wind in one hour ...	...	...	...	Miles.	10
The highest pressure of wind on one square foot ...	...	...	...	lbs.	?
The mean relative humidity ...	...	...	...	%	85
The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office ...	...	...	...	...	87
The total fall of rain from 13th to 19th August 1893 ...	...	...	...	Inches.	0.81
The average fall of the corresponding period for 24 years, Surveyor-General's Office ...	...	...	...	...	3.74
The total fall from 1st January to 19th August 1893...	...	...	...	...	64.94
The average fall of the corresponding period for 24 years, Surveyor-General's Office ...	...	...	...	...	43.62

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h and 22.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o, overcast; g, gloomy; d, drizzling rain; p, passing temporary showers; t, thunder; <, lightning; d, dew.

## CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 19th August 1893,  
as compared with the corresponding week of the previous year*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 19TH AUGUST 1893.			WEEK ENDING SATURDAY, THE 20TH AUGUST 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ... ..	389	88,390	1,066	178	45,200	732
Jute ... ..	59	22,751	418	61	19,475	327
Firewood ... ..	159	82,577	1,249	133	66,975	1,017
Other articles ... ..	797	2,05,396	2,782	790	1,72,640	2,377
Total ... ..	1,404	3,99,114	5,515	1,162	3,04,290	4,443



## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 12th August 1893, on 1,610½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	268,268	Rs. A. P. 3,57,412 14 0	Mds. s. 21,06,145 30	Rs. A. P. 4,55,970 4 0	Rs. A. P. 14,227 4 0	Rs. A. P. 8,27,640 0 0	76,676½	89,311	165,984½
Or per mile of railway ...	.....	221 14 0	.....	283 1 11	8 13 8	513 14 5	.....	.....	.....
For previous 51 weeks of half-year ...	1,515,933	16,04,091 11 0	1,03,87,553 10	23,41,837 13 0	82,850 7 0	40,48,779 15 0	862,648½	482,014	874,662½
Total for 6½ weeks ...	1,804,201	20,21,504 9 0	1,24,93,639 0	27,67,808 1 0	97,107 11 0	49,16,420 5 0	469,323	571,825	1,040,647
COMPARISON.									
Total for corresponding week of previous year ...	268,868	2,41,134 7 10	17,53,240 10	3,89,931 4 11	14,720 2 3	6,45,775 15 0	73,552	79,624	153,176
Per mile of railway corresponding week of previous year ...	.....	149 11 7	.....	242 1 10	9 2 8	400 15 8	.....	.....	.....
Total for corresponding 6½ weeks of previous year ...	1,611,923	14,91,786 8 2	1,33,04,111 30	28,88,388 13 0	99,854 14 10	44,79,980 4 6	469,439	571,185	1,030,624

\* The increase is chiefly due to movements of pilgrims.

## TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 12th August 1893, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	16,643	Rs. A. P. 3,034 14 0	Mds. s. 9,823 30	Rs. A. P. 242 9 0	Rs. A. P. 11 0 0	Rs. A. P. 4,186 7 0	809	69	968
Or per mile of railway ...	.....	176 13 7	.....	10 14 5	0 7 11	188 3 11	.....	.....	.....
For previous 51 weeks of half-year ...	91,604	22,342 1 0	138,071 10	1,119 0 0	162 0 0	23,513 1 0	4,642	480	5,068
Total for 6½ weeks ...	108,247	26,276 15 0	47,895 0	1,361 9 0	63 0 0	27,701 8 0	5,541	489	6,030
COMPARISON.									
Total for corresponding week of previous year ...	17,196½	4,095 11 5	4,039 30	196 4 8	12 13 0	4,304 12 5	919	49	968
Per mile of railway corresponding week of previous year ...	.....	184 1 3	.....	8 13 1	0 9 3	193 7 7	.....	.....	.....
Total for corresponding 6½ weeks of previous year ...	128,389½	30,905 8 3	35,756 30	1,486 8 0	56 8 0	32,508 8 3	5,821	361	6,182

\* Deducted number of passengers 801 and Rs. 202½ on account of difference between the approximate and audited figures for the first 8 days of July 1893.  
 † Added maunds 99  
 ‡ Deducted

## DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for week ended 12th August 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	18,381	Rs. A. P. 13,154 13 0	Mds. s. 42,224 10	Rs. A. P. 8,085 15 0	Rs. A. P. 39 0 0	Rs. A. P. 21,279 12 0	6,154	2,521½	8,675½
Or per mile of railway ...	.....	81 8 1	.....	50 1 7	0 3 19	131 13 0	.....	.....	.....
For previous 51 weeks of half-year ...	109,645	73,881 13 0	1,91,523 30	131,078 0 0	1189 0 0	1,06,748 13 0	31,234	14,157½	45,391½
Total for 6½ weeks ...	128,026	87,036 10 0	2,33,748 0	39,703 15 0	228 0 0	1,27,028 9 0	37,398	16,679	54,067
COMPARISON.									
Total for corresponding week of previous year ...	16,853½	12,086 12 5	20,814 0	4,865 12 0	19 15 0	17,582 7 5	6,735	2,315	9,050
Per mile of railway corresponding week of previous year ...	.....	78 10 8	.....	30 2 4	0 2 0	108 15 0	.....	.....	.....
Total for corresponding 6½ weeks of previous year ...	109,773½	75,009 7 3	2,45,755 0	33,252 7 6	240 7 6	1,13,593 6 3	40,753	15,995	56,748

\* Added number of passengers 263 and Rs. 0018½ on account of difference between the approximate and audited figures for the first 8 days of July 1893.  
 † Do. maunds 10,487 and  
 ‡ Deducted

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K.-D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for the week ended 12th August 1893, on 777 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	154,219	68,090 0 0	6,16,850 0	1,31,170 0 0	13,390 0 0	2,12,020 0 0	28,166	27,403	55,569
Or per mile of railway ...	198	88 0 0	794 0	169 0 0	*2 0 0	*230 0 0	.....	.....	.. ..
For previous 5 weeks of half-year ...	802,510	3,69,430 0 0	28,67,130 0	5,27,030 0 0	71,010 0 0	9,07,470 0 0	142,851	127,352	270,203
Total for 6 weeks ...	1,056,720	4,37,520 0 0	34,83,860 0	6,58,200 0 0	84,370 0 0	11,80,900 0 0	171,017	154,755	325,772
COMPARISON.									
Total for corresponding week of previous year ...	141,409	66,956 0 0	6,11,631 0	1,47,004 0 0	11,644 0 0	2,16,204 0 0	26,002	33,002	61,004
Per mile of railway corresponding week of previous year ...	182	73 0 0	786 0	190 0 0	*1 0 0	*264 0 0	.....	.....	.....
Total to corresponding date of previous year ...	932,270	3,80,518 0 0	32,70,585 0	7,14,112 0 0	94,531 0 0	11,89,164 0 0	169,743	194,818	361,561

\* Excluding steamer earnings.

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for the week ended 12th August 1893, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	35,670	10,680 0 0	47,350 0	4,040 0 0	120 0 0	14,840 0 0	3,201	2,471	5,672
Or per mile of railway ...	285	86 0 0	379 0	32 0 0	1 0 0	119 0 0	...	...	.....
For previous 5 weeks of half-year ...	174,190	54,760 0 0	2,08,750 0	15,320 0 0	450 0 0	70,530 0 0	19,829	9,317	29,200
Total for 6 weeks ...	209,860	65,440 0 0	2,56,100 0	19,360 0 0	570 0 0	85,370 0 0	23,033	11,788	34,821
COMPARISON.									
Total for corresponding week of previous year ...	30,133	9,660 0 0	49,361 0	4,325 0 0	62 0 0	14,047 0 0	3,201	2,471	5,672
Per mile of railway corresponding week of previous year ...	241	77 0 0	395 0	35 0 0	...	112 0 0	...	...	.....
Total to corresponding date of previous year ...	194,878	59,542 0 0	2,61,627 0	18,515 0 0	591 0 0	78,051 0 0	23,689	11,908	35,597

## DACCA STATE RAILWAY.

Approximate Return of Traffic for the week ended 12th August 1893, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	13,300	4,290 0 0	23,800 0	1,240 0 0	60 0 0	5,590 0 0	2,570	654	3,224
Or per mile of railway ...	155	50 0 0	277 0	14 0 0	1 0 0	65 0 0	...	...	...
For previous 5 weeks of half-year ...	83,920	24,540 0 0	63,350 0	4,360 0 0	900 0 0	29,800 0 0	12,799	3,701	16,500
Total for 6 weeks ...	97,220	28,830 0 0	87,150 0	5,600 0 0	960 0 0	35,390 0 0	15,369	4,445	19,814
COMPARISON.									
Total for corresponding week of previous year ...	14,404	4,636 0 0	19,086 0	871 0 0	284 0 0	5,821 0 0	2,570	654	3,224
Per mile of railway corresponding week of previous year ...	169	54 0 0	141 0	10 0 0	4 0 0	68 0 0	...	...	...
Total to corresponding date of previous year ...	93,305	29,708 0 0	76,301 0	5,130 0 0	1,406 0 0	36,244 0 0	16,337	4,127	20,464

## BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIRHUT STATE RAILWAY.)

*Approximate Return of Traffic for the week ending 5th August 1893, on 756 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-bust.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs.	Mds.	Rs.	Rs.	Rs.	•		
Total traffic for the period on 756 miles open ... ..	86,810	33,180	1,90,680	25,590	10,080	68,850	13,047	16,173	28,220
Or per mile of railway ... ..	114'83	43'89	260'42	33'85	13'43	91'07	.....	.....	.....
For previous 5½ weeks of half-year ... ..	368,600	1,47,190	10,13,520	1,49,540	46,630	3,43,360	64,080	65,174	119,204
Total for 5½ weeks ... ..	455,410	1,80,370	12,10,400	1,75,130	56,710	4,12,210	67,077	80,347	147,424
COMPARISON.									
Total for corresponding period of previous year on 755 miles open ... ..	60,807	27,825	2,51,779	31,375	8,958	68,158	13,236	10,408	29,648
Per mile of corresponding week of previous year ... ..	92'31	36'85	338'48	41'50	11'87	90'28	.....	.....	.....
Total to corresponding date of previous year ... ..	433,749	1,55,164	14,01,540	1,93,084	49,443	3,89,291	68,776	90,305	159,041

## BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIRHUT STATE RAILWAY.)

*Approximate return of traffic for the week ending 12th August 1893, on 756 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-bust.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs.	Mds.	Rs.	Rs.	Rs.			
Total traffic for the period on 756 miles open ... ..	87,320	32,070	1,71,220	25,140	9,800	60,800	13,040	15,235	28,275
Or per mile of railway ... ..	115'50	42'42	230'45	33'25	12'60	88'36	.....	.....	.....
For previous 5½ weeks of half-year ... ..	455,410	1,80,370	12,10,410	1,75,180	56,710	4,12,210	67,077	80,347	147,424
Total for 6½ weeks ... ..	542,730	2,12,440	13,81,620	2,00,270	66,300	4,78,010	80,117	95,582	175,699
COMPARISON.									
Total for corresponding period of previous year on 755 miles open ... ..	81,085	31,530	2,27,103	28,127	6,790	61,477	15,063	12,160	27,223
Per mile of corresponding week of previous year ... ..	107'41	41'30	300'80	34'61	8'99	80'40	.....	.....	.....
Total to corresponding date of previous year ... ..	514,844	1,86,724	17,21,648	2,10,811	47,233	4,53,768	83,839	102,425	186,264

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

	Rs.	A.	P.
Approximate earnings for the week ending 5th August 1893 ... ..	8,818	0	0
Corresponding period of 1892 ... ..	8,605	0	0
Increase ... ..	213	0	0
Receipts per mile for the week ending 5th August 1893... ..	172	14	5
Corresponding period of 1892 ... ..	168	11	6
Increase ... ..	4	2	11
Receipts from 1st to 5th August 1893 ... ..	55,269	0	0
Corresponding period of 1892 ... ..	54,760	0	0
Increase ... ..	509	0	0





# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, AUGUST 30, 1893.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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## RESOLUTION ON THE REPORT ON THE ADMINISTRATION OF THE POLICE DEPARTMENT FOR THE YEAR 1892.

No. 4149J.

### RESOLUTION.

POLICE.

*Dated Calcutta, the 19th August 1893.*

READ—

The Report on the Administration of the Police Department for the year 1892.

Read also—

The Report for the year 1891, and the orders of Government recorded thereon.

Mr. E. R. Henry was in charge of the office of Inspector-General of Police throughout the year. The report under review was due to Government on the 30th June, and was received in print on the 11th July. In accordance with the orders of Government some supplementary figured statements have been added to the report, and fuller details have been given regarding charges made against the police, the state of the village watch, and other important matters.

2. *Constitution of the Police force.*—At the close of the year the sanctioned strength of the police force, excluding the Railway Police, was 74 superior officers, and 22,713 subordinate officers and men, being a net increase of seven head constables and 24 town chaukidars, and a net decrease of 107 constables. The strength of the Railway Police at the close of the year was

two superior officers and 601 subordinate officers and men, against two superior officers and 621 subordinate officers and men at the close of the preceding year.

3. *Expenditure of the Department.*—The police budget grant for the year was Rs. 43,97,000, and the actual expenditure under each of the different heads, as compared with that of the preceding year, was as follows:—

Serial number.	HEADS OF CHARGES.	Actual expenditure for 1891-92.	Actual expenditure for 1892-93.	Increase.	Decrease.
1	2	3	4	5	6
		Rs.	Rs.	Rs.	Rs.
1	Inspecting agency ... ..	1,23,387	1,36,737	13,350	.....
2	Pay of District and Assistant Superintendents ... ..	4,60,133	4,47,145	.....	12,988
3	Pay of executive police and establishment, with good conduct pay and batta allowance ... ..	28,33,148	28,67,294	34,146	.....
4	Travelling allowance ... ..	92,038	93,303	1,265	.....
5	Fixed boat establishment ... ..	56,983	55,946	.....	1,037
6	Special, regular and contract contingencies ... ..	5,14,882	5,65,368	50,486	.....
7	Government contribution to the Municipal and Railway Police ... ..	1,45,622	1,37,922	.....	7,700
	Total ... ..	42,26,193	43,03,715	99,247	21,725
		Net increase ... ..		77,522	

There was thus a saving of Rs. 93,285 on the estimate for the year, but an increase of Rs. 77,522 in the actual expenditure over the figures for 1891. This is accounted for mainly by the increased provision for clothing on account of maintenance and free kits, the issue of new breech-loading carbines, and the increase in the pay of constables from Rs. 6 to Rs. 7 per mensem in the districts of Bengal Proper.

4. *Working of the Town Police.*—The Inspector-General of Police again brings to notice the exceptional difficulties under which the Town Police have to work, and the general unpopularity of town duty. Among other measures that have been taken to increase the efficiency of the force beats have been enlarged, so that two men may do duty on each beat instead of one, the number of rounds officers has been increased, truncheons and bulls-eye lanterns have been supplied to the men, and maps have been prepared showing the limits of beats as well as the streets and lanes included in them. In some towns in the Patna Division a self-checking system of patrols has been introduced, which enables the officer in charge to ascertain whether the rounds visited any particular lane or street during the preceding night. The experiment is reported to have worked well on the whole, especially in Patna City, where 39 burglars or thieves were arrested *flagrante delicto* by the police on going their rounds. Since the close of the year a proposal to place the police-stations in the Patna City in telephonic communication with each other has been sanctioned by Government. These are all useful reforms. In accordance with the policy recommended by the Lieutenant-Governor in the Resolution on last year's Report, steps are being taken to substitute chaukidars on an adequate salary for constables in towns where the population is peaceful, and where lawlessness arising from religious animosities or other causes is not apprehended. In the municipalities of the Burdwan and Backergunge districts, and in Puri and Jessore, the town police, consisting of a mixed force of constables and chaukidars, are reported to have worked well; on the other hand the working of the force in Khulna was unsatisfactory, and the pay of the chaukidars is said to be insufficient to attract good men. The same complaint of insufficiency of pay is made in Rangpur, Sirajganj, Faridpur, Mymensingh, and Bhagalpur. In Dacca and Narainganj, and in the towns of the Chittagong Division, as well as in Darjeeling and Kurseong, chaukidars are not employed, and the town police are said to have worked well. With the exception of Gaya and Darbhanga, the work of the police in the towns of the Patna Division was satisfactory, but the Inspector-General notices that the town police force in Champaran is numerically insufficient, and that its members are underpaid, and he promises to give the matter his personal attention. On the whole, although much still remains to be done, the Lieutenant-Governor sees no reason to be dissatisfied with the progress made during the year in improving the working of the town police.

5. *Street-lighting*.—Some progress has been made this year in this respect, and 505 new lamps have been added in the whole province. There are still no lights in the towns of Khulna and Malda, and in four of the municipalities of the Midnapore district. The Inspector-General reports that, in accordance with the suggestion contained in last year's Resolution, a considerable number of small municipalities which are unable to afford street lamps, have either provided or agreed to provide oil for the lanterns of the watch and ward police.

6. *Rural Police*.—From Statement E appended to the Report, it appears that there are the following chaukidars in the province:—

Under Act VI (B.C.) of 1870	...	...	96,787
Under Regulation XX of 1817	...	...	47,959
Number of chakran chaukidars, including ghât police	...	...	24,335
Chaukidars entertained under Sonthal rules in Sonthal Par-ganas	...	...	2,709
Chaukidars in Burdwan paid by villagers	...	...	282
Total			172,072

The number of chaukidars in Bengal in 1891 was 171,547, of whom 92,100 were under Act VI. By the amending Act I (B.C.) of 1892, which came into force at the close of the year, the definition of village permits the extension of the Act to villages with less than 60 houses, while the minimum rate of the chaukidar's pay has been reduced to Rs. 2. Magistrates are now therefore in a position to take measures for the more complete extension of the provisions of Act VI, and to reduce the number of regulation and chakran chaukidars. The Lieutenant-Governor notices that some progress has been made in this direction, and that efforts have been made to weed out men of disreputable castes or antecedents, and to substitute for them men of better social status. In all districts the arrangements for holding chaukidari parades and eliciting information from chaukidars have been systematised, and District and Assistant Superintendents are reported to have given more attention to this important branch of their work than in former years.

7. In paragraph 9 of last year's Resolution, the Lieutenant-Governor expressed a hope that local officers would be more liberal to chaukidars in the matter of rewards and less indiscriminate in punishments. In the latter respect there has been practically no change, and the Inspector-General draws attention to the want of discretion sometimes shown in prosecuting chaukidars under the Indian Penal Code for such slight offences as absence from parade, &c., for which departmental notice would have sufficed. This is very unsatisfactory, and the Lieutenant-Governor desires that the Inspector-General will admonish officers who are found to offend in this way. There has been a slight increase in the number of chaukidars rewarded, but the figures show that there is still room for improvement. During the year 1,444 chaukidars, or less than 1 per cent. of the force, were rewarded with Rs. 7,644, against 957 rewarded with Rs. 5,505 in 1891. In this respect Bengal compares unfavourably with the North-Western Provinces, in which, in 1891, out of 97,455 chaukidars 10,180 were rewarded with Rs. 22,183. Under the amended law a District Chaukidari Reward Fund has been created, which will enable district officers to adequately reward good work done by the village police.

8. The Inspector-General notices the great disproportion in the number of chaukidars in the Burdwan Division, as compared with other divisions of the Province. Thus, although the population in the Burdwan, Rajshahi, and Presidency Divisions is practically the same, the former maintains 41,703 chaukidars against less than 17,000 in each of the others. There is but little doubt that the village watch in the Burdwan Division urgently needs reorganizing, and that the numbers are unmanageably large and out of all proportion to its requirements. In Jessore, Tippera, Mymensingh, Faridpur, Chittagong and other districts, and especially those of the Patna Division, the rate of pay is reported to be too small to attract good men, and the chaukidars have in consequence to be recruited from the lower classes of society. No doubt we should get better men for higher pay, but even without an increase of pay a good deal may be done to improve the condition of the chaukidar, by assuring to him the punctual

payment of his salary and by taking care that Police constables and higher officers do not abuse their powers by employing him on menial work and other duties not contemplated by law. The Officiating Lieutenant-Governor notices that in the district of Backergunge not only is the village watch said to be the best organized, the most efficient, and the most regularly paid in the Province, but it includes a considerable number of men of good social status. In fact, so popular has the post become, and so keen is the competition for it, that only literate men are now appointed. Such a result reflects credit on Mr. Savage, the District Magistrate, and there is no reason why a similar success should not be attained in many other districts of the Province. The Officiating Lieutenant-Governor is glad to receive the Inspector-General's assurance that the police are beginning to realise that they must not employ chaukidars in their private concerns, or exact from them tasks of a degrading character. The instructions of Government on the subject have been widely circulated, and if the facts as reported from Jessore are correct and common to other districts, it will apparently be necessary to enforce against members of panchayets and influential villagers also the prohibition against employing the chaukidars in their private concerns.

9. *Additional Police.*—In the Madhubani sub-division of the Darbhanga district, a force of one Sub-Inspector, two head-constables and 20 constables was appointed for one year to maintain peace in certain villages which were in a disturbed state. Additional police have also been appointed in the Dacca and Khulna districts, while the force previously deputed to Backergunge was maintained throughout the year. The additional force of 2 head-constables and 20 constables deputed to mahal Ultagina in the Monghyr district was withdrawn on the 1st September, but had again to be replaced by 1 head-constable and 10 constables, as the place was still in an unsettled and dangerous state. The number of special police rose from 298 in 1891 to 594 in 1892, and of these 248 were employed in the Darbhanga district, and 113 in Backergunge. The number retained for 12 months in these two districts was 71 and 18 respectively.

10. *Military Police.*—The three bodies of Military Police have rendered useful service to Government during the year. In November a force consisting of 1 subadar, 1 jamadar, 7 havildars, and 75 sepoy from the Dumka Special Reserve was sent to Keonjhar, and a party of the Bhagalpur Military Police, consisting of 1 jamadar, 2 havildars and 30 sepoy, was detailed for similar duty towards the close of the year. In April 1892 a detachment of the Dacca Military Police, consisting of 1 subadar, 8 havildars, and 65 sepoy, was sent to Demagiri for a short time on garrison duty. Since the close of the year a scheme for the reconstitution of the Military Police has been sanctioned by Government, and three companies, each consisting of 100 officers and men, will eventually be substituted for the present force.

11. *Casualties.*—There was a further satisfactory decrease in the number of casualties, and in the percentage of such casualties to the total strength. The following table gives an analysis of the figures for the last three years:—

		1890.		1891.		1892.	
1.	or gratuity	464 or 1.9 per cent.		452 or 1.9 per cent.		420 or 1.8 per cent	
2. Resignation	...	972 " 4.1 "		760 " 3.2 "		722 " 3.1 "	
3. Dismissal	...	621 " 2.6 "		588 " 2.5 "		586 " 2.5 "	
4. Discharge	...	180 " .7 "		225 " .9 "		126 " .5 "	
5. Desertion	...	70 " .3 "		40 " .2 "		51 " .2 "	
6. Death	...	488 " 2.1 "		517 " 2.2 "		551 " 2.4 "	
Total	...	2,798 or 11.7 "		2,582 or 10.9 "		2,456 or 10.5 "	

12. *Torture by the Police.*—The charges of torture by the police were fortunately of no great importance and are few in number. Out of 32 charges only 8 were held to be true, 14 were shown to be false, 7 were dismissed under section 203, Criminal Procedure Code, and 1 under section 253, while 2 were pending at the close of the year. Of the 8 true cases, 6 were against Sub-Inspectors and head constables, but not one of these resulted in the conviction of the accused. In the first of the other two cases, 2 constables were sentenced to six months' imprisonment each for illegal confinement, and in the remaining case from Saran, 2 constables were sentenced to one year's imprisonment each for causing hurt to a villager who had been placed in their charge, and who eventually



died from rupture of his spleen. In three out of the 14 cases reported as false, prosecutions under section 211 were instituted, and in one a conviction was obtained.

13. *Extortion.*—Out of the 92 cases of extortion brought against the police, 22 were entered as true, 21 were declared false, 4 were compounded, and 2 were pending at the close of the year. The remainder were dismissed under section 203, or under sections 253 and 258, Criminal Procedure Code. In 1891 there were only 44 cases enquired into, of which 11 were declared true, 11 false, and 14 were dismissed as not proved. In accordance with the orders of Government, the Inspector-General has given details of all these charges, whether true or false. Dinajpur again heads the list with 42 cases, of which 35 were dismissed under section 203, or sections 253 and 258, Criminal Procedure Code, 4 were compounded and 2 were declared false. Not a single case ended in conviction. The Inspector-General thinks that many of these charges were brought simply with the object of paralysing and retarding police work: whether this is true or not, it is very necessary that every case should be thoroughly enquired into and sifted to the bottom.

14. The number of punishments inflicted on officers and men of the police force during the past three years is shown in the following table:—

YEAR.	JUDICIAL CONVICTION UNDER PENAL CODE.			ACT V.			DEPARTMENTAL.		
	Number.	Percent- age of officers.	Percent- age of men.	Number.	Percent- age of officers.	Percent- age of men.	Number.	Percent- age of officers.	Percent- age of men.
1890 .. .. .	336	1.1	1.5	160	.2	.7	4,828	46.0	16.2
1891 .. .. .	260	.8	1.2	112	.3	.5	4,234	39.2	14.3
1892 .. .. .	245	.7	1.0	120	.1	.5	4,223	41.0	14.0

The Officiating Lieutenant-Governor, while glad to observe this decrease in the number of punishments, which seems to point to an improvement in the general conduct of the force, still thinks that there is room for further improvement. The percentage of departmental punishment is still high, and he trusts that the character of the men recruited into the force will in time lead to its decrease. Out of six prosecutions for embezzlement of Government money or misappropriation of property, in two the accused were judicially punished, and four ended in acquittal, but in three of these, departmental punishments were inflicted. In another case a writer-constable was punished departmentally for misappropriating a process-fee of Re. 1, there not being sufficient evidence for a prosecution. The number of men wearing one or more good-conduct stripes at the close of the year was 8,305 against 8,059 at the close of 1891. Good-conduct allowances amounting to Rs. 18,609-3-6 were disbursed as against Rs. 21,072 in 1891. Special money rewards were paid to 1,034 officers and men for good work done in police cases.

15. *Escapes.*—The number of escapes of prisoners from police custody fell from 198 in 1891 to 159, and of these 103 were recaptured. There was a remarkable decrease in the number of escapes from the custody of chaukidars, there having been only 4 such cases against 28 in 1891. The explanation given by the Inspector-General is that the repeated failures in prosecutions instituted against chaukidars for permitting escapes has made officers cautious in utilizing them for the custody of prisoners.

16. *Inspections.*—The head-quarters of every district of Bengal and of thirty sub-divisions were inspected during the year either by the Inspector-General himself, or by one of the Deputy Inspectors-General. Mr. Henry was on tour for four months and 17 days, exclusive of 18 days spent under orders of Government in the North-Western Provinces. Mr. Giles was Deputy Inspector-General throughout the year, and spent 223 days on tour. Mr. Daly was on leave during the greater part of the year, and was only 46 days on tour. Mr. Pratt officiated for him for about seven months, and Mr. Wilcox for three months. These officers were 43 and 38 days on tour respectively. In five districts only, viz., in Cuttack, Patna, Lohardaga, Rajshahi and the 24-Parganas, the amount of inspection work done by District Superintendents

of Police was below the required standard. In Lohardaga the District Superintendent of Police suffered from ill-health, and in Cuttack the police-boat, which affords the only means of reaching certain stations, was for some months under repairs. No explanations are forthcoming from the other districts named.

17. *Crime*.—In reviewing the figures for the year under this head,

Comparing the facts, the proportion of police to population in 1892 was one policeman to 3,013 persons, as against one to 1,663 in Madras, one to 1,414 in the North-Western Provinces, one to 1,219 in the Central Provinces, and one to 982 in Bombay. These comparisons, however, are less instructive than the comparison of the strength of the police force with the number of cognizable crimes which Mr. Henry makes. The strength of the police force is adjusted not only with reference to the total population, but also to the numbers of the criminal classes. From this point of view the Bengal Police is stronger than the North-Western Provinces and Madras Police, though weaker than the police of the Central Provinces.

The incidence of crime in Bengal, arranged by divisions, is given in the following table:—

DIVISIONS.	Police.	Population.	Cases of cognizable crime, vide columns 4 and 6 of Statement A, Part I. Minus cases refused under 157, C. P. C., and cases under serial No. 57 in that statement.		Proportion of police to population.	Proportion of police to cases of cognizable crime investigated.		Proportion of cases of cognizable crime investigated to population.	
	1892.	1892.	1891.	1892.	1892.	1891.	1892.	1891.	1892.
1	2	3	4	5	6	7	8	9	10
Burdwan ...	3,608	7,648,818	9,615	9,536	Police-man. 1 to 2,131	Police-man. 1 to 26	Police-man. 1 to 27	Case. 1 to 799	Case. 1 to 773
Presidency ...	3,478	7,853,506	11,310	10,908	1 .. 2,258	1 .. 32	1 .. 30	1 .. 604	1 .. 740
Rajshahi ...	2,506	8,019,187	11,000	10,870	1 .. 3,199	1 .. 43	1 .. 41	1 .. 729	1 .. 772
Dacca ...	2,261	9,844,127	11,372	11,173	1 .. 4,472	1 .. 51	1 .. 50	1 .. 865	1 .. 881
Chittagong (excluding Chittagong Hill Tracts).	1,076	4,062,795	4,836	5,063	1 .. 3,704	1 .. 44	1 .. 47	1 .. 814	1 .. 806
Patna ...	4,290	15,811,014	18,775	18,440	1 .. 3,685	1 .. 43	1 .. 43	1 .. 842	1 .. 857
Bhagalpur ...	2,122	8,582,490	11,906	11,094	1 .. 4,044	1 .. 54	1 .. 56	1 .. 735	1 .. 715
Orissa ...	1,511	4,047,352	4,700	4,947	1 .. 2,678	1 .. 31	1 .. 32	1 .. 861	1 .. 818
Chota Nagpur ...	1,536	4,628,792	5,219	5,019	1 .. 3,013	1 .. 33	1 .. 32	1 .. 880	1 .. 922

As desired in the Resolution on last year's report, the Inspector-General has excluded from the above statement offences against sanitary laws, as well as cases in which police enquiry was refused under section 157, Criminal Procedure Code.

18. *Police tests*.—In accordance with the instructions contained in last year's Resolution, the Inspector-General has employed the following three tests only in comparing the working of the police in the different provinces:—

- (a1) Percentage of cases investigated by the police to cases reported.
- (a4) Percentage of police cases ending in conviction to cases decided.
- (b3) Percentage of persons convicted in police cases to persons sent up for trial.

In the table furnished, the figures of crime under classes I—V, and classes I—VI of Statement A, taken together, are shown separately in each case. According to test (a4), which is the most important, the percentage in Bengal for 1892 in classes I to V taken together was only 70 against 83 in Madras in 1891, 82 in the Central Provinces, 81 in the North-Western Provinces, and 80 in

Bombay. In his report for 1891 the Inspector-General expressed his opinion that the unsatisfactory results in Bengal, as compared with other provinces, were due to the general inefficiency of the village police, the large area of the police stations, the insufficiency of the investigating staff, and especially to the want of a prosecuting agency. These complaints are admitted to be just, and measures have been taken to afford a remedy. A special Committee was appointed in 1892 to enquire into the whole subject, and the elaborate proposals they submitted for the reorganization of the Police force having been accepted by this Government, are now under the consideration of the Government of India. The experiment of employing Court Sub-Inspectors as prosecutors in Magistrates' Courts has been extended to all districts during the year, and it is confidently expected that the result will prove to be very beneficial. The steps taken by the Legislative and by the Executive Government to improve the status of the village police have already been referred to in this Resolution.

19. *Reported crime of the Province.*—The following table shows the total number of cognizable and non-cognizable cases reported during the last two years :—

		1891.	1892.	Increase.
Cognizable	...	128,472	146,185	17,713
Non-cognizable	...	119,072	121,624	2,552
Total	...	247,544	267,809	20,265

The increase in cognizable crime is distributed over all the divisions, but it is noticeably large in the Patna Division, where the number of cognizable cases reported rose from 32,946 in 1891 to 40,035. Prosecutions for public and local nuisances rose from 31,158 in 1891 to 41,288 in 1892, and there was an increase of 9,866 in the number of cognizable cases against property, the chief cause of which was doubtless the prevalence of agricultural distress and the high prices of food. The increase may also be accounted for by the freer use made by the police of the discretion allowed to them to refrain from holding enquiries, which has probably led to fuller reporting, now that the public realise that information given in cases of petty theft or burglary does not necessarily involve a police investigation. It may also be due to some extent, as the Inspector-General suggests, to the better reporting which it is hoped has been secured by the measures adopted to elicit information from chaukidars on parade days. The net increase for the province under cognizable crime, as compared with 1891, is over 13 per cent., and under non-cognizable crime a little over 2 per cent. The variation under the latter head is small and calls for no remark.

20. *False cases.*—The number of cases declared to be false was 6,253 against 6,631 in 1891, and the percentage to cases reported was 4·2 as compared with 5·8, 5·4 and 5·1 respectively in the three preceding years. The large increase in the number of prosecutions for public and local nuisances, referred to in the preceding paragraph, and the fact that the number of cases in which enquiry was refused, and which are entered as true, has increased by 11,000, vitiates, however, the comparison by percentages. The percentage of prosecutions under section 211, Indian Penal Code, to cases declared false was only 11·9 against 15·4 in 1891, and the percentage of convictions fell from 37·1 to 33·1. The number of cases in which compensation was awarded to the accused person under section 560, Criminal Procedure Code, has fallen from 916 to 805.

21. *Reported cases not enquired into.*—The number of cases in which enquiry was refused by the police under section 157, Criminal Procedure Code, rose from 7,008 in 1891 to 18,536, and of these over 95 per cent. come under the heads of House-breaking and Theft. The percentage of refusals in cases of house-breaking has risen from 13·4 to 38·2, and of theft from 10·3 to 17·5. In a few instances the increase is attributed to a misunderstanding of the orders of Government, but these orders were fully explained in last year's Resolution, and there can be no excuse for a similar misunderstanding in the future. The fact that in only 478 cases enquiry was ordered by the Magistrate after investigation had been declined by the police would seem to indicate that the discretion exercised by the police in refusing enquiry was generally justified by the facts of

the case. The Officiating Lieutenant-Governor fears, however, that in many cases the discretion of the police has been abused. In the Patna Division less than 50 per cent. of burglary cases were investigated, and this percentage fell below 30 in Darbhanga, although 40 per cent. of the cases in this district were accompanied by loss of property. In the Champaran district 50 per cent. of the true cases of burglary are reported to have been accompanied by loss of property, but in the neighbouring district of Saran out of 1,239 true cases property is said to have been taken in 258 only, or about 20 per cent. In Monghyr only 476 out of the 1,824 cases of burglary were enquired into. In Dinajpur out of 1,372 cases of theft, only 593 were investigated. These figures are very surprising and giving rise as they do to the impression that reports of occurrences are frequently manipulated at police-stations in order that enquiries may be refused, establish the necessity of more careful supervision and constant inspection by District Superintendents in order to prevent abuse of this section by subordinate police officers.

22. *Results of sessions cases.*—The number of cases tried before the Court of Sessions rose from 1,253 in 1891 to 1,326, and of these 900 ended in conviction and 426 in acquittal. The number of persons tried rose from 2,685 to 3,016, of whom 1,668 were convicted and 1,348 were acquitted. There was a falling off in the percentage of convictions in cases from 68·3 to 67·8, but the percentage of persons convicted rose from 54·4 to 55·3. Dinajpur for a second time shows the lowest convictions of any district in the province, the percentage of convictions being only 31·0. In Gaya only 20 persons were convicted against 93 acquitted. Such results are not to be attributed to fortuitous circumstances, or to the personal characteristics of Judge or jury, and can only be explained by the faulty investigation of cases by the police and by the want of care on the part of Magistrates in not thoroughly sifting the evidence before committing the cases for trial—causes which it should be in the power of the local officers to remove.

23. *Offences against the State and public tranquillity, Class I.*—There was an increase in the number of offences in this class from 2,765 to 2,817. Cases of counterfeit coining rose from 113 to 162, but with the exception of those which occurred in the Dacca Division, they were for the most part unimportant. In Rajshahi one man was sentenced to three years' imprisonment for forging Government currency notes, and in a case in Jessore an accused, in whose possession instruments for the manufacture of counterfeit coin were found, was sentenced to 10 years' transportation. In the only important case that occurred in the Patna Division, the accused was awarded seven years' imprisonment. In the Dacca Division the police are reported to have done excellent work in several cases of importance, notably in a case in Faridpur, where two defendants were sentenced to seven years' imprisonment each, and again in Backergunge, where Sub-Inspector Lolit Kumar Nundi succeeded in breaking up a dangerous confederacy of coiners, and secured the conviction of three, although one was subsequently acquitted by the High Court on the ground of an irregularity in the trial. There was a falling off of five in the number of true cases of rioting as compared with last year. The Dacca Division again heads the list with 466 cases, and it is followed by the Presidency with 335, but it is satisfactory to notice that there has been a decrease of 52 in the former division as compared with 1891. That the great majority of the cases sent up for trial were trivial in their nature is, however, shown by the fact that out of 11,018 persons actually tried for rioting, only 305 appeared before the Court of Sessions. In the Burdwan Division every district shows an increase over last year's figures, but none of the cases were of special importance. There is little fluctuation in the figures under this heading in the Presidency and Rajshahi Divisions, and the cases were for the most part unimportant. In the Dacca Division Backergunge returns the smallest number of rioting cases for any year since 1888, the decrease of 40 cases as compared with last year's figures being probably due to the preventive measures taken, 3,254 persons having been bound down under section 106 or section 107, Criminal Procedure Code. In Faridpur the number of persons bound down to keep the peace was 2,114, and the number of true cases of rioting fell from 134 to 116. Dacca is the only district in the Division which shows an increase over last year's figures, the number of cases having risen from 81 to 111, while the number

of persons bound down to keep the peace was 1,102. In the Tippera district, in the Chittagong Division, there was a satisfactory decrease of 45 in the number of riot cases, due, in the Commissioner's opinion, to the greater energy shown in prosecuting persons under sections 106 and 107, Criminal Procedure Code. In the Patna Division fluctuations have been slight. As directed in last year's Resolution, the Inspector-General has given details of cases in which Europeans were concerned, and of these the most important is a case in which the Assistant Manager of the Cheylaha outwork of the Motihari Factory was set upon by a number of villagers and severely beaten. Eight persons were convicted in this case and sentenced to terms of imprisonment, and additional police were quartered on the village. The Inspector-General notices a bad case that occurred in the Bhagalpur district, in which the police had applied in good time to have the parties bound down to keep the peace, but owing to some delay in putting the report before the Magistrate, and in communicating the latter's orders thereon, the riot was committed before any preventive measures could be taken, and one man lost his life. The cases from the Orissa and Chota Nagpur Divisions call for no remark.

24. *Class II.—Serious offences against the person.*—Cases of this class fell from 4,824 in 1891 to 4,666, the chief fluctuations being a decrease of 94 under "Criminal force to public servants," and of 76 under "Hurt by dangerous weapons." The number of persons sent up for trial was 7,154, of whom 1,259 were tried before the Sessions Court, and the percentage of convictions to persons tried was 45·6 against 46·2 in 1891. There were 351 murders reported against 319 in 1890 and 360 in 1891. The percentage of convictions in murder cases fell from 28·6 to 25·3, but in persons it was 20·7, or practically the same as last year. There were 8 cases of murder by dacoits, and 15 by robbers, against 8 and 16 respectively in 1891. Murders by poison increased by 6 cases, the number being 21, of which 15 were sent up for trial, and in 3 of these only were convictions obtained. Under "Other murders" the Dacca Division heads the list with 86 cases, or over 25 per cent. of the provincial total, and of these no less than 39 occurred in the Backergunge district. The action of the Magistrate in withholding gun licenses is reported to have had a beneficial effect in the Patuakhali sub-division, the number of murders having fallen from 13, most of which were caused by guns, to 2. There was a decrease of 1 in "drugging" cases, the number for the year being 31, of which only 8 ended in conviction.

25. *Class III.—Serious offences against property.*—The number of cases of this class has risen from 28,288 in 1891 to 33,325. The chief increase occurred under the head "Lurking house trespass or house-breaking," the number of cases of which rose from 26,373 to 31,166, the reason given being the agricultural depression and the consequent rise in the price of food. There was a further remarkable increase of 107 cases of dacoity, the total number of true cases for the year being the largest on record for the last 20 years. The number of true cases in each division in the last six years is shown in the following table:—

	1887.	1888.	1889.	1890.	1891.	1892.
Burdwan ...	23	18	34	29	22	42
Presidency ...	7	17	17	12	22	36
Rajshahi ...	23	16	17	27	48	51
Dacca ...	9	15	19	12	23	18
Chittagong ...	8	2	4	...	...	6
Patna ...	12	20	36	20	43	76
Bhagalpur ...	24	16	20	18	30	67
Orissa ...	4	14	14	8	7	16
Chota Nagpur ...	4	14	11	4	15	16
Total ...	109	132	172	130	210	317

The increase is most marked in the Patna and Bhagalpur Divisions, and is due in the former to the 42 cases reported from the Gaya district, and in the latter to the 24 cases from Purnea. The Inspector-General has discussed in his report the probable causes of the recrudescence of this serious offence, and he is of opinion that the great majority of cases are the work of local bad characters, who are more than usually active in seasons of scarcity. He enumerates the remedial measures which have been adopted by him during the year, which include the improvement of the beat system in various thanas, the organization of chaukidari patrols, the encouragement of villagers

to assist chaukidars, the issue of a hue and cry circular, the more effective supervision of notorious criminals, the deputing of skilled officers (as in Jessore) to assist in investigating cases, the more liberal grant of rewards to private persons, police officers, and chaukidars, and the remodelling of the Criminal Department of the Inspector-General's office. These measures, the Inspector-General believes, will prove effectual in checking the commission of this serious crime, and the Lieutenant-Governor hopes that this belief may be fulfilled. It is at any rate some satisfaction to know that the police have met with more than ordinary success in prosecuting cases before the courts, the number of persons convicted during the year being 345 against 195 in 1891, and the percentage of persons convicted to those tried having risen from 21·0 in 1890 and 31·8 in 1891 to 35·1 in 1892. In one important case from the 24-Parganas a formidable gang of dacoits was broken up, a result largely due to Sub-Inspector Mir Jahan Ali, who was commended by the Judge, and received a special reward. In Gaya the outbreak of dacoity was more serious than in any other district in the Province, the number of cases having risen from 14 to 42, and it is to be feared that the outbreak was partly due to preventible causes. Although in the opinion of the District Magistrate these cases were the work of local bad characters, with which the district is said to swarm, yet only 39 persons were successfully prosecuted under the bad livelihood sections in 1891 and 55 in 1890. The want of success on the part of the police in dealing with the outbreak is very marked, and out of 76 persons sent up in 12 out of the 42 cases reported, only 9 were convicted. With such chances in their favour, and looking to the way they have been neglected, it is not surprising that local criminals should feel emboldened to commit crime. The Officiating Lieutenant-Governor notices with satisfaction that orders have recently been issued requiring Inspectors to themselves supervise the investigation of dacoity and other grave cases on the spot, and he hopes that by this means more prompt and thorough investigation of such cases will be secured, and that better results will be obtained as regards detection and successful prosecution in court. His Honour believes that an Inspector who does his share of investigation work will pick up information concerning the subordinate police and the criminal classes, which no amount of scrutiny of registers will give to him. Such local investigation on the part of superior officers is, moreover, the surest means of preventing extortion or other malpractices on the part of inferior police officers. In Sir Antony MacDonnell's opinion it is also very important that District Superintendents and their Assistants should occasionally proceed to the spot without an hour's avoidable delay, and themselves personally conduct the local enquiry. All the advantages to be derived from an Inspector's local investigation are likely to result in an even greater degree when the head of the district police himself takes action, and the Officiating Lieutenant-Governor desires that it may be more distinctly understood by all District Superintendents than it is at present that their duties are not confined to inspection and office work and general supervision only, but that they are expected to take a certain share in the actual investigation and detection of important crime.

26. The number of cases of robbery rose from 172 in 1891 to 197. There were 31 cases of drugging under section 328, Indian Penal Code, but only one of robbery by poison under section 394. In this connection the Inspector-General draws attention to the Resolution of the Government of India of the 20th February 1880, in which the opinion is expressed that such cases should be dealt with under the more serious section, whenever possible. The solitary case under section 394, Indian Penal Code, occurred in the Burdwan Division, and is of some importance, a party of travellers to Juggernath having been drugged and robbed of Rs. 377 by one Govind Brahman, who, however, managed to escape detection. Cases of mischief by fire rose from 423 to 502, and in these 146 persons were sent up for trial, of whom only 26 were convicted.

27. *Class IV.—Minor offences against the person.*—The number of cases under this class rose from 2,220 to 2,268, and of these 2,202 were cases of wrongful restraint. Judicial results show a slight improvement, the percentage of persons convicted to persons tried being 30·1 against 26·1 in 1891.

28. *Class V.—Minor offences against property.*—The number of true cases under this class rose from 39,841 in 1891 to 44,870, and if burglaries, which are

generally discussed under this head, are included, there was a total increase of 9,763 over last year's figures. Thefts increased by 4,386 and burglaries by 4,793, and although this may be primarily attributed to the pressure following on the high prices of food prevalent throughout the province, it is doubtless to some extent due to the change of practice in not enquiring into petty thefts and attempts at burglary, all of which are now shown as true. For this reason a comparison of judicial results by cases is no test, but as the proportion of persons convicted of offences under this class (including burglary) has risen from 53.1 to 55.8, it may be assumed that greater discrimination was shown by the police in sending up persons for trial. In the Gaya district there was a remarkable increase of 1,228 cases under class V and of 946 cases of lurking house-trespass and house-breaking. None of the cases call for special remark.

29. *Class VI.—All other cases.*—Under this class there was a net increase of 8,083 cases, which is chiefly accounted for by an increase of 7,129 in prosecutions for nuisances. Cases under the Salt and Customs Laws and under the Arms Act increased by 529 and 55 respectively, and there was also an increase of 755 under "special laws." Prosecutions under the Excise laws fell from 2,866 to 2,747, and of these 2,497 ended in conviction. Although the outbreak of crime was the heaviest that has occurred for many years, there was a decrease of 268 prosecutions for bad livelihood, but on the other hand the number of persons convicted rose from 1,739 to 1,779. The number of cases tried locally fell from 919 to 843. The Inspector-General thinks that more of these prosecutions might with advantage be taken up by Magistrates on the spot, especially in districts in which communication is good. Owing to the necessity of prompt disposal or to pressure of work, or to other causes, this is not always possible, and the Officiating Lieutenant-Governor leaves the question to the discretion of Magistrates, merely drawing attention to the advantages to be derived in such cases from an efficient local enquiry. In Faridpur and Backergunge a large number of bad livelihood cases were tried in the villages of the accused and with marked success. The Officiating Lieutenant-Governor regrets to notice that, although the importance of disposing of these cases promptly has frequently been insisted upon in former years, the returns show that in many districts great delay has been allowed to occur. Thus in Tippera one case lasted 582 days from the date of issue of process, one in Jessore lasted 479 days, one in Dacca 366 days, one in Shahabad 362 days, and one in Khulna 309 days, while several are shown as having lasted over 100 days. No explanation of the delay in these cases has been given, but the Officiating Lieutenant-Governor wishes to impress upon all Magistrates the necessity of seeing that these prosecutions are promptly disposed of, as delay only leads to failure of justice, to the intimidation of witnesses, and to making them reluctant to give evidence. The number of persons shown in the registers as under surveillance at the close of the year was 45,154, but as 11,459 of these were either in jail or untraced, the actual number with which the police had to deal was 33,695.

30. *Railway Police work.*—The number of cognizable and non-cognizable cases reported during the year was 3,813 against 3,493 in 1891. There was an increase of 355 in cognizable and a small decrease in non-cognizable cases. Out of 3,470 persons sent up for trial, 2,970, or 85.5 per cent., were convicted. None of the cases call for special notice. Including 15 suicides, there were 273 accidents, resulting in the death of 173 persons.

31. *Non-cognizable crime.*—Non-cognizable offences increased by 2,553, as will be seen from the subjoined table:—

		Number of cases.		Increase.	Decrease.
		1891.	1892.		
Class	I ...	8,920	8,994	63	
"	II ...	23	20		3
"	III ...	922	823		99
"	IV ...	59,048	57,264		1,819
"	V ...	9,609	10,015	406	
"	VI ...	11,779	13,585	1,806	
	Special laws ...	28,726	30,923	2,197	
Total		119,071	121,624	4,474	1,921
		Net increase		2,553	



The increase in class VI is due to the increase of 1,527 in cases of security for keeping the peace on conviction under section 106, Criminal Procedure Code, the number having risen from 1,738 to 3,265. Process was issued in 74·3 per cent. of all non-cognizable cases, and of the persons summoned 81·1 per cent. appeared before the Court.

32. *Remands*.—The percentage of remands in police cases sent up for trial is shown in the following table:—

	Percentage of A forms disposed of at first hearing.	Percentage of A forms remanded once.	Percentage of A forms remanded twice.	Percentage of A forms remanded thrice.	Percentage of A forms remanded four times.	Percentage of A forms remanded five times.	Percentage of A forms remanded six times.	Percentage of A forms remanded more than six times.	Pending.
1890 (a) ...	34·9	19·8	18·8	9·7	6·0	4·3	2·7	5·5	9·4
1891 (a) ...	30·9	22·3	15·2	10·2	6·9	4·5	2·5	4·9	9·8
1892 (b) ...	37·8	24·5	15·2	9·0	5·1	2·7	1·5	1·7	2·1

(a) Including Chittagong Hill Tracts.  
(b) Excluding ditto ditto.

The Officiating Lieutenant-Governor is glad to observe that the improvement noticed in last year's report, which is the result of Sir Charles Elliott's stringent and most salutary orders on the subject, has been maintained during the year under review and is common to all divisions. Nothing can tend more to the efficient administration of justice, than the prompt disposal of cases, and nothing can be more injurious and oppressive to witnesses and all concerned than unnecessary remands. There was a satisfactory increase from 17,956 to 22,111 in the number of cases decided at the first two hearings, while the number of cases remanded six times or more has fallen from 2,528 to 1,147.

33. *Reconvictions*.—The number of persons against whom previous convictions were proved rose from 3,580 to 4,562, being an increase of 27 per cent. Special attention has been paid to this subject, as statistics show that the past history of many old offenders escapes notice. The register of convictions is now kept in English, and the Inspector-General is devising an improved system of indexing names, which, it is hoped, will facilitate search.

34. *Anthropometry*.—Further progress has been made during the year in perfecting the anthropometric system which has now been placed on a sound working basis. By improvements effected in the instruments used for measuring, which have been rendered automatic, greater accuracy has been secured; the rules of working have also been revised, a number of officers have been instructed, the system of search for cards has been perfected, and over 6,000 cards containing the measurements and all details of the previous history of the most dangerous criminals in the Province have been classified. Mr. Henry has devoted himself to perfecting the anthropometric scheme with marked zeal and ability. It is true that so far it has not been possible to put the system to any practical test, as it is still only in its infancy, but it promises to be of the greatest value in the future.

35. *Criminal Tribes*.—The most important criminal tribe in Bengal is that of the Maghya Domes in Bihar, who are now settled in various places in the Saran and Champaran districts under the supervision of Government officers. The settlements are said to be in an unsatisfactory state, attributable, according to the Inspector-General, to the system on which they are worked. Nevertheless, there can be no doubt that a very considerable degree of police supervision is now exercised over the Domes, and that their depredations are restrained to an extent which would be impossible if these settlements did not exist. In deference to the opinion of the local officers, a project to concentrate the Domes in one settlement in the Champaran district was abandoned, but Sir William Hudson's proposal to send a few of these men as pioneers to Burma, with a view to the eventual formation of a Dome colony there, has been sanctioned by Government as an experimental measure.

36. *Character of Officers*.—Mr. Henry has brought to the special notice of Government the names of the following officers for their good work during the year:—



*District Superintendents.*

Mr. Wilcox.  
„ Goad.

Mr. Orr.  
„ Judge.

Mr. James and Mr. Showers, Assistant Inspectors-General, Railway Police.

*Assistant Superintendents.*

Mr. Ryland.

Mr. Thomas.

Mr. Moore.

*Inspectors.*

Samuels.  
Navakrishna Rai.  
Girendra Chunder Mukerjee.  
Motilal Ghose.  
Digamber Adhikari.  
T. C. Das.

Ajaib Lal.  
Harihar Charan Lal.  
Deverinne.  
Janki Parshad Tiwari.  
Mazhar-ul-Haq.  
Monmohun Chakravarti.

The names of the other officers mentioned by the Inspector-General in his Report will be communicated to the Appointment Department.

Mr. Henry also acknowledges the valuable assistance he received from the Deputy Inspectors-General, and especially from Mr. Giles, as well as from Mr. Knyvett, who acted as his Personal Assistant for the last eight months of the year. To Mr. Henry himself the thanks of the Lieutenant-Governor are due for his able and efficient administration of the Department and for the complete and thorough report now submitted.

ORDER.—Ordered that a copy of the above Resolution be forwarded to the Inspector-General of Police and the Commissioner of Police, Calcutta.

Ordered also that a copy of the Resolution be forwarded to all Commissioners of Divisions for information.

Ordered also that the Resolution be published in the *Calcutta Gazette*.

By order of the Lieutenant-Governor of Bengal,

H. J. S. COTTON,

*Chief Secretary to the Govt. of Bengal.*

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 26th August, 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL.			
BUREWAN DIV.	1 Burdwan Aug. 26, '93	0.20	Weather—seasonable. More rain wanted. Prospects of <i>aus</i> , <i>aman</i> and sugar-cane fair. Fodder and water sufficient. Prices of common rice:— Srs. Burdwan ... 10 to 12 Kalia ... 9 to 12 Katwa ... 12½ Raniganj ... 12½ } per rupee.
	Kalia ...	1.38	
	Katwa ...	1.63	
	Raniganj ...	1.72	
	2 Bankura „ 26, '93	2.56	Weather—seasonable. <i>Aus</i> paddy is coming to maturity. <i>Aman</i> plants are thriving. Prospects good. Common rice selling at 13½ seers per rupee at Sadar and 12 seers at Vishnupur.
	Vishnupur ...	4.21	
	3 Birbhum „ 26, '93	0.38	Weather—seasonable. The break in the rains has done good to the crops, which are excellent. Price of common rice 11 to 14½ seers per rupee.
	Rampur Hât ...	0.76	
	4 Midnapore „ 26, '93	1.26	Weather—hot and cloudy with occasional showers. <i>Aus</i> crop nearly ready for reaping. Prospects of <i>haimanti</i> crop generally good. Fodder and water sufficient. Prices of common rice:— Srs. Sadar ... 11 Contai ... 12½ Tanduk ... 11 Ghatal ... 13 to 14½ } per rupee.
	5 Hooghly „ 26, '93	1.78	Weather—seasonable. Transplantation of <i>aus</i> finished on high lands, progressing on low lands. Jute being steeped. Fodder and water plentiful. Cattle-disease reported in Palba thana. Prices of common rice:— Srs. Sadar ... 10 to 11 Serampore ... 10 to 11½ Jahanabad ... 11 to 12 } per rupee.
	Serampore ...	0.61	
	Jahanabad ...	0.72	
	6 Howrah „ 26, '93	0.64	Weather—seasonable. Harvesting of <i>bhadoi</i> paddy has commenced. Transplantation of <i>aman</i> paddy continues. Condition of cattle good. Fodder and water-supply sufficient. Price of rice 10 to 10½ seers per rupee.
	Ulubaria ...	0.50	
PRESIDENCY DIV.	7 24 Parganas „ 26, '93	1.18	Weather—seasonable. Transplantation of <i>aman</i> going on. <i>Aus</i> being cut. Prospects of crops in the southern part of the district are not favourable, and bad in the thanas of Bankipur and Mathurapur. In the north of the district prospects are fair.
	8 Nadia „ 26, '93	0.24	Weather—hot with occasional showers. The <i>aus</i> paddy harvest is nearly over. Prospects of <i>aman</i> rice fair on the whole. Jute harvest proceeding. Price of rice falling.
	Kushtia ...	0.96	
	Moherpur ...	1.44	
	Chunadanga ...	1.40	
	Ranaghat ...	1.28	Weather—fine with occasional showers. <i>Aus</i> being reaped; mostly damaged by excessive rain. <i>Aman</i> being transplanted.
	Khulna „ 26, '93	0.82	
	Bagerhat ...	0.44	
	Satkhira ...	1.10	
	10 Jessore „ 26, '93	1.71	Weather—sultry. Harvesting of <i>aus</i> and extracting of jute in progress. Cattle-disease reported from Salkhia. Fodder sufficient except in Mahomedpur. Prices steady.
	Jhenida ...	2.57	
	Magura ...	0.42	
	Narsail ...	2.99	
	Bangson ...	0.84	Weather—hot and cloudy at intervals. Transplantation of <i>aman</i> finished. Harvesting of <i>bhadoi</i> nearly completed. Jute, mulberry and hemp doing well. Fodder for cattle sufficient. Common rice sells at 11½ seers per rupee.
	11 Murshidabad „ 26, '93	0.17	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL—continued.</b>			
CHITTAGONG DIVN.	12 Chittagong Aug. 26, '93	1.04	Weather—seasonable. <i>Aus</i> crop being still harvested and <i>aman</i> transplanted. Prospects fair. Prices steady. Condition of cattle generally good. Supply of fodder sufficient.
	13 Noakhali „ 26, '93	2.68	Weather—seasonable. Harvesting of <i>aus</i> almost over. Transplanting of <i>aman</i> vigorously pushed on, the water having considerably gone down in the fields. Prospects fair. Cattle-disease reported from two thanas. Fodder not sufficient. Price of rice varies from 8½ to 10 seers per rupee.
	14 Tippera „ 26, '93	3.7	Weather—seasonable. The rains appeared to have ceased for the time being. The whole of the district to the north and west being under water, fodder and fuel are not obtainable. Jute crop is good. The floods are falling, and much transplanting of <i>aman</i> will be done if no further rise takes place. On the whole, <i>aman</i> prospects have improved, but in large tracts much loss has been experienced. People and cattle are put to great inconvenience by the collapse of houses undermined by the floods. Rice is being sold at 8 seers per rupee in all but the more favoured tracts.
	15 Chittagong Hill Tracts. „ 26, '93	3.23	Weather—seasonable. <i>Jum</i> paddy (early sown) is ripening. <i>Aus</i> paddy also ripening in some places. Condition of cattle generally good. Common rice selling at 9½ seers per rupee.
DACCA DIVN.	16 Dacca „ 26, '93	0.37	Weather—hot. <i>Rawa</i> and <i>shail</i> paddy being sown. Harvesting of <i>aus</i> and jute nearly finished. Some damage has been done to the <i>aus</i> crop owing to high floods. Water still rising. Common rice selling at from 7 to 9 seers per rupee. Fodder not sufficiently available. No cattle-disease.
	17 Faridpur „ 26, '93	0.91	Weather—seasonable. Highest flood yet recorded, but water now receding. There is still a little <i>aus</i> left uncut on high lands, but in no part of the district does the outturn exceed 8 annas, while in many places it does not exceed 4 annas and 2 annas. In Kotalipara there is none. Average outturn of jute at best 8 annas, in many places not more than 5 annas. On high lands a 10—12-anna <i>aman</i> crop is hoped for, but in most of the low lands the outturn will be far lower, while in Kotalipara the crop may be said to be entirely lost. Coarse rice sells at 9-10 seers per rupee. Cattle are in many places in want of good fodder, and of course no grazing is possible. There are still cases of cattle-disease.
	Goalundo ...	1.09	
	Madaripur ...	2.09	
	18 B.ckergunge „ 26, '93	0.79	Weather—seasonable. State and prospects of crops moderate. Common rice is being sold at from 8 to 10½ seers per rupee. Fodder and water sufficient.
RAJSHAH DIVN.	Pirojpur ...	Nil	
	Patuakhali ...	1.81	
	Bhola ...	0.74	
	19 Mymensingh „ 26, '93	2.58	Weather—hot. Floods subsiding. Transplantation of <i>aman</i> going on. Prospects of crops improved. Price of common rice increasing, selling at 8 seers per rupee. Fodder insufficient.
	20 Dinajpur „ 26, '93	0.70	Weather—hot and cloudy at times. Prospects of standing crops continue to be very good. Transplantation not yet finished. Jute and <i>dhadoi</i> are being reaped. Prices of rice at Sadar and Thakurgaon unchanged. Condition of cattle good. Fodder and drinking water plentiful.
	Thakurgaon ...	2.52	
	21 Rajshahi „ 26, '93	0.96	Weather—hot and cloudy, with showers at intervals. Prospects fairly good.
	Nator ...	0.44	Sowing of <i>ropa</i> paddy nearly finished. Harvesting of <i>aus</i> going on. Condition of cattle good. Fodder and water-supply sufficient. Price of common rice 10 to 13 seers per rupee.
	Naugaon ...	4.70	
	22 Rangpur „ 26, '93	1.41	Weather—very hot. <i>Aman</i> still being transplanted. Jute is being out.
RAJSHAH DIVN.	Gaibanda ...	0.41	Prospects continue favourable. Common rice 10 to 13 seers per rupee.
	Kuriganj ...	0.11	
	Nilphamari ...	0.62	
	23 Bogra „ 26, '93	3.62	Weather—unsettled. Some damage is reported to have been caused to standing crops by floods in the west of the district, but the general prospects are fair. Common rice sells at 11 seers per rupee. Fodder and water sufficient.
	Sherpur ...	3.21	
	24 Pabna „ 26, '93	0.52	Weather—seasonable; partially cloudy. Rivers now falling, but floods have been very high in Sirajganj subdivision. <i>Aus</i> and jute are still being reaped. Common rice sells at 11 seers per rupee at Pabna and Rs. 4 to Rs. 4.4 per maund at Sirajganj. Fodder and water-supply sufficient.
	25 Darjeeling „ 26, '93	3.75	Weather—damp and cloudy. In the hills:—Indian-corn, <i>chota marua</i> , <i>dhadoi</i> paddy, <i>phaphar</i> , <i>shama</i> and <i>kangni</i> are being harvested. <i>Bara marua</i> and <i>aghani</i> paddy doing well. In the Terai:—Prospects of crops favourable. Prices of coarse rice:—
	Siliguri ...	4.68	
			Hills ... 9 } Srs. Terai ... 10 } per rupee.
	26 Jalpaiguri „ 26, '93	2.47	Weather—seasonable. Transplanting of <i>kaimanti</i> paddy, harvesting of <i>dhadoi</i> , and steeping of jute continue. Common rice ( <i>aus</i> ) sells at 12 seers per rupee at Sadar and 9 to 10 seers at subdivision. Fodder sufficient. No cattle-disease.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.	
BIHAR.				
BHAGALPUR DIV.	27 Monghyr Aug. 26, '93	6.20	Weather—hot with copious rainfall at the middle of the week. Transplantation of winter rice almost finished. Prospects of indigo, <i>makai</i> , <i>marua</i> and <i>sathi</i> paddy favourable. Cattle-disease reported from Bakhtiarpur, Kharakpur, Nawadih, and Shaikpura. Fodder and water sufficient. Prices of common rice :—	
	Begusarai ...	3.99		
	Jamui ...	1.93		
				Srs.
		Sadar ...	...	11 to 14
		Begusarai ...	...	12 to 13
		Jamui ...	...	12
				} per rupee.
	28 Bhagalpur .. 26, '93	0.66	Weather—hot. Transplanting of winter rice is nearly over. <i>Bhadoi</i> harvest in progress. Prospects good.	
	Banka ...	0.36		
Madhipura ...	0.88			
	Supaul ...	0.56		
	29 Purnea .. 26 '93	3.22	Weather—variable; hot generally and storms at times. <i>Bhadoi</i> harvest and jute steeping in progress with good results. <i>Aghani</i> transplantation in a forward stage. Recent weather beneficial to all crops. <i>Bhadoi</i> rice coming into market is having the effect of lowering prices slightly.	
Kishanganj ...	0.28			
Araria ...	2.00			
	30 Majda .. 26, '93	0.49	Weather—hot and occasionally cloudy. Harvesting of <i>bhadoi</i> rice not yet completed owing to prolonged rainy whether. Transplanting of winter paddy still continues. Sugarcane coming into maturity. Ordinary rice sells at from 12 to 17 seers per rupee. Fodder and drinking water sufficient.	
	31 Sonthal Parganas .. 26, '93	1.06		
		Godda ...		1.04
Pakur ...		0.88		
	Rajmahal ...	0.56		
PATNA DIVISION.	32 Patna .. 26, '93	1.55	Weather—hot; sunny and sometimes cloudy and rainy. Condition of rice crop satisfactory, but <i>bhadoi</i> has largely suffered from excessive rain. Enquiries are being made as to the amount of injury done. Prices of common rice :—	
	Barh ...	2.40		
	Bihar ...	2.64		
	Dinapore ...	0.98		
			Srs.	
	Sadar ...	...	15	
	Barh ...	...	13	
	Bihar ...	...	15	
	Dinapore ...	...	13	
			} per rupee.	
	33 Gaya .. 26, '93	1.80	Weather—cloudy in the beginning and clear and hot at the end of the week. Harvesting of <i>marua</i> and <i>makai</i> in progress. Transplantation of paddy still going on. Prospects good. Prices stationary. Common rice sells at from 12 to 15 seers per rupee. Fodder and water-supply ample.	
	Jahanabad ...	1.14		
	Aurangabad ...	4.22		
	Nawada ...	2.22		
	34 Shahabad .. 26, '93	1.26	Weather—unsettled; bright sunshine alternates with cloudy skies and occasional showers. Excessive rainfall of July has done vast damage to <i>bhadoi</i> in the south of the district. Everywhere this important crop is much below the average. Paddy looks very well indeed.	
	Bhabhua ...	2.16		
	35 Darbhanga .. 26, '93	1.77	Weather—hot and occasionally cloudy. Flood-water not yet entirely subsided. Extent of damage done to crops being ascertained. Crops not affected by floods are doing well. Retransplanting of rice being resorted to where seedlings are available. Cattle suffering in places for want of sufficient fodder. Prices rising.	
	Samastipur ...	1.71		
	Madhubani ...	0.24		
	36 Muzaffarpur .. 26, '93	1.52	Weather—cloudy and hot. Floods subsiding. The crops in the flooded area are very severely damaged. Extent of damage being ascertained. In Sitamarhi the paddy is being retransplanted where water has subsided. No disease among cattle. Fodder and water sufficient.	
	Hajipur ...	0.74		
	Sitamarhi ...	0.27		

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
BIHAR—consold.			
PATNA DIVISION—consold.	37 Saran Aug. 26, '93	0.66	Weather—hot with only rare showers. Condition of crops very good. The first indigo mehai has concluded with a very short outturn. Present weather is favourable for the khunti crop, but it is not expected to yield much. Prices of common rice:—  Chapra ... .. Srs. 13 Siwan ... .. 13 } per rupee. Gopalganj ... .. 14½
	Siwan ...	1.80	
	Gopalganj ...	2.00	
	88 Champaran „ 26, '93	0.62	
ORISSA.			
ORISSA DIVN.	39 Cuttack „ 26, '93	4.12	Weather—cloudy with occasional heavy showers. Early or <i>satika beali</i> maturing and in some places being reaped. <i>Sarad</i> being transplanted. Supply of fodder sufficient. Price of rice stationary.  Weather—hot with occasional showers. Rainfall sufficient for the time being. Transplanting and weeding of <i>sarad</i> going on. <i>Beali</i> being reaped in places. Miscellaneous crops doing well. Prices of common rice:— Srs. c. Srs. c. Sadar ... .. 11 13 to 15 12 } per rupee. Khurda ... .. 11 0 to 17 1 }
	40 Puri „ 24, '93	3.44	
	Khurda ...	3.81	
	Banpur ...	4.70	
41 Balasore „ 26, '93	1.86	Weather—showery. Light rain. Transplantation of paddy still in progress. More rain wanted everywhere. All crops doing well except in a small area in the north of the district where rain is badly wanted. Prices of rice are stationary at Bhadrak and have fallen from 13 to 14 seers at Balasore.	
CHOTA NAGPUR.			
South-West Frontier Agency.			
CHOTA NAGPUR DIVN.	42 Hazaribagh Aug. 26, '93	1.53	Weather—moderately fine with occasional showers. Paddy, sugarcane and other crops doing well. <i>Gundli</i> and what remains of Indian-corn being harvested. Fodder and water ample. Prices more or less stationary.
	Giridi ...	4.82	
	43 Lohardaga „ 26, '93	1.40	Weather—hot and cloudy. Reaping of <i>gora</i> paddy commenced. Prospect of winter rice good. Common rice selling at 14 seers per rupee. Fodder and water plentiful.
	44 Palamau „ 25, '93	4.87	Ordinary monsoon weather. Prospects of paddy good. Transplantation nearly finished. <i>Bhadai</i> prospects generally poor except in Haroharganj and Mahuadand. <i>Makai</i> and <i>gora</i> paddy being cut. Rice selling at from 12 seers 6 chitaks to 17 seers per rupee. Some cattle-disease reported.
	45 Singhbhum „ 26, '93	0.87	Weather—seasonable. Crops are doing well; 12 to 16 annas outturn expected. Price of rice from 10 to 12 seers per rupee. Cattle-disease reported from one part of the district.
	46 Manbhum „ 26, '93	1.83	Weather—seasonable with occasional showers. Prospects of crops good, but too much rain is likely to do harm. Prices stationary. Fodder and water sufficient.
Gobindpur ...	3.94		

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 29th August, 1893.

M. FINUCANE,  
Offg. Secy. to the Govt. of Bengal.

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.											
			AIR PRESSURE.			WIND.		TEMPERATURE.						
			Mean barometric height 8 A.M. reduced to 32°.	Mean reduced to sea-level and constant gravity, lat. 45°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.
ORISSA.	Puri	Puri	29°018	29°578	—	Calm	188	91°7	24th Aug.	76°6	23rd Aug.	90°3	80°0	85°2
		Gopalpore	29°020	29°581	—0°43	NNW	257	88°2	22nd	76°5	24th	87°1	77°6	82°4
		False Point	29°027	29°589	—0°36	SW, SE	219	89°5	22nd	77°6	20, 25	87°0	78°5	83°7
	Cuttack	Cuttack	29°552	29°574	—0°41	SW	54	92°2	22nd	76°3	23rd	89°0	78°7	84°3
SOUTH-WEST BENGAL.	Balasore	Balasore	29°581	29°593	—0°15	ENE	90	91°4	22nd	76°7	24th	88°5	78°3	83°4
	Midnapore	Midnapore	29°526	29°621	0	NE	30	93°3	22nd	77°1	23rd	90°3	78°8	84°6
	24-Pargannas	Calcutta	29°653	29°620	+0°06	ESE	89	90°1	23rd	78°2	24, 25	88°0	79°2	84°1
		Saugor Island	29°638	29°607	—0°07	Ely	281	90°2	21 & 25	79°0	21, 25	89°4	80°6	85°0
SOUTH-WEST BENGAL.	Howrah	Howrah	29°633	29°628	+0°19	E	107	92°3	22nd	78°7	25th	90°2	79°4	84°9
	Nadia	Krishnagar	29°633	29°628	+0°19	E	107	92°3	22nd	78°7	25th	90°2	79°4	84°9
	Khulna	Jessore	29°654	29°634	+0°04	SEly	90	92°0	22nd	78°0	20th	90°1	79°5	84°8
	Burdwan	Burdwan	29°547	29°632	+0°15	ESE	41	92°1	22nd	79°2	20, 24, 25	89°8	84°3	85°1
SOUTH-WEST BENGAL.	Burdwan	Raniganj	29°544	29°625	+0°17	Variable	71	95°7	22nd	76°8	23, 24	92°6	77°7	85°2
		Bankura	29°546	29°593	—0°05	Ely	81	93°1	22nd	77°5	24—26	89°5	78°3	83°9
	Murshidabad	Berhampore	29°621	29°636	+0°09	SEly	07	91°7	23rd	79°3	25th	89°5	80°3	84°0
	Pabna	Sirajganj	29°655	29°651	—0°01	Calm	41	90°1	23rd	78°3	23rd	86°7	90°4	88°6
NORTH BENGAL.	Bogra	Bogra	29°624	29°637	+0°27	Calm	64	92°2	23rd	76°2	23rd	89°1	78°3	83°7
	Rajshahi	Rampur Balia	29°616	29°635	+0°19	Variable	114	91°6	23rd	78°1	26th	88°7	79°1	83°0
	Malda	Malda	29°604	29°635	—	SE	49	92°0	23rd	79°5	23rd	91°1	80°5	85°8
	Dinajpur	Dinajpur	29°580	29°655	+0°21	SE	46	94°1	23rd	77°2	23rd	90°0	80°1	85°5
NORTH BENGAL.	Rangpur	Rangpur	29°587	29°663	+0°18	ESE	30	91°3	23rd	76°2	23rd	91°0	79°2	85°1
	Jalpaiguri	Jalpaiguri	29°441	29°677	+0°41	NEly	44	93°4	23rd	76°1	23rd	90°6	77°7	84°2
	Kuch Bihar	Darjeeling	22°902	—	+0°37	Variable	74	71°1	22nd	66°7	20th	69°2	57°0	62°1
	Sikkim	Gangtok	19°002	—	—	Variable	63	57°9	22nd	36°1	24th	55°6	38°6	47°1
EAST BENGAL.	Chittagong	Chittagong	29°641	29°675	—0°20	Ely	74	88°7	26th	76°1	23rd	86°7	77°5	82°1
	Chittagong Hill Tracts	Demagiri	29°676	29°634	—0°02	Calm	66	91°8	21st Aug.	77°7	23, 24 Aug.	88°8	79°1	84°0
	Backergunge	Barisal	29°663	29°653	—0°19	SE	187	88°5	21st	75°8	25th	86°7	77°8	82°3
	Noakhali	Noakhali	29°670	29°664	—0°01	SE	77	89°5	23rd	78°9	21rd	87°4	80°8	84°1
EAST BENGAL.	Faridpur	Faridpur	29°672	29°642	—0°11	SEly	110	91°1	23rd	78°2	26th	89°0	79°6	84°3
	Dacca	Dacca	29°675	29°658	—0°14	E	76	91°8	23rd	75°8	25th	89°1	78°0	83°6
	Tippera	Comilla	29°652	29°692	—0°06	ENE	67	92°7	23rd	77°0	25th	87°8	78°5	83°2
	Mymensingh	Mymensingh	29°570	29°647	+0°23	Calm	19	93°2	23rd	77°2	23rd	90°3	80°1	85°2
NORTH BENGAL.	Purnea	Purnea	29°519	29°631	+0°26	Calm	31	92°7	21, 22	77°0	24th	90°0	78°9	84°0
	Bhagalpur	Bhagalpur	29°621	29°639	+0°13	ESE	102	92°0	23rd	77°2	23rd	90°0	81°3	85°7
	Muzaffarpur	Muzaffarpur	29°507	29°637	—	ESE	71	91°7	22nd	76°2	23rd	89°3	79°3	84°4
	Champaran	Motihari	29°449	29°620	+0°15	ENE	86	94°2	22nd	76°0	21, 24	91°6	79°0	85°4
NORTH BENGAL.	Saran	Chapra	29°495	29°627	+0°33	ESE	97	94°3	22nd	76°6	24th	90°0	79°0	85°0
	Shahabad	Dohri	29°307	29°610	—0°01	E	168	94°3	21st	75°5	23rd	89°0	78°9	84°4
	Shahabad	Huxar	29°421	29°614	+0°08	E	133	92°5	21st	75°8	22—24	90°0	78°0	84°0
		Arrah	29°467	29°607	+0°17	Variable	41	91°4	21st	77°0	22—24	92°0	79°1	85°6
SOUTH BENGAL.	Gaya	Gaya	29°281	29°607	+0°03	E	143	95°5	22nd	75°8	22nd	92°9	78°7	85°8
	Patna	Bankipore	29°483	29°616	—0°02	E	127	92°5	22nd	73°2	23rd	90°0	79°5	84°8
	Monghyr	Monghyr	29°181	29°625	+0°15	SSW	68	92°1	22nd	77°2	24th Aug.	89°6	78°3	84°0
	Sonhal Pargannas	Naya Dumka	27°674	29°611	+0°07	Variable	180	89°2	22nd	70°3	24th	85°8	72°2	79°1
CHOTA NAAGPUR.	Hazaribagh	Hazaribagh	27°648	29°602	0	SE	154	87°5	21st	71°4	20, 24	83°5	72°5	78°0
	Lohardaga	Ranchi	28°886	29°580	—0°03	Calm	17	93°4	22nd	76°2	20th	89°1	77°2	83°2
	Palamau	Daltonganj	29°431	29°717	+0°18	Variable	—	95°1	24th	77°0	25th	90°2	79°5	84°9
	Sibsagar	Sibsagar	29°396	29°664	+0°07	Variable	83	88°7	24th	76°8	23rd	87°1	78°6	82°18
ASSAM.	Goalpara	Dhubri	29°034	29°680	—0°10	Calm	—	98°0	23rd	74°3	25th	90°0	77°4	88°7
	Goalpara	Silchar	29°034	29°680	—0°10	Calm	—	98°0	23rd	74°3	25th	90°0	77°4	88°7

\* Mean of 6 days.

**Explanation.—Summary.**—The normal means of air pressure and temperature are the arithmetical average or means of the readings during the same period. The humidity of the atmosphere is expressed as percentage, saturated air being presented by 100. A clear sky is denoted by 0 and an overcast sky by 101 rainfall the normal mean are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional stations district, i.e. from total rainfall at the subdivisional stations in the district sending in returns divided by the number of stations. A rainy day is one of

for the week ending Saturday, the 26th of August 1893.

DISTRICT OBSERVATIONS.															DISTRICT.	
Variation from normal mean. Mean 8 A.M. temperature. Average humidity at 8 A.M. Average cloud amount at 8 A.M. Rainfall of week at observing station.					OF WEEK.			RAINFALL.								
					Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Since 1st of month.			Since 16th May 1893.				
									Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.		
—	83.7	88	6.3	2.87		2.40		3.76		10.17				31.90	Puri.	
—0.3	80.9	91	3.9	1.02												Outtack.
+1.3	83.7	84	7.1	0.99												Salasore.
+0.7	82.0	83	6.9	4.49	2.09		3.79		9.64					33.30	24 Parganas.	
+1.7	82.8	92	4.7	1.59	2.54		3.67		10.01					34.08		Midnapore.
+1.5	82.9	87	4.1	1.03	1.66	3.35	3.25	3.40	6.45	12.25	—5.80	49.57	35.50	+13.07		
+1.7	82.5	87	8.4	1.18	1.06	3.17	2.00	4.11	7.90	12.05	—4.15	48.31	37.50	+10.81	Howrah. Hooghly.	
+1.8	83.3	91	9.4	0.70												Nadia.
					1.10 1.05	3.35 2.90	3.00 3.33	4.03 3.96	5.48 7.20	11.73 12.31	—0.25 —5.01	47.23 46.41	35.96 36.10	+11.27 +10.23		
+2.7	85.3	85	7.9	0.24	0.95	2.82	2.20	3.34	6.91	10.67	—3.76	45.24	33.67	+11.57	Khulna. Jessore.	
+1.3	83.1	90	7.1	1.71	1.80	2.79	2.80	3.47	7.62	11.41 10.84	+0.39 —3.22	55.40 40.27	39.78 35.54	+15.71 +4.69		
+1.3	83.0	84	8.9	0.37	1.25	2.96	2.25	3.55	5.44	11.16	—5.72	41.90	33.17	+8.82		Burdwan.
+2.5	81.4	90	0.3	1.00											Bankura. Birbhum. Murshidabad.	
+2.3	81.9	89	7.6	2.50	1.94	3.91	3.25	4.48	8.02	12.58	—4.56	47.00	37.94	+9.06		
+1.6	82.0	92	8.9	0.17	0.51	2.31	2.00	3.43	7.97	11.44 10.22	—5.10 —2.25	30.15 37.17	39.20 33.83	+9.95 +14.31		
+0.7	82.3	90	8.9	1.70	1.11	3.03	2.00	3.25	11.27	10.51	+0.76	58.44	35.98	+23.46	Pabna.	
+1.3	83.2	86	4.4	3.02	2.23	2.20	2.00	3.30	10.68	9.46	+1.23	47.34	30.07	+8.27	Bogra.	
+1.4	83.7	88	5.4	1.05	1.06	2.22	2.67	3.34	9.30	9.13	+0.26	40.04	35.08	+14.91	Rajshahi.	
—	81.7	87	4.0	0.49	0.50	2.52	2.00	3.49	7.14	9.80	—2.72	39.03	35.93	+3.10	Malda.	
+1.8	83.1	89	7.5	0.83	1.77	2.90	2.00	3.45	8.30	9.50	—0.70	49.59	33.90	+10.69	Dinajpur.	
+1.7	83.3	88	4.0	1.41	0.65	2.40	1.50	2.91	11.08	9.76	+1.32	62.03	51.98	+10.05	Rangpur.	
+1.5	81.3	87	6.9	2.01	2.47	3.36	4.00	4.05	23.41	20.50	+2.91	84.05	83.83	+0.22	Jalpaiguri.	
					3.06	3.60	3.25	3.30	16.94	16.80	+0.14	87.34	76.84	+10.50	Kuoh Bazar.	
+0.7	80.2	97	9.9	3.75	3.50	5.80	4.50	6.12	20.85	23.20	+3.59	95.08	93.20	+1.88	Darjeeling.	
—	48.0	92	9.3	2.23											Sikkim.	
+1.2	81.1	90	7.4	0.02	0.90	4.45	2.50	3.98	2.61	22.23	—1.62	110.00	85.98	+24.02	Onitawong.	
					1.85	3.69	4.00	5.16	14.08	17.24	—2.26	81.43	59.40	+22.03	Onitawong Hill.	
+2.0	82.0	88	8.7	1.13	1.04	3.08	2.50	4.50	11.04	14.03	—2.99	61.43	54.34	+7.09	Tracts.	
+1.6	82.8	93	2.0	2.68	2.53	5.45	3.00	4.91	20.62	23.73	+3.70	95.41	78.88	+16.53	Backergunge.	
+1.8	83.1	88	7.1	0.91	0.65	2.82	2.00	3.66	9.75	11.02	—1.27	52.53	39.02	+13.51	Noakhali.	
+0.5	82.5	90	8.0	0.49	0.36	2.85	1.50	3.79	11.18	11.97	—0.79	53.00	42.43	+10.57	Faridpur.	
+2.1	81.0	98	6.4	3.70	2.45	3.42	3.75	4.02	18.80	16.20	—1.40	55.78	48.98	+6.80	Dacca.	
+0.7	82.0	91	7.3	2.38	2.03	2.92	2.80	3.93	17.29	11.68	+5.61	72.13	47.04	+25.09	Tippera.	
+1.8	83.7	87	3.6	3.12	1.19	3.38	1.33	3.61	12.85	11.22	+0.63	55.23	43.72	+11.51	Mymensingh.	
+1.0	83.7	85	6.3	0.06	0.37	2.36	1.25	3.29	7.65	9.53	—1.88	31.70	30.36	+1.34	Purnea.	
+1.9	83.3	89	6.1	1.77	1.34	1.86	2.00	2.54	9.81	8.65	+1.20	20.10			Bhagalpur.	
—	82.6	90	5.4	1.52	0.80	1.80	2.33	2.68	8.39	8.42	—0.03	32.67	28.41	+4.26	Darbhanga.	
+1.7	83.0	67	6.0	0.02		2.01		2.47		10.04			30.90		Muzaffarpur.	
+1.3	82.7	87	9.1	0.09	0.91	1.67	2.00	2.49	8.21	7.99	+0.22	27.75	27.48	+0.27	Champeran.	
+2.2	83.0	86	2.3	3.12											Saran.	
+0.2	82.7	80	6.4	1.72		2.40		3.06		9.75			26.99		Shahabad.	
+1.8	83.1	89	2.6	1.26											Gaya.	
+1.6	82.3	84	5.9	1.90	2.27	2.94	2.50	2.95	7.10	10.27	—3.17		29.10			Patna.
+0.4	83.9	84	8.0	1.55	1.68	2.35	2.25	2.88	7.63	8.83	—1.20	33.00	28.21	+4.79		Monchyr.
+1.0	82.0	86	5.6	1.06	1.32	2.63	2.00	3.71	9.57	10.34	—0.77	44.57	34.17	+10.40	Sonthal Parganas.	
+1.2	77.1	88	8.9	3.09		3.43		4.36		12.06			35.38		Hazaribagh.	
+1.5	76.0	90	6.1	1.40	0.79	3.73	3.50	4.47	10.07	13.08	—3.01		36.13		Lohardaga.	
						2.63		3.50		9.76			20.25		Falguni.	
+2.0	80.6	88	9.1	0.87	0.87	2.78	3.00	3.80	9.28	12.24	—2.96	42.25	37.14	+5.11	Singhbhum.	
+1.0	82.2	90	7.0	1.89	1.95	2.97	3.00	4.13	9.85	11.06	—1.78	51.21	33.15	+18.06	Manbhum.	
0	80.0	91	7.7	1.79											Assam.	
+0.6	80.1	91	9.1	0.96												

for the last ten years. The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater. The numbers denoting cloud amount represents the part of the sky covered the whole sky being denoted by 10. Under the head District observations of for the period in question during the past ten years. The means of the district are the numerical average of the rainfall returned received in the which at least a tenth of an inch fall.







## Statement of Rainfall in Bengal for the week ending Saturday (8 a.m.), the 26th of August 1893—concl'd.

Meteorological Division.	District.	Station.	RAINFALL.							Total number of rainy days.	Rainfall of week.	Average rainfall of week.	Total rainfall since 1st of month.	Average total rainfall from 1st of month.	Total rain fall since 16th May 1893.	Average rainfall from 16th May to date.
			Sunday, 20th.	Monday, 21st.	Tuesday, 22nd.	Wednesday, 23rd.	Thursday, 24th.	Friday, 25th.	Saturday, 26th.							
NORTH BENGAL—continued.	Moultaurpur...	Sitamarhi ...	...	...	0.02	0.27	...	0.16	...	2	4.17	1.76	7.81	8.31	41.38	28.15
		Muzaffarpur ...	...	0.17	0.02	0.05	0.06	0.33	0.01	3	1.65	1.01	10.40	8.32	28.83	28.92
		Hajipur ...	...	...	0.23	0.42	0.01	...	...	2	0.65	1.73	6.88	8.03	27.82	28.15
		Paru ...	...	...	...	...	0.50	...	0.42	2	0.02	...	...	...	...	...
		Mahua (Chilwarra) ...	...	...	...	0.50	...	...	...	1	0.50	...	8.95	...	...	...
		Sitahar ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Purri ...	...	...	0.20	0.10	0.11	...	...	3	0.02	1.62	10.02	9.83	55.30	29.51
		Moulhari ...	...	...	...	...	...	0.20	...	...	...	10.50	10.22	...	32.40	...
		Bettiah ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Ragaha ...	...	...	0.03	0.20	0.16	...	0.02	2	0.50	...	10.31	7.44	24.86	...
SOUTH BENGAL	Saran ...	Rurhurua ...	...	...	...	...	0.88	...	0.14	2	1.02	1.44	9.31	7.44	33.72	27.52
		Gopniganj ...	...	...	...	...	...	...	...	3	1.04	1.76	8.22	8.30	27.73	27.86
		Sivan ...	0.21	...	0.70	1.37	0.20	...	0.32	5	2.90	...	6.50	...	...	...
		Ekina ...	...	...	0.03	0.60	0.03	...	...	1	0.60	1.68	7.02	8.26	23.88	27.06
		Chopra ...	...	...	...	0.90	...	...	...	1	0.90	...	7.90	...	...	...
		Sreepore ...	...	...	...	0.56	...	...	...	1	0.56	...	...	...	...	...
		Annar ...	...	...	...	...	...	...	...	1	0.21	...	...	...	...	...
		Basantpur ...	...	...	0.21	0.60	0.08	0.13	...	3	1.55	2.50	7.20	8.50	24.30	25.00
		Buxar ...	...	...	...	1.64	0.41	0.15	...	4	3.12	2.91	6.11	10.31	26.35	27.17
		Dahri ...	...	...	...	2.16	0.40	...	...	2	2.65	2.94	8.51	10.48	28.54	28.54
SOUTH BENGAL	Shahabad ...	Shahabad ...	...	...	...	...	...	...	...	3	0.53	2.13	8.25	10.22	27.16	27.16
		Shahabad ...	0.10	...	0.23	...	0.06	...	...	3	...	2.36	...	0.11	27.08	...
		Sasaram ...	...	...	0.43	...	...	...	...	...	3.00	...	14.25	...	...	...
		Arrah ...	1.90	...	1.70	...	...	...	...	2	...	...	...	...	...	...
		Mohana ...	...	...	0.40	...	...	...	...	1	2.40	...	...	...	...	...
		Khari ...	...	...	1.70	...	0.30	...	...	2	2.70	...	6.48	...	25.58	...
		Agara ...	...	0.20	...	2.35	...	0.41	...	2	...	...	7.95	...	27.00	...
		Ramgarh ...	...	...	...	1.42	0.40	...	...	3	3.58	...	6.21	...	...	...
		Kawal ...	...	...	0.43	1.35	0.80	...	...	3	3.26	...	9.13	...	30.06	...
		Sikraul ...	...	0.45	...	2.71	0.07	...	...	2	...	...	...	...	...	...
SOUTH BENGAL	Bakura ...	Bakura ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Aurangabad ...	...	...	0.08	4.03	0.11	0.16	...	3	4.38	4.62	6.42	11.52	25.31	30.17
		Gaya ...	...	...	0.85	0.45	...	...	...	2	1.30	2.23	5.81	9.17	28.54	29.50
		Nawadah ...	...	...	1.57	0.03	...	...	...	2	2.20	2.70	9.57	9.70	31.91	27.98
		Jahanabad ...	0.10	...	0.43	1.51	0.35	0.07	...	3	1.21	2.54	7.12	10.12	44.48	28.32
		Arwal ...	...	...	0.30	1.75	0.42	0.04	...	3	2.18	...	5.87	...	25.64	...
		Daudnagar ...	...	...	...	3.47	0.40	...	...	2	3.83	...	8.91	...	26.81	...
		Shergah ...	...	...	0.45	...	...	...	...	2	0.85	...	8.65	...	31.78	...
		Rajauli ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Pakri Barawan ...	...	...	1.12	2.02	...	...	...	2	3.14	...	0.07	...	...	...
SOUTH BENGAL	Patna ...	Patna ...	...	...	0.36	1.02	0.03	...	0.14	3	1.55	1.84	7.44	8.51	35.02	28.34
		Dunapore ...	...	...	0.27	0.24	0.07	...	0.06	2	0.68	2.56	0.77	9.30	34.61	28.32
		Bihar ...	...	...	1.58	0.51	...	...	...	2	2.09	2.00	8.35	0.12	36.43	29.3
		Burh ...	...	...	1.55	0.85	...	...	...	2	2.40	2.30	7.95	8.35	27.82	26.71
		Bakram ...	...	...	0.44	1.81	...	0.00	...	2	2.37	...	7.35	...	36.79	...
		Hilso ...	...	...	0.45	0.20	...	...	...	2	0.05	...	5.08	...	...	...
		Bogusarai ...	...	...	2.66	1.33	...	...	...	2	3.90	2.32	10.42	8.81	41.72	27.21
		Mouhyr ...	...	...	3.30	2.80	0.10	...	...	3	6.20	3.39	11.76	10.10	35.96	30.6
		Jamui ...	...	...	1.03	0.24	...	...	...	2	2.17	2.39	8.30	10.30	29.12	30.71
		Gopri ...	...	...	0.11	0.48	0.31	...	...	3	1.00	...	8.11	...	...	...
SOUTH BENGAL	Southal Far- gates.	Shahpura ...	...	...	1.05	...	...	...	...	1	1.05	...	5.47	...	37.10	...
		Shahpura ...	...	...	...	0.50	...	...	...	1	0.50	...	4.43	...	39.71	...
		Shahpura ...	...	...	0.34	...	...	...	...	...	...	...	...	...	...	...
		Shahpura ...	...	...	...	0.47	0.09	...	...	1	0.56	...	4.62	8.31	36.40	34.1
		Shahpura ...	...	0.18	0.04	0.55	0.27	...	...	3	1.04	2.44	6.13	10.32	30.2	30.2
		Shahpura ...	...	...	0.05	0.07	0.76	...	...	1	0.88	...	11.87	0.34	55.44	35.0
		Shahpura ...	...	...	...	0.04	0.16	0.02	...	2	1.06	2.61	13.71	12.92	36.20	36.2
		Shahpura ...	...	...	...	1.61	...	...	...	1	1.61	...	8.61	11.02	34.93	34.1
		Shahpura ...	...	...	0.25	2.30	0.10	0.07	...	3	2.72	2.82	12.11	14.00	44.00	34.0
		Shahpura ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
SOUTH BENGAL	CHOTA NAGPUR.	Hazaribagh ...	...	...	1.08	2.00	0.05	0.17	...	3	3.30	2.50	13.42	10.80	40.53	32.8
		Pachumb ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Hazaribagh ...	0.03	...	0.37	2.04	0.36	0.14	0.15	5	3.09	2.06	9.10	12.12	50.31	33.2
		Santa ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Ward ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Ward ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Ward ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Ward ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Ward ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Ward ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
SOUTH BENGAL	SOUTH BENGAL	Ward ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Ward ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Ward ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Ward ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Ward ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Ward ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Ward ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Ward ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Ward ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Ward ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Explanation.—... indicates that no rain has fallen. If the return for any day has not been received, the corresponding space is left blank. If any of the returns wanting, the corresponding space in the total rainfall column may be left blank. With reference to the column of rainy days, the definition of a rainy day is when at least 0.1 inches of rain has fallen.

CALCUTTA, the 29th August 1893.

**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSER-  
VATIONS TAKEN IN ASSAM, FOR THE WEEK ENDING 8 A.M.,  
SATURDAY, THE 26TH OF AUGUST 1893.**

THE weather during the week just past has been influenced chiefly by a small depression, which appeared in the early part of the week to be crossing Burma from the east. It caused considerable changes of pressure at the stations on the Burma coast, and gave some indication of becoming an important disturbance. But after crossing the east coast of the Bay there was no increase of intensity, and it slowly drifted westward towards Ganjam, which it crossed between the 22nd and 23rd. It led to a fairly complete cyclonic circulation, but there was nothing approaching to rough weather, even on the west coast after it had passed inland. One peculiarity in connection with it was the trough of low pressure which remained along its track across the north of the Bay, a low-pressure area which appeared to have a centre not far from the Orissa coast for some days. The depth was very small, but it served to keep up the cyclonic circulation in the north of the Bay, and over the province for days after the larger depression was shown over the central parts of the country.

The conditions attending the depression during the present week are in many respects similar to those reported as being caused by a slight depression in the previous week. The most important is the comparative absence of rainfall, or speaking more generally, the failure of the depression to lead to disturbed conditions which would have been accompanied by increased precipitation. Under ordinary circumstances a depression such as that which recently crossed the Bay would have developed considerably while over the sea and, have been accompanied by squally weather and heavy rainfall, especially near its centre, but in this case the rainfall was not even general, and on an average, for the districts most under its influence (Orissa, South-West Bengal and Chota Nagpur), it was much under the average. The inference to be drawn from the experience of the past two weeks is that present circumstances are very unfavourable for rainfall, or in other words that the monsoon from the Bay is much weaker than usual. As these conditions when once established, to whatever causes they may be due, are found to remain very persistent, it appears likely that an absence of rainfall will remain a prominent feature in the near future, perhaps for some weeks.

Before the approach of the depression, that is, during the first two days of the week, light southerly winds were blowing in all districts, and settled weather prevailed, the light showers which occurred in places being of little account. After the depression was in the north of the Bay, northerly and afterwards easterly winds became general, and rainfall increased both in amount and extent. The falls were almost general on Wednesday and Thursday, when the centre of lowest pressure was crossing Ganjam and the south of Orissa, but during the latter half of the week there was again only partial rainfall. The light easterly winds continued, temperature was steadily above the normal, and pressure at inland stations underwent only small oscillations, such as are characteristic of settled weather.

*Pressure.*—The pressure arrangement, which has prevailed with very little modification throughout the week, is as follows:—readings have been above the normal in the northern districts and at times over the whole province, while over the Bay there has been a defect, which increased to rather more than a tenth of an inch while the depression was passing. There was a general brisk or moderate fall during the first two days of the week, followed generally by a slow rise or irregular changes during the remaining days. The mean difference from the normal varies from excess of .03 inch in the northern districts to defect of .04 inch in Orissa.

*Temperature* has been steadily above the normal both by day and night except at a few places where the air was temporarily cooled by local storms. The means for the week are therefore above the normal in all the larger divisions, excess varying from half a degree in Assam to nearly 2° in South-West Bengal.

*Rainfall.*—As stated above, only local showers, generally light, fell except for two days in the middle of the week, when rainfall was fairly general. The average falls are below the normal in all districts. In South Bihar and Orissa defect is about .06 inch; in North Bengal 1 inch; in Chota Nagpur and North Bihar between 1 and 1.5 inches; and in Lower Bengal between 1.5 and 2 inches.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 26th of August 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.							RAINFALL.								
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.		Rainy days.		Since 1st of month.		Since 16th May 1893.			
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.		
Orissa .. ..	91.7	76.3	88.7	78.8	83.8	+0.0	1.93	2.58	-0.65	3.06	3.74	-0.68	7.28	10.19	36.63	13.27
South-West Bengal ..	95.7	76.8	86.0	79.3	84.7	+1.0	1.16	2.98	-1.82	2.48	3.77	-1.29	7.45	11.43	45.22	35.77
North Bengal ... ..	94.3	76.1	89.7	79.3	84.5	+1.2	1.66	2.03	-0.37	2.24	3.41	-1.17	11.53	11.20	56.91	47.87
East Bengal ... ..	92.7	75.8	87.9	78.8	83.6	+1.1	1.73	3.36	-1.63	2.72	4.11	-1.39	14.14	14.42	66.50	53.18
North Bihar ... ..	94.3	76.2	86.5	79.6	85.1	+1.3	0.84	2.20	-1.36	1.83	3.00	-1.17	9.42	9.44	37.92	31.80
South Bihar ... ..	95.5	73.2	90.7	78.7	84.8	+1.1	2.04	2.61	-0.57	2.32	3.10	-0.78	8.16	9.87	34.63	29.84
Chota Nagpur ... ..	93.4	70.3	86.1	74.0*	80.1*	+1.6	2.00	3.28	-1.19	3.10	4.20	-1.10	8.95	11.98	42.77	34.74
Assam ... ..	98.6	74.3	89.1	78.6	83.7	+0.5										

\* Daltonganj not included.

METEOROLOGICAL OFFICE, BENGAL, C. LITTLE,  
The 29th August 1893. Offg. Meteorological Reporter to the Govt. of Bengal.

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 20th to 26th August 1893.



MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.						HYGROMETRY.			Rainfall, past 24 hours
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
August	20th	29.682	85.7	92.6	13.7	78.8	86.6	82.5	1.058	81.0	84	0.12
"	21st	657	86.0	92.0	12.0	80.0	88.6	83.5	1.081	81.6	80	
"	22nd	629	86.3	92.0	11.4	80.6	87.1	81.5	1.002	79.3	78	0.03
"	23rd	626	83.4	88.0	9.2	78.8	85.9	82.3	1.057	80.9	85	0.26
"	24th	678	84.4	90.0	11.2	78.8	86.6	81.5	1.010	79.5	80	0.32
"	25th	686	84.1	90.0	11.8	78.2	86.4	82.0	1.034	80.2	82	0.23
"	26th	710	84.9	90.0	10.2	79.8	85.8	81.5	1.026	79.8	83	

The mean 10 A.M. pressure of the seven days	...	...	Inches. 29.667
The mean temperature of the seven days	...	...	85.0
The extreme variation of temperature	...	...	14.3
The maximum temperature	...	...	92.6
The mean 10 A.M. relative humidity of the seven days	...	...	% 82
The total fall of rain from 20th to 26th August 1893	...	...	Inch. 0.96
The daily mean temperatures are the crude means of maximum and minimum temperatures.			

J. H. GILLILAND,  
For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA,  
The 28th August 1893.

Results of the Meteorological Observations taken at the Alipore Observatory from  
20th to 26th August 1893.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahrt.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
Augt.	20th	150.5	7.3	29.645	84.4	89.7	11.0	78.7	80.7	1.002	79.3	85	SE by S, SW by W, SSW.	84	0.03	Partially cloudy, d.
"	21st	152.7	4.2	29.610	84.9	89.6	9.1	80.5	81.5	1.012	80.2	86	SW by S, SW by W, and S.	96	0.03	Chiefly cloudy, o g, d.
"	22nd	154.8	5.4	29.575	85.0	89.9	9.5	80.4	81.3	1.022	79.9	85	E and SSE	62	0.20	Partially cloudy, o, p.
"	23rd	145.0	2.9	29.580	82.9	87.5	9.3	78.2	80.1	0.993	79.0	88	SSE, ESE and SE	130	0.61	Chiefly cloudy, o, d, p, t.
"	24th	110.7	4.7	29.614	83.6	88.1	9.4	78.7	80.2	0.989	78.9	86	ESE and SE	113	0.21	Chiefly cloudy, o, d, p, t. 
"	25th	144.8	3.6	29.626	83.4	88.0	9.8	78.2	80.3	0.992	79.0	87	SE and ESE	85	0.01	Chiefly cloudy, o, d.
"	26th	152.5	4.5	29.657	83.0	87.6	8.7	78.9	80.4	1.002	79.3	89	ESE and SE	85	0.35	Chiefly cloudy, o, p. 

The mean pressure of the seven days	...	...	...	Inches.	29.615
The average pressure of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	29.606
The total number of hours of bright sunshine	...	...	...	Hours.	32.7
The maximum possible number of hours of sunshine	...	...	...	...	89.1
The mean temperature of the seven days	...	...	...	...	83.9
The average temperature of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	83.0
The extreme variation of temperature	...	...	...	...	11.7
The maximum temperature	...	...	...	...	89.9
The highest velocity of the wind in one hour	...	...	...	Miles.	10
The highest pressure of wind on one square foot	...	...	...	lbs.	?
The mean relative humidity	...	...	...	%	87
The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	87
The total fall of rain from 20th to 26th August 1893	...	...	...	Inches.	1.44
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	3.17
The total fall from 1st January to 26th August 1893...	...	...	...	...	66.38
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	46.79

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph.


The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o, overcast; g, gloomy; d, drizzling rain; p, passing temporary showers; t, thunder; , dew.

## CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 26th August 1893,  
as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 26TH AUGUST 1893.			WEEK ENDING SATURDAY, THE 27TH AUGUST 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ... ..	447	46,010	586	201	43,050	721
Jute ... ..	77	37,250	617	64	23,075	407
Firewood ... ..	144	74,165	1,142	120	62,125	934
Other articles ... ..	681	1,88,886	2,894	863	1,94,745	2,734
Total ... ..	1,349	3,46,811	5,239	1,248	3,22,995	4,796

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

*Approximate Return of Traffic for week ended 19th August 1893, on 1,610½ miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	*274,913	Rs. A. P. *3,02,801 13 0	Mds. S. 21,84,980 0	Rs. A. P. 4,78,847 5 0	Rs. A. P. 13,753 12 0	Rs. A. P. 7,95,182 14 0	75,805	94,127½	169,932½
Or per mile of railway ...	.....	187 14 4	.....	297 5 3	8 8 5	493 12 0	.....	.....	.....
For previous 6½ weeks of half-year ... ..	1,814,985	20,37,548 9 0	1,23,76,073 0	27,86,796 1 0	84,813 11 0	49,18,158 5 0	473,710½	564,764½	1,038,475½
Total for 7½ weeks ...	2,089,897	23,40,156 8 0	1,45,01,033 0	32,64,643 6 0	1,08,647 7 0	57,13,341 3 0	549,315½	658,892½	1,208,408
COMPARISON.									
Total for corresponding week of previous year ... ..	237,856	2,28,098 6 8	21,16,955 0	4,56,354 10 3	16,517 1 7	7,01,470 2 6	73,952	86,333	160,284
Per mile of railway corresponding week of previous year ...	.....	141 10 2	.....	283 10 9	10 4 1	435 9 3	.....	.....	.....
Total for corresponding 7½ weeks of previous year ... ..	1,849,779	17,19,864 14 10	1,54,21,066 30	33,46,213 7 9	1,16,372 0 5	51,81,450 7 0	533,391	657,517	1,190,908

\* The increase is chiefly due to movements of pilgrims.

## TARKESSUR BRANCH RAILWAY.

*Approximate Return of Traffic for week ended 19th August 1893, on 22½ miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	14,963	Rs. A. P. 3,685 3 0	Mds. S. 9,490 30	Rs. A. P. 265 8 0	Rs. A. P. 0 0 0	Rs. A. P. 3,959 11 0	904	64	968
Or per mile of railway ...	.....	165 10 0	.....	11 14 11	0 0 0	177 15 5	.....	.....	.....
For previous 6½ weeks of half-year ... ..	*106,944	*25,856 15 0	147,935 0	†1,368 9 0	†68 0 0	27,258 8 0	5,541	480	6,030
Total for 7½ weeks ...	121,907	29,542 2 0	57,484 80	1,624 1 0	77 0 0	31,243 3 0	6,445	563	6,998
COMPARISON.									
Total for corresponding week of previous year ... ..	14,808	3,443 14 3	6,633 30	185 14 0	1 11 6	3,631 7 9	901	67	968
Per mile of railway corresponding week of previous year ...	.....	154 12 6	.....	8 5 8	0 1 3	163 9 5	.....	.....	.....
Total for corresponding 7½ weeks of previous year ... ..	143,107½	34,409 6 6	42,390 20	1,672 6 0	58 3 6	36,140 0 0	6,722	424	7,150

\* Deducted number of passengers 1,303 and Rs. 420  
† Added maunds 40 and deducted " 3 } on account of difference between the approximate and audited figures for the week ending 15th July 1893.  
‡ Do, " 5 }

## DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for week ended 19th August 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	10,310	13,530 6 0	39,958 20	6,353 5 0	33 0 0	10,924 11 0	6,239	2,067½	8,306½
Or per mile of railway ...	.....	83 14 2	.....	39 5 10	0 3 2	123 7 2	.....	.....	.....
For previous 6 weeks of half-year ...	*128,204	*87,738 10 0	†2,27,733 0	†39,498 15 0	†223 0 0	1,37,460 9 0	37,338	16,679	54,067
Total for 7½ weeks ...	147,516	1,01,278 0 0	2,67,690 20	45,852 4 0	255 0 0	1,47,383 4 0	43,627	19,346½	62,973½
COMPARISON.									
Total for corresponding week of previous year ...	17,116	12,408 2 5	29,948 10	4,499 12 0	45 3 3	10,953 1 8	6,766	2,200	8,966
Per mile of railway corresponding week of previous year ...	.....	76 14 0	.....	27 14 1	0 4 6	105 0 7	.....	.....	.....
Total for corresponding 7½ weeks of previous year ...	126,888½	87,607 9 8	2,75,603 10	42,752 3 6	285 10 9	1,30,545 7 11	47,519	18,195	65,714

\* Added number of passengers 180 and Rs. 702 }  
 † Deducted maunds 6,016 and .. 265 } on account of difference between the approximate and audited figures for the week ending 15th July 1893.  
 ‡ Do. .. 5 }

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., Dacca, K.-D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for the week ended 19th August 1893, on 777 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	145,960	63,580 0 0	7,00,030 0	1,73,060 0 0	12,060 0 0	2,48,000 0 0	28,100	30,671	58,771
Or per mile of railway ...	188	82 0 0	902 0	221 0 0	*2 0 0	*305 0 0	...	...	...
For previous 6 weeks of half-year ...	1,056,720	4,37,520 0 0	34,83,980 0	6,58,300 0 0	84,370 0 0	11,80,090 0 0	171,017	164,755	335,772
Total for 7 weeks ...	1,202,680	5,01,100 0 0	41,84,010 0	8,30,350 0 0	97,330 0 0	14,28,090 0 0	199,117	185,436	384,553
COMPARISON.									
Total for corresponding week of previous year ...	136,048	54,824 0 0	7,03,637 0	1,73,823 0 0	10,028 0 0	2,44,075 0 0	27,104	36,485	63,589
Per mile of railway corresponding week of previous year ...	175	71 0 0	906 0	230 0 0	*1 0 0	*302 0 0	...	...	...
Total to corresponding date of previous year ...	1,085,318	4,35,342 0 0	39,74,232 0	8,95,035 0 0	1,05,402 0 0	14,33,839 0 0	193,847	231,303	425,150

\* Excluding steamer earnings.

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for the week ended 19th August 1893, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	34,020	10,000 0 0	53,170 0	5,370 0 0	40 0 0	16,373 0 0	3,139	2,747	5,886
Or per mile of railway ...	272	88 0 0	425 0	43 0 0	...	131 0 0	...	...	...
For previous 6 weeks of half-year ...	209,460	65,440 0 0	2,56,100 0	10,360 0 0	570 0 0	87,370 0 0	23,093	11,788	34,881
Total for 7 weeks ...	243,480	76,400 0 0	3,09,270 0	24,730 0 0	610 0 0	1,01,740 0 0	26,232	14,535	40,767
COMPARISON.									
Total for corresponding week of previous year ...	25,793	8,098 0 0	51,971 0	4,088 0 0	35 0 0	12,521 0 0	3,137	2,533	5,670
Or per mile of railway corresponding week of previous year ...	206	65 0 0	416 0	37 0 0	...	102 0 0	...	...	...
Total to corresponding date of previous year ...	230,671	67,640 0 0	3,13,698 0	23,306 0 0	625 0 0	91,472 0 0	26,836	14,533	41,369

## DACCA STATE RAILWAY.

Approximate Return of Traffic for the week ended 19th August 1893, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	13,090	4,590 0 0	26,060 0	1,290 0 0	260 0 0	6,140 0 0	2,487	737	3,224
Or per mile of railway ...	150	53 0 0	303 0	15 0 0	3 0 0	71 0 0	...	...	...
For previous 6 weeks of half-year ...	97,320	29,830 0 0	87,150 0	5,000 0 0	900 0 0	35,390 0 0	15,369	4,445	19,814
Total for 7 weeks ...	110,910	39,420 0 0	113,210 0	6,890 0 0	1,220 0 0	41,530 0 0	17,856	5,182	23,038
COMPARISON.									
Total for corresponding week of previous year ...	25,294	6,753 0 0	15,152 0	1,120 0 0	49 0 0	7,931 0 0	2,628	710	3,338
Per mile of railway corresponding week of previous year ...	294	78 0 0	176 0	13 0 0	1 0 0	92 0 0	...	...	...
Total to corresponding date of previous year ...	118,050	36,461 0 0	91,513 0	6,259 0 0	1,456 0 0	44,175 0 0	18,865	4,837	23,702

## BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIRHUT STATE RAILWAY.)

Approximate return of traffic for the week ending 19th August 1893, on 756 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-bout.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs.	Mds.	Rs.	Rs.	Rs.			
Total traffic for the period on 756 miles open ...	92,830	33,020	1,90,240	28,509	9,640	60,220	12,428	15,567	27,995
Or per mile of railway ...	122.79	43.68	251.64	36.13	12.75	91.56	...	...	...
For previous 64 weeks of half-year ...	542,730	2,12,440	18,84,620	2,00,770	80,300	4,70,010	80,117	95,582	175,699
Total for 74 weeks ...	635,560	2,45,460	15,74,860	2,26,690	75,940	5,48,230	92,545	111,149	203,694
COMPARISON.									
Total for corresponding period of previous year on 756 miles open ...	84,614	28,433	2,31,894	29,874	8,592	66,809	13,844	14,018	27,862
Per mile of corresponding week of previous year ...	112.07	37.06	308.46	39.57	11.39	88.61	...	...	...
Total to corresponding date of previous year ...	509,438	2,15,157	19,58,060	2,49,085	55,825	5,20,667	97,683	116,443	214,126

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

	Rs.	A.	P.
Approximate earnings for the week ending 12th August 1893 ...	9,911	0	0
Corresponding period of 1892 ...	9,272	6	0
Increase ...	639	0	0
Receipts per mile for the week ending 12th August 1893 ...	194	5	4
Corresponding period of 1892 ...	181	12	10
Increase ...	12	8	6
Receipts from 1st to 12th August 1893 ...	65,180	0	0
Corresponding period of 1892 ...	64,032	0	0
Increase ...	1,148	0	0





# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, SEPTEMBER 6, 1893.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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Antwerp International Exhibition of 1894 under the High Patronage of His Majesty the King of the Belgians	1637	Results of the Meteorological Observations taken at the Alipore Observatory from 27th August to 2nd September 1893	1659
Rainfall, Weather, and State and Prospects of the Crops	1641	Vital statistics of Districts of Bengal for the month of July 1893	1660
Prices-current (retail) of Food-grains Firewood and Salt in the Head-quarters Station Bazaars of the Districts of Bengal on the 31st August 1893	1646	Areas leased for irrigation up to the end of July 1893	1664
Meteorological report of the Province of Bengal for the week ending Saturday, the 2nd of September 1893	1652	Circular and Eastern Canals for the week ending Saturday, the 2nd of September 1893	1665
Statement of Rainfall in Bengal for the week ending Saturday (8 a.m.), the 2nd of September 1893	1654	Weekly Return of Traffic Receipts on Indian Railways	1665

## IRRIGATION OPERATIONS OF CANALS IN BENGAL DURING THE RABI SEASON 1892-93.

No. 9971.

GOVERNMENT OF BENGAL—PUBLIC WORKS DEPARTMENT.

Irrigation.

*Dated Calcutta, the 4th September 1893.*

### RESOLUTION.

READ—

Statements Nos. I, II, and III, showing irrigation operations of canals in Bengal during the *rabi* season 1892-93.

OBSERVATIONS.—The area irrigated during the *rabi* season of 1892-93 was 1,18,408 acres against 2,04,142 acres in 1891-92, showing a decrease of 41·9 per cent.

2. This falling-off was due to the exceptionally large area of *rabi* irrigated in 1891-92, which cannot be retained in years of ordinary rainfall. The area was, however, larger in 1892-93 than in any previous year, excepting 1891-92 and 1877-78.

3. The rainfall in eight districts averaged 2·02 inches more than that of 1891-92. In the three districts watered by the Sone Canals the fall averaged 33·36 inches against 17·31 inches in 1891-92.

4. There was no irrigation of *rabi* crop in 1892-93 from the Midnapore Canal, while from the Eden Canal the areas irrigated in Burdwan and Hooghly districts exceeded those of 1891-92 by 1,489 and 561 acres respectively. In the Sone Circle, owing to the increase of rainfall, there was a general decrease in the areas irrigated.

5. The details of the increase or decrease in the irrigation of the *rabi* crops from each canal during the year 1892-93, compared with those of the previous year, are given in the following statement:—

CANAL.				AREAS IRRIGATED IN RABI SEASON.		More.	Less.
				1891-92.	1892-93.		
				Acres.	Acres.	Acres.	Acres.
Orissa	{	Taldanda Canal	...	386	264	.....	72
		Kendrapara Canal	...	3,523	2,008	.....	1,515
		High Level Canal, Ranges I, II, and	...	84	212	128	.....
		III, and Jajpur Canal.	...				
Midnapore Canal		...	...	68	.....	.....	68
Eden Canal		...	...	9	2,059	2,050	.....
Sone	{	Patna Canal	...	19,053	9,659	.....	9,394
		Arrah „	...	51,432	44,235	.....	7,197
		Buxar „	...	1,27,097	57,749	.....	69,348
Saran Canal		...	...	2,540	2,222	.....	318
Total				2,04,142	1,18,408	2,178	87,912
Net decrease				.....	.....	.....	85,734

ORDER.—Ordered that a copy of this Resolution and of the statements Nos. I, II and III be published in the *Calcutta Gazette* and submitted to the Government of India, Public Works Department, for information.

Ordered also that copies of this Resolution and of the statements be forwarded to the Commissioners of the Orissa, Burdwan and Patna Divisions; the Collectors of the Cuttack, Midnapore, Burdwan, Hooghly, Patna, Shahabad, Gaya, and Saran Districts; the Superintending Engineers of the Orissa, South-Western and Sone Circles; and the Examiner of Public Works Accounts, Bengal, for information.

By order of the Lieutenant-Governor of Bengal,

C. W. ODLING,

Secretary to the Govt. of Bengal.

## No. L.—RABI STATEMENT.

## GOVERNMENT OF BENGAL, PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH.

## IRRIGATION OPERATIONS FOR THE RABI SEASON, 1892-93.

## Comparative Statement of Irrigation and Rainfall in Canal Districts of Bengal.

Districts.	Area in acres.	Culturable acres.	Area irrigated.		1892-93 as compared with 1891-92.		Rainfall for four months.										Remarks.
			1891-92.	1892-93.	Increase.	Decrease.	November.		December.		January.		February.		Total.		
							1891.	1892.	1891.	1892.	1892.	1893.	1892.	1893.		1891-92.	
1		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
Cuttack	...	Information not available.	Acres.*	Acres.	Acres.	Acres.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	Average rainfall of 10 stations.
Balasore	...		3,921	2,483	...	1,438	7-77	0-86	...	...	...	2-13	0-22	1-66	7-99	4-66	Naraj rainfall is incorrect and is not included.
Midnapore	...		22	1	...	21	5-14	0-77	...	...	...	1-38	0-09	3-05	5-23	5-20	Average rainfall at Bhadrak and Aquapada stations.
Burdwan	...		68	...	...	68	0-18	4-90	...	...	...	0-35	0-17	4-35	0-35	9-60	Rainfall at Midnapore station.
Hoochly	...	Information not available.	9(a)	1,498(a)	1,489	...	0-39	0-58	...	...	0-70	...	...	5-58	0-39	6-86	Ditto at Edilpore station.
	...		...	561(a)	561	...	...	...	...	...	...	...	...	...	...	...	No rain-gauge stations on the Tidal Reaches of the Midnapore Canal, and lower section of the Eden Canal in the Hoochly district.
Gaya	...		12,226	5,030	...	7,196	...	...	...	...	...	0-35	0-10	1-50	0-10	1-85	Rainfall at Daudnugger station.
Patna	...		1,329,920	4,629	...	2,198	...	0-02	...	...	...	0-06	0-83	1-23	1-63	1-29	2-48	Ditto at Patna station.
Shahabad	...	2,806,400	178,529	101,984	...	76,545	...	...	...	...	0-09	0-59	1-35	2-41	1-44	3-00	Ditto at Arrah station.
Saran	...	1,680,000	2,540	2,222	...	318	...	...	...	...	...	1-36	0-94	1-31	0-94	2-67	Ditto at Siwan station.
Total	...	.....	204,142	118,408	2,050	87,784	...	...	...	...	...	...	...	...	...	...	

\* As per Revenue Report for 1891-92.  
(a) Irrigated by the Eden Canal only.

CALCUTTA,

O. C. LEES,  
Offg. Under-Secy. to the Govt. of Bengal.

The 4th September 1893.



## No. III.—RABI STATEMENT.

## IRRIGATION OPERATIONS OF FASL RABI, 1892-93.

Statement in acres of crops irrigated by Canals in Canal Divisions.

NATURE OF CROPS.	REMARKS.									
	Taldanda Canal.	Kendrapara Canal.	High Level Canals, Ranges I, II and III and Jaipur Canal.	Midnapore Canal.	Eden Canal.	Patna Canal.	Arrah Canal.	Buxar Canal.	Saran Canal.	Total.
	Mahanadi.	Brahmini-Byturni.	Acquapada-Jaipur.	Cossye.	N. D. and Embankment Division.	Eastern Sone.	Arrah.	Buxar.	Gandak.	
1	2	3	4	5	6	7	8	9	10	11
Garden and orchards ...	17	63	3	...	206	8	27	20	...	439
Sugarcane ...	...	...	...	...	1,763	341	3,715	2,255	...	8,074
Wheat ...	...	1	...	...	...	1,328	10,572	26,655	1,921	39,477
Barley ...	...	...	...	...	...	2,022	9,089	7,537	...	18,648
Rice ...	...	532	200	...	...	...	...	...	...	741
Zeera ...	...	...	...	...	...	...	...	2,755	...	2,755
Miscellaneous ...	...	...	...	...	...	1,698	403	...	...	2,104
Gram, &c. ...	...	...	...	...	...	787	6,718	2,938	...	10,437
Pulse ...	197	627	...	...	...	116	9,174	14,113	...	24,126
Miscellaneous ...	...	...	...	...	...	...	41	...	...	41
Fodder crops ...	...	...	...	...	...	...	...	...	...	673
Grass, lucerne ...	...	...	...	...	...	...	...	...	135	428
Cotton ...	41	638	...	...	...	27	3	...	...	32
Fibres ...	...	213	...	...	...	...	...	...	...	...
Indigo ...	...	1	...	...	...	...	...	...	...	...
Turneric, &c. ...	8	...	...	...	...	798	515	246	105	1,864
Opium ...	...	...	...	...	...	...	...	...	...	...
Drugs ...	...	...	...	...	...	...	...	...	...	...
Tobacco, &c. ...	...	...	...	...	...	...	128	101	...	229
Mustard, &c. ...	...	...	...	...	...	...	4	...	...	67
Oilseeds ...	1	28	...	...	...	24	3,824	2,135	11	8,431
Castor ...	...	...	...	...	...	2,511	...	...	...	...
Miscellaneous ...	...	...	...	...	...	...	...	...	...	...
Hot weather ...	...	...	...	...	...	...	...	...	...	...
Total Rabi, 1892-93	264	2,008	212	...	2,059	9,559	44,235	57,749	2,222	118,408
Total Rabi, 1891-92	336	3,523	84	68	9	19,053	51,432	1,27,097	2,540	204,142

CALCUTTA,

O. C. LEES,

The 4th September 1893.

Offg. Under-Secy. to the Govt. of Bengal.

No. I.—ANNUAL STATEMENT.

GOVERNMENT OF BENGAL, PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH.

IRRIGATION OPERATIONS FOR THE YEAR 1892-93.

Comparative Statement of Irrigation and Rainfall for the years 1891-92 and 1892-93 in Canal Districts of Bengal.

Districts.	Area in acres.	Culturable acres.	AREA IRRIGATED.										RAINFALL.			
			Kharif, 1892-93.			Rabi, 1892-93.			Whole year, 1892-93.				1891-92.	1892-93.	Percent. age of increase or decrease.	
			Total area.	In comparison with Kharif, 1891-92.		Total area.	In comparison with 1891-92.		Total area.	In comparison with 1891-92.						
				Increase.	Decrease.		Increase.	Decrease.		Increase.	Decrease.					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Cuttack ...	...	Information not available.	126,722	...	11,831	2,483	...	1,433	129,205	...	13,269	10.3	55.96	39.28	(-) 29.80	
Balasore ...	...		31,448	...	4,741	1	...	21	31,449	...	4,762	15.1	53.08	40.15	(-) 22.47	
Midnapore ...	...		87,366	3,837	...	...	...	68	87,366	3,769	...	...	4.3	42.86	30.37	(-) 29.14
Burdwan ...	...		40,221	28,176	...	1,498	1,489	...	41,719	29,665	...	...	11.1	30.24	26.37	(-) 12.79
Hooghly ...	...		37,624(a)	35,224	...	561	561	...	38,185	35,785	...	...	93.7	...	...	...
Gaya ...	3,015,680	2,356,000	39,071	5,130	...	5,030	...	7,195	44,101	...	2,666	4.7	12.35	21.89	(+) 77.24	
Patna ...	1,329,920	1,039,000	28,280	...	12,816	4,629	...	2,198	32,909	...	15,014	45.6	19.46	42.06	(+) 116.13	
Shahabad ...	2,806,400	2,192,500	206,822	4,718	...	101,984	...	76,545	308,806	...	71,827	23.2	20.11	36.13	(+) 79.66	
Saran ...	1,680,000	1,312,500	1,431	...	1,994	2,222	...	318	3,653	...	2,312	63.2	19.87	38.81	(+) 70.15	
Total	...	...	597,985	77,085	31,382	118,408	2,050	87,784	716,393	69,219	109,260	5.5	...	...	...	
Net increase			...	...	45,703	Net decrease			...	85,734	Net decrease			...	40,031	

CALCUTTA,

(a) Includes 36,982 acres irrigated by the Eden Canal.

O. C. LEES,

The 4th September 1893.

Offy. Under-Secy. to the Govt. of Bengal.

No. II.—ANNUAL STATEMENT.

IRRIGATION OPERATIONS FOR THE YEAR 1892-93.

Statement in acres of crops irrigated in Canal Districts.

NATURE OF CROPS.	Cuttack.	Balasore.	Midnapore.	Burdwan.	Hoghtly.	Gaya.	Patna.	Shahabad.	Saran.	Total.
1	2	3	4	5	6	7	8	9	10	11
Garden and orchards	87	1	...	102*	104*	8	...	47	...	439
Sugarcane	90	168	...	1,305†	457†	688	...	19,130	...	21,834
Wheat	1	...	...	...	...	1,138	200	36,227	1,921	39,477
Barley	...	...	...	...	...	1,037	965	16,626	...	18,648
Rice	126,973	31,280	87,966	40,221	37,624	38,683	28,280	183,717	1,239	674,783
Cereals	...	...	...	...	...	...	...	2,755	...	2,755
Zoera	...	...	...	...	...	1,734	...	630	62	2,426
Miscellaneous	...	...	...	...	...	279	508	9,650	...	10,437
Gram, &c.	724	...	...	...	...	115	...	23,287	...	24,126
Miscellaneous	...	...	...	...	...	...	...	41	...	41
Grass, lucerne	...	...	...	...	...	...	...	...	...	...
Fodder crops	679	...	...	...	...	...	...	...	...	...
Fibres	213	...	...	...	...	10	17	...	185	679
Dyes	9	...	...	...	...	...	...	23	...	428
Indigo	...	...	...	...	...	...	...	761	...	32
Turmeric, &c.	...	...	...	...	...	344	454	...	105	1,664
Opium	...	...	...	...	...	...	...	...	...	...
Drugs	...	...	...	...	...	...	...	...	...	...
Tobacco, &c.	...	...	...	...	...	...	...	229	...	229
Mustard, &c.	...	...	...	...	...	24	...	4	...	57
Castor	29	...	...	...	...	31	2,480	5,959	11	8,481
Oilseeds	...	...	...	...	...	...	...	9,727	130	9,857
Miscellaneous	...	...	...	...	...	...	...	...	...	...
Hot weather	...	...	...	...	...	...	...	...	...	...
Total, 1892-93	128,205	31,449	87,366	41,719	38,185	44,101	32,909	308,806	3,653	716,393
Total, 1891-92	141,474	36,211	83,597	12,054	2,400	46,167	47,923	380,633	5,965	756,424

\* Onions &c.  
† Includes potato.

CALCUTTA,

O. C. LEES,

The 4th September 1893.

Offg. Under-Secy. to the Govt. of Bengal.

## No. III.—ANNUAL STATEMENT.

## IRRIGATION OPERATIONS FOR THE YEAR 1892-93.

## Statement in acres of crops irrigated by Canals in Canal Divisions.

NATURE OF CROPS.	TALUKAS.									
	Taldanda Canal.	Kendrapara Canal.	High Level Canals, Ranges I, II and III, and Jaipur Canal.	Midnapore Canal.	Eden Canal.	Patna Canal.	Arrah Canal.	Buxar Canal.	Saran Canal.	Total.
	Mahanadi.	Brahmini-Byturni.	Acquapada-Jaipur.	Cossye.	Northern Drainage and Embankment.	Eastern Sone.	Arrah.	Buxar.	Gandak.	
1	2	3	4	5	6	7	8	9	10	11
Garden and orchards ...	17	68	3	...	296	8	27	20	...	439
Sugarcane ...	52	34	168	...	1,763	693	12,254	6,866	...	21,834
Wheat ...	...	1	...	...	...	1,328	10,572	25,655	...	39,477
Barley ...	...	...	...	...	...	2,022	9,089	7,537	1,921	18,648
Rice ...	34,327	67,502	55,824	88,008	77,203	66,963	139,799	73,918	1,289	574,783
Zoera ...	...	...	...	...	...	...	...	2,755	62	2,755
Miscellaneous ...	...	...	...	...	...	1,784	402	228	...	2,426
Gram, &c. ...	...	...	...	...	...	787	6,718	2,832	...	10,437
Miscellaneous ...	197	527	...	...	...	115	9,174	11,113	...	24,126
Fodder crops ...	...	...	...	...	...	...	41	...	...	41
Fibres ...	41	658	...	...	...	...	...	...	...	679
Dyes ...	...	213	...	...	...	...	...	...	185	428
Indigo ...	8	1	...	...	...	27	3	...	...	32
Turneric, &c. ...	...	...	...	...	...	798	615	246	105	1,654
Opium ...	...	...	...	...	...	...	...	...	...	...
Tobacco, &c. ...	...	...	...	...	...	...	...	101	...	229
Mustard, &c. ...	...	...	...	...	...	...	...	...	...	57
Castor ...	1	28	...	...	...	24	4	2,135	11	8,481
Miscellaneous ...	...	...	...	...	...	2,511	3,824	3,063	130	9,557
Hot weather ...	...	...	...	...	...	...	4,684	...	...	...
Total, 1892-93	34,643	69,016	55,936	88,008	79,262	77,010	167,237	141,569	3,653	716,393
Total, 1891-92	41,906	74,209	61,570	83,973	14,078	94,090	181,123	109,510	5,965	756,424

CALCUTTA,

O. C. LEES,

The 4th September 1893.

Offn. Under-Secy. to the Govt. of Bengal.



NOTIFICATION—No. 3065Mis.

*The 3rd September 1893.*—The following is published for general information.

M. FINUCANE,  
*Offg. Secy. to the Govt. of Bengal.*

ANTWERP INTERNATIONAL EXHIBITION OF 1894 UNDER THE HIGH  
PATRONAGE OF HIS MAJESTY THE KING OF THE BELGIANS.

HONORARY PRESIDENT HIS ROYAL HIGHNESS THE COUNT OF  
FLANDERS.

FOREIGN SECTIONS.

GENERAL NOTICE.

*(Taken from the general Rules.)*

The Antwerp International Exhibition will include all Industrial, Scientific and Artistic Productions, as well as all Commercial Produce. It will comprise Maritime, Colonial and African Sections; also an Exhibition of Military Art.

Simultaneously with the General Exhibition, the Antwerp Royal Society of Fine Arts will hold a special exhibition of Painting, Sculpture, Engraving and Architecture, to which Artists of all countries are invited to contribute.

It is also intended to hold a series of shows and exhibits of Live Stock, Agricultural Products, Flowers, Fruit, etc.

The Exhibition will be inaugurated May 5th, 1894, and will remain open for six full months, closing at latest on November 12th, 1894.

It will be located in the new quarter of the city, in close vicinity of the Scheldt and the new maritime installations, and will be connected with the principal Railways.

It will cover in one enclosure an area of about 200 acres, including (1) a Palace of Fine Arts; (2) Several Halls covering about 120,000 square yards of ground, and intended for exhibiting Industrial and Commercial products, Machinery, Electric appliances, etc. These halls will be built of iron and steel and will be roofed with zinc.

A Board of Directors conduct the business of the Antwerp International Exhibition Company and decide all matters of Administration and Finance.

An Executive Committee under the honorary Presidency of Baron Osy van Zegwaart, Governor of the Province of Antwerp, and M. Jan Van Ryswyck, Burgomaster of the city, and under the effective Presidency of Count de Pret Roose de Calesberg, Member of the Senate, has charge of the organization and management of all Exhibits in the different departments.

By Decrees, dated 11th March 1893, Royal Commissions of the Belgian and Foreign Sections have been instituted, under the honorary Presidency of His Royal Highness the Count of Flanders. Also a Commissariat General of the Government, and General Commissions of the Belgian and Foreign Sections.

The Belgian Commission is presided over by M. Leon De Bruyn, Minister of Agriculture, Industry and Public Works.

The Foreign Commission under the Presidency of M. Valere Mabile has for its object to encourage and facilitate the co-operation of Foreign Exhibitors.

The Commissariat General of the Government, whose headquarters are at the *Palais des Académies* in Brussels, is conducted by Count Hyppolyte d'Ursel, who represents the Government at the Antwerp International Exhibition, and is the official Referee between the Executive Committee of the Company and the Commissaries of the Belgian and Foreign Sections; also between the latter and the Foreign Commissaries delegated with the Exhibition in all matters where the interests of Foreign Exhibitors are concerned.

The Commissary General of Foreign Sections, M. Verduyssen-Brack, Member of the Senate, co-operates with the Commissary General of the Government in all negotiations with Foreign Countries, especially as regards the appointment of the Commissaries of the Foreign Sections.

The Foreign Governments have been officially advised of the formation of this International Exhibition; they have been invited to appoint their official Commissaries to represent them.

Committees for furthering the objects of the Exhibition may be formed in the principal cities or towns of the world under approval of the Belgian Government, and with the co-operation of its Diplomatic and Consular Agents abroad.

Where no official Commissary has been appointed, foreign Exhibitors may be represented by a private Committee or its delegate.

All products will be divided into classes, as per summary hereafter given, and will be exhibited in accordance with this classification in all the separate sections.

In the halls for Machinery and Electricity the products of each country will be exhibited together as far as the distribution of motive power will allow.

The charge for space in the different compartments, including general decoration of the halls, and the reception of goods, has been established according to position as follows :—

#### I.—HALLS OF INDUSTRY.

##### *Collective space.*

Ground space.	(a) Depth not exceeding 1 metre—			
	<i>Per lineal metre frontage</i>	...	...	fr. 60
	(b) Depth exceeding 1 metre—			
	<i>Per square metre, ground surface</i>	...	...	„ 60
Wall space.	(c) <i>Per lineal metre frontage</i>	...	...	„ 60

The charge for collective space allotted will in no case be less than ... .. „ 60

##### *Detached spaces.*

(a) Measured at the greatest dimension, the smallest being below 1 metre.			
<i>Per lineal metre frontage</i>	...	...	„ 90
(b) Both dimensions exceeding 1 metre.			
<i>Per square metre ground surface</i>	...	...	„ 90

The charge for detached space allotted will in no case be less than ... .. „ 90

##### CENTRAL GALLERIES.

In the Central Galleries the charge will be	Collective space—		
	<i>Per square metre</i>	...	„ 90
	Detached spaces—		
	<i>Per square metre</i>	...	„ 130

Charge for rooms having at least 5 metres frontage and 5 metres depth.	Single frontage—		
	<i>Per square metre</i>	...	„ 70
	Corner frontage—		
	<i>Per square metre</i>	...	„ 90

The allotted space will be measured at the greatest length and width above the floor.

#### II.—HALLS OF MACHINERY AND ELECTRICITY.

*For all non-working Machinery and exhibits of any height.*

(a) The depth not exceeding 1 metre—			
<i>Per lineal metre frontage</i>	...	...	fr. 60
(b) The depth exceeding 1 metre—			
<i>Per square metre ground surface</i>	...	...	„ 60

The charge for space in this department will in no case be less than ... .. „ 60

*For all working Machinery, receiving its motive power from steam, water, gas, electricity, or general transmission, and working at least five hours daily and four days weekly, the above charges will be reduced one-half.*

The allotted spaces will be measured at the greatest length and width above the floor.

#### III.—MARITIME INSTALLATIONS, GARDENS, SHEDS AND TENTS.

*Of whatever height.*

(a) The depth not exceeding 1 metre—			
<i>Per lineal metre frontage</i>	...	...	fr. 25
(b) The depth exceeding 1 metre—			
<i>Per square metre ground surface</i>	...	...	„ 25
The charge for space in this department will in no case be less than	...	...	„ 25

For space allotted under sheds or tents, the above charges will be increased by fr. 5 per metre.

*For large spaces taken in the halls of gardens by the different countries, special terms will be arranged through the intervention of the Commissary General of the Belgian Government.*

Foreign Goods, arriving by the Belgian State Railways, will be returned carriage free over the same lines. Negotiations have been opened with the private Companies and the Foreign Lines in connexion with the Belgian State Railways, to obtain the same terms from them.

Most of the regular Lines of Steamers will take goods for the Antwerp Exhibition at reduced rates of freight.

The Antwerp International Exhibition Company undertakes the handling of Goods within the Exhibition, free of charge, on all packages received not later than April 15th, 1894, and not exceeding 1,500 kilos in weight. This includes the delivery of the packages on the space allotted, and the eventual re-loading on the Railway trucks within the limits of the exhibition.

Empty packages will be stored at a low rate, and brought back for repacking at the close of the Exhibition.

*The Executive Committee will arrange special terms for handling Goods and storing Empties with all Countries officially represented.*

The general decoration of the Exhibition halls will be carried out at the expense of the Company; all private and special decorations will be at the expense of Exhibitors singly or collectively.

Strict watch and guard will be established to prevent goods being stolen, strayed or damaged, without, however, any responsibility being incurred by the Company in this respect.

All Exhibitors will be free to appoint at their own expense and under their own responsibility any number of private Inspectors from a List approved by the Company.

The Exhibitors, whether singly or collectively, are responsible for the whole charge for rent; for the supply, fixing, and decoration of all and any special appliances they may require, such as partitions, screens, extra ceilings, stands, raised flooring, extra foundations for heavy exhibits; also for the packing, laying out and repacking of their goods, rent for storage of Empties, etc.

Exhibitors requiring steam, water, gas or electricity must declare in their application for space the hourly quantity they require. It will be supplied as per tariff.

When motive power is required, the intended rate of speed must also be indicated.

In the Halls of Machinery, motive power will be obtainable per special tariff, and will be supplied from the main shaft for general transmission.

Intermediate transmission will be at the expense of Exhibitors; the foundations and all special appliances will also be at their cost.

A copy of the particular rules and regulations further relating to this department will be sent on application.

Articles of every day sale, also those manufactured on the spot, may be sold and delivered to visitors on payment of a percentage to be fixed by agreement; but such sales may not take place in the Halls without a special and written consent of the Executive Committee. A special convention will regulate the sale of refreshments on the gardens and grounds of the Exhibition.

An International Jury of Awards will be formed, the members of which will be appointed by their respective Governments; this Jury will be organised and presided over by the Commissary General of the Belgian Government, who will also propose for appointment by the Belgian Government members of the Jury from among the delegates of countries not officially represented.

The Jury will officiate as soon as possible. The Awards will consist of Medals or Diplomas of First class; Diplomas of Gold, Silver and Bronze Medals, and of honourable Mention.

All foreign goods will be admitted to the Exhibition in bond, paying no duty of any kind if re-exported.

All inventions, patents, drawings, models, trade marks, etc., exhibited will be placed under the immediate protection of the Belgian Government, and all rights of property in them will be effectually secured.

The Executive Committee will issue an official and complete catalogue methodically arranged and containing the name and address of each exhibitor, with particulars as to trade, place of production, etc. Foreign sections will have the right of issuing at their own expense their special catalogues and of selling them within their respective limits.

The issue of tickets for the lottery authorised by the Belgian Government may extend over several series of one million tickets each; the prizes to be purchased exclusively from Exhibitors. The issue of the first series of tickets will be authorised before the opening of the Exhibition.

Printed forms of application for space are supplied by the Executive Committee or by the Commissariats of Countries officially represented. These forms must be signed, and addressed prepaid to the official Commissariat of the Country to which the intending Exhibitor belongs, or to the Executive Committee of the Exhibition, No. 9 rue Gérard, Antwerp, not later than October 1st, 1893, for all countries not officially represented.

All goods exhibited at the World's Fair, Chicago, which may be destined for the Antwerp Exhibition, will on arrival be stored free of charge in the halls, and as near as possible to their definite places.

Arrêté, en séance du Conseil d'Administration,  
à Anvers, le 25 Mai 1893.

*L'Administrateur Secrétaire,*  
HENRI BELIARD.

*L'Administrateur Président.*  
Comte PRET ROOSE de GALESBERG.

Vu :

*Pour le Comité Exécutif :*

*Le Secrétaire Général,*  
M. de RAMAIX.

*Le Vice-Président, Directeur Général*  
Alphonse HERTOFS.

Vu :

*Le Secrétaire Général du*  
*Commissariat du Gouvernement,*  
J. GODY.

*Le Commissaire Général du Gouvernement,*  
Comte Hippolyte d'URSEL.

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 2nd September, 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.																
BENGAL.																			
BURDWAN DIVN.	1 Burdwan Sept. 2, '93	0.32	Weather—hot. Rain wanted for the <i>aman</i> crop. <i>Aus</i> being harvested; about a 12-anna crop. Prices of common rice:—																
	Kalna ...	0.32																	
	Katwa ...	0.60																	
	Raniganj ...	0.23																	
			<table><tr><td>Burdwan</td><td>...</td><td>...</td><td>10 to 13</td></tr><tr><td>Kalna</td><td>...</td><td>...</td><td>9 to 12</td></tr><tr><td>Katwa</td><td>...</td><td>...</td><td>12½</td></tr><tr><td>Raniganj</td><td>...</td><td>...</td><td>12</td></tr></table> } per rupee.	Burdwan	...	...	10 to 13	Kalna	...	...	9 to 12	Katwa	...	...	12½	Raniganj	...	...	12
	Burdwan	...	...	10 to 13															
	Kalna	...	...	9 to 12															
	Katwa	...	...	12½															
	Raniganj	...	...	12															
	2 Bankura „ 2, '93	1.25	Weather—seasonable. <i>Aman</i> plants thriving. Harvesting of <i>aus</i> commenced in places. Prospects fair. Condition of cattle good. Common rice sells at 12 seers 6 chitaks per rupee at Sadar and 12 seers at Vishnupur.																
	Vishnupur	0.41																	
3 Birbhum „ 2, '93	1.50	Weather—seasonable. The crops continue good. Price of common rice stationary.																	
Rampur Hat	0.63																		
4 Midnapore „ 2, '93	0.38	There has been a little rain almost every day but the weather has been hot and less cloudy. The reports are all hopeful this week. In the <i>Sadar</i> prospects of <i>aus</i> and <i>haimanti</i> paddy good. In <i>Ghatal</i> the outturn is expected to be nearly 14 annas. In <i>Contai</i> prospect of <i>aman</i> paddy seems to be hopeful so far. In <i>Tamluk</i> , except in the flooded tract, prospects are also good. On the other hand, in some very small localities in <i>Contai</i> the crop has failed for three or four years in succession, and there is some distress which is being met by local subscriptions. Prices of common rice:—																	
		<table><tr><td>Sadar</td><td>...</td><td>...</td><td>11</td></tr><tr><td>Contai</td><td>...</td><td>...</td><td>13</td></tr><tr><td>Tamluk</td><td>...</td><td>...</td><td>11</td></tr><tr><td>Ghatal</td><td>...</td><td>...</td><td>10 to 11</td></tr></table> } per rupee.	Sadar	...	...	11	Contai	...	...	13	Tamluk	...	...	11	Ghatal	...	...	10 to 11	
Sadar	...	...	11																
Contai	...	...	13																
Tamluk	...	...	11																
Ghatal	...	...	10 to 11																
PRESIDENCY DIVN.	5 Hooghly „ 2, '93	0.14	Weather—seasonable. <i>Aman</i> transplantation still continues in Jahanabad, but is finished elsewhere. <i>Aus</i> harvest and steeping of jute in progress. Subdivisional reports generally prosperous. Fodder and water sufficient. Prices of common rice:—																
	Serampore	0.37																	
	Jahanabad	0.91																	
			<table><tr><td>Sadar</td><td>...</td><td>...</td><td>10 to 11</td></tr><tr><td>Serampore</td><td>...</td><td>...</td><td>10 to 11½</td></tr><tr><td>Jahanabad</td><td>...</td><td>...</td><td>11 to 12</td></tr></table> } per rupee.	Sadar	...	...	10 to 11	Serampore	...	...	10 to 11½	Jahanabad	...	...	11 to 12				
	Sadar	...	...	10 to 11															
	Serampore	...	...	10 to 11½															
	Jahanabad	...	...	11 to 12															
	6 Howrah „ 2, '93	0.50	Weather—cloudy; occasional rain. Transplantation of <i>aman</i> rice still continues. <i>Aus</i> paddy is being harvested in Ulubaria. Common rice selling at 10 seers per rupee. Fodder and water sufficient.																
	Ulubaria	1.26																	
	7 24-Pargannas „ 2, '93	3.11	Weather—seasonable. Transplantation of <i>aman</i> going on. <i>Aus</i> being cut. Prospects of crops fair in the north of the district, but poor in the southern part, especially in the thana of Bankipore. Prices of common rice:—																
			<table><tr><td>Sadar</td><td>...</td><td>...</td><td>10 to 10½</td></tr><tr><td>Basirhat</td><td>...</td><td>...</td><td>10</td></tr><tr><td>Barasat</td><td>...</td><td>...</td><td>10</td></tr><tr><td>Diamond Harbour</td><td>...</td><td>...</td><td>11</td></tr></table> } per rupee.	Sadar	...	...	10 to 10½	Basirhat	...	...	10	Barasat	...	...	10	Diamond Harbour	...	...	11
Sadar	...	...	10 to 10½																
Basirhat	...	...	10																
Barasat	...	...	10																
Diamond Harbour	...	...	11																
8 Nadia „ 2, '93	0.42	Weather—hot with occasional showers. Harvesting of <i>aus</i> rice nearly over; outturn varies from 8 to 16 annas. Prospects of <i>aman</i> rice very fair. Land being prepared for winter crops. Prices stationary.																	
Kushtia	0.79																		
Meherpur	0.72																		
Chuadanga	0.40																		
Ranaghat	0.31																		
9 Khulna „ 2, '93	2.30	Weather—showery. <i>Aus</i> crop being harvested. <i>Aman</i> transplanted. Jute being cut. <i>Aus</i> has been much damaged in places.																	
Bagerhat	0.14																		
Satkhira	0.42																		
10 Jessore „ 2, '93	0.88	Weather—hot with occasional showers. Harvesting of <i>aus</i> and extracting of jute in progress. Transplantation of <i>aman</i> completed. Cattle-disease reported from Salkhia. Fodder sufficient save in Mahmudpur. Prices steady.																	
Jhenida	0.32																		
Magura	0.82																		
Narail	0.33																		
Bangaon	0.54																		
11 Murshidabad „ 2, '93	1.50	Weather—very hot. Harvesting of <i>bhadoi</i> paddy finished. Winter rice doing well. Jute and mulberry being cut in some places. Fodder sufficient for cattle. Common rice sells at 11½ seers per rupee.																	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL—concd.</b>			
CHITTAGONG DIVN.	12 Chittagong Sept. 2, '93	3.26	Weather—seasonable. Harvesting of <i>aus</i> nearly over. Transplantation of <i>aman</i> still continues. Prospects fair. Condition of cattle generally good. Supply of fodder sufficient.
	13 Noakhali „ 2, '93	4.88	Weather—seasonable. Harvesting of <i>aus</i> and transplanting of <i>aman</i> continue. Prospects fair. Fodder insufficient. Cattle-disease reported from some thanas. Common rice sells from 8 to 9 seers per rupee.
	14 Tippera „ 2, '93	2.17	Weather—seasonable. From 6 to 8 annas of <i>aus</i> crop destroyed by the floods. The prospects of <i>aman</i> are looking up, and a good outturn may be expected if the water subsides fast. Jute crop was good, but water being high, it could not be cut in all places.
	15 Chittagong Hill Tracts. Aug. 31, '93	3.04	Weather—sunny with occasional showers of rain. Harvesting of <i>aus</i> paddy commenced. No vegetables available in the bazar. No cattle-disease reported. Common rice selling at 7 seers and 14 chitaks per rupee.
DACCA DIVN.	16 Dacca Sept. 2, '93	Not reported.	Weather—hot. <i>Rowa</i> and <i>shail</i> paddy being sown. Prospects of <i>aman</i> paddy fair. Harvesting of <i>aus</i> paddy and jute nearly finished. High floods have damaged these crops to some extent. Water subsiding. Common rice selling from 7 to 9 seers per rupee. Fodder not sufficiently available. No cattle-disease.
	17 Faridpur „ 2, '93	1.02	Weather—very hot, but strong south-east breeze has sprung up to-day (2nd). Water steadily falling. <i>Aman</i> doing fairly well on high lands. Sugarcane said to be doing well in Goalundo, but flood has damaged it in other places. Common rice sells from 9 to 10 seers per rupee. In many places cattle are short of fodder, especially in Goalundo and the Sadar, but no want of it in Madaripur. Some cattle-disease still.
	Goalundo „ „	0.18	
	Madaripur „ „	1.22	
	18 Backergunge „ 2, '93	0.63	Weather—seasonable. State and prospects of crops fair. Sowing or transplantation of <i>aman</i> paddy nearly over, but the crop has been damaged in places by the flood. <i>Aus</i> is expected to yield about 5 annas of an average crop. Common rice sells at from 8 to 10 seers per rupee. Fodder and water sufficient.
	Pirojpur „ „	0.74	
	Putuakhali „ „	1.84	
RAJBHARI DIVN.	Bhola „ „	1.31	Weather—fair and hot. The flood is subsiding and the transplantation of <i>aman</i> is rapidly going on. Prospects of crops are improving. Common rice is selling at 8 seers per rupee. Condition of cattle good. Fodder is not sufficient at Kishoreganj and Tangail.
	19 Mymensingh „ 2, '93	1.17	
	20 Dinajpur „ 2, '93	0.93	
	Thakurgaon „ „	0.30	Weather—hot. Prospects of standing crops continue to be good. Transplantation of <i>aman</i> paddy nearly over. <i>Bhadol</i> is being reaped, and jute is being washed. Price of rice at Sadar 12 seers per rupee and that at Thakurgaon stationary. Condition of cattle good. Fodder and drinking water sufficient.
	21 Rajshahi „ 2, '93	1.56	
	Nator „ „	0.54	
	Naugon „ „	3.56	Weather—seasonable. Sometimes intolerably hot, with occasional heavy showers. Prospects of standing crops on the whole good. No cattle-disease. Fodder and water-supply ample. Price of rice varies from 10 to 12 seers per rupee.
	22 Rangpur „ 2, '93	1.20	
	Gaibanda „ „	0.25	
	Kurigan „ „	Nil	Weather—hot and cloudy. Transplantation of <i>aman</i> in progress. Some rain would be beneficial. Price of rice unchanged.
	Nilphamari „ „	0.32	
	23 Bogra „ 2, '93	2.52	
RAJBHARI DIVN.	Sherpur „ „	2.55	Weather—unsettled. Transplantation of <i>aman</i> nearly finished. Prospects unchanged. Common rice sells at 10 seers per rupee. Fodder and water sufficient.
	Natkhila „ „	0.99	
	24 Pabna „ 2, '93	0.32	
	25 Darjeeling „ 2, '9	2.57	Weather—seasonable. In the hills:—Indian-corn, <i>bhadol</i> paddy, <i>shama</i> and <i>kangni</i> ripening and being harvested. Potatoes promise a fair crop. In the Terai:— <i>Bhadol</i> being harvested. Jute being cut and steeped. Transplanting of <i>haimanti</i> paddy almost finished. Prices of coarse rice:—
	Siliguri „ „	10.76	
	26 Jalpaiguri „ 2, '93	3.86	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR.</b>			
<b>BHAGALPUR DIV.</b>	27 Mouhbyr Begusarai Jammui	Sept. 2, '93 ... ... Nil Nil 0.24	Weather—very sultry and cloudy at times. Transplantation of paddy completed. Prospects of <i>marua</i> favourable. The recent flood of Gandak has much damaged the standing crops in the northern part of the district. Indigo and sugarcane doing well. Cattle-disease is reported from Balia, Nawadih, Shaikpura, Kharakpur, and Bakhtiarpur. Fodder and water sufficient. Prices of common rice :— <div style="text-align: right;">Srs. Sadar ... .. 12 to 15½ Begusarai ... .. 12 to 18 Jammui ... .. 12 } per rupee.</div>
	28 Bhagalpur Banks Madhipura Supaul	" 2, '93 ... ... Nil 0.50 0.12 0.24	The estimated outturn of <i>makai</i> is from 6 to 8 annas and of <i>marua</i> 12 annas. Transplantation of rice almost finished. Prospects good. Price of common rice 13½ seers per rupee.
	29 Purnea Kishanganj Araria	" 2, '93 ... ... 0.78 1.25 0.30	Weather—sultry; east winds at Kishanganj. <i>Bhadoi</i> harvest going on with good results. Jute being steeped. Transplantation of <i>aghani</i> finished in Araria subdivision, but still going on at Sadar and Kishanganj. It is slightly retarded at the latter place for want of copious rain. Fodder and water sufficient. No cattle-disease. Prices of new <i>bhadoi</i> rice :— <div style="text-align: right;">Srs. Sadar ... .. 14 to 20 Kishanganj ... .. 16 Araria ... .. 19 } per rupee.</div>
	30 Malda	" 2, '93 1.37	Weather—hot, clear and cloudy at intervals. <i>Bhadoi</i> paddy still being reaped. Transplanting of winter rice nearly over. Washing of jute continues. Price of rice again rising owing to large exportation to the eastern districts. No want of fodder or drinking water.
	31 Sonthal Parganas Deoghur Jamtara Pakur Rajmahal	" 2, '93 ... ... 0.65 Nil 0.12 Nil 0.84	Weather—very hot and cloudy. Slight rain in Rajmahal, Dumka and Jamtara. Paddy crops doing well, though a little rain is required for <i>aghani dhan</i> on high lands. Fodder and water sufficient. Rice selling at the same rate as last week.
	32 Patna Barh Bihar Dinapore	" 2, '93 ... ... 0.63 Nil Nil 0.06	Weather—hot and sunny. The need of rain is reported from the south of the district, whereas in Gaya the fall has been up to now not excessive. Prospects of rice good. <i>Bhadoi</i> crops are being harvested. Prices of common rice :— <div style="text-align: right;">Srs. Sadar ... .. 15 Barh ... .. 12½ Bihar ... .. 15 Dinapore ... .. 13 } per rupee.</div>
	33 Gaya Jhannabad Aurangabad Nawada	" 2, '93 ... ... 0.02 0.07 0.25 0.10	Weather—very hot. Harvesting of <i>bhadoi</i> crops progressing with poor outturn. Transplantation of paddy approaching completion: prospects favourable; but rain much wanted. Common rice sells from 11 to 15 seers per rupee. Fodder and water-supply sufficient.
	34 Shahabad Buxar Bhabhua Sasaram	" 2, '93 ... ... Nil 0.30 Nil Nil	Weather—close. Paddy thriving well. Sugarcane promising. <i>Bhadoi</i> crops being harvested. More rain wanted on high lands for paddy. Fodder sufficient. Prices stationary.
	35 Darbhanga Madhubani	" 2, '93 ... 1.61 0.36	Weather—very hot and sometimes cloudy. Rain wanted in parts of district. Flood water has almost subsided. The loss of crops in the flooded parts has been most severe. Extent of damage still being ascertained. Retransplantation of paddy in progress where seedlings are available. Fodder difficultly daily diminishing. Price of common rice stationary. There has been a rise in the prices of <i>makai</i> and <i>marua</i> .
	36 Muzaffargarh Hajipur Sitamarhi	" 2, '93 ... ... 2.92 0.10 0.86	Weather—hot, fair and sometimes cloudy. Crops very materially damaged in Sadar and Sitamarhi subdivisions by the late floods. The <i>bhadoi</i> has been lost over an extensive area, and is also not good in Hajipur subdivision. Prospects of rice fair except where it was washed away by the floods. No disease among cattle. Fodder and water sufficient.
<b>PATNA DIVISION.</b>			

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.															
BIHAR—concl'd.																		
PATNA DIVISION—concl'd.	37 Saran Sept. 2, '93	Nil	Weather—hot and unusually bright. A heavy local thunderstorm at Bausopali, 3 miles from Siwan, on the 31st August, with 6 inches of rain. Prospects good on the whole at present, but rice beginning to suffer from want of moisture. Indigo second crop giving better produce than the first. Water and fodder plentiful. Prices of common rice:— <table><tr><td>Chapra</td><td>...</td><td>...</td><td>...</td><td>Srs. 13</td></tr><tr><td>Siwan</td><td>...</td><td>...</td><td>...</td><td>13</td></tr><tr><td>Gopalganj</td><td>...</td><td>...</td><td>...</td><td>14½</td></tr></table> } per rupee.	Chapra	...	...	...	Srs. 13	Siwan	...	...	...	13	Gopalganj	...	...	...	14½
	Chapra	...		...	...	Srs. 13												
	Siwan	...		...	...	13												
	Gopalganj	...		...	...	14½												
Siwan	...	Nil																
Gopalganj	...	1.02																
	38 Champaran „ 2, '93	0.25	Weather—bright and very hot with occasional light showers. In many places in the area affected by the recent flood fresh <i>aghani</i> seedlings are being planted out. Prospect of <i>aghani</i> in places not affected by the flood is good. Fodder and water sufficient. Prices stationary.															
ORISSA.																		
ORISSA DIV.	39 Cuttack „ 2, '93	3.83	Weather—cloudy with fine rain and heavy showers occasionally. No change in the state and prospects of crops since last report. Price of common rice stationary.															
	40 Puri Aug. 31, '93	4.01	Weather—seasonable. Rainfall sufficient except in portions of the Gope and Banpur thanas where it is somewhat deficient. <i>Beali</i> being reaped. Transplantation of <i>saral</i> still going on in places. Miscellaneous crops doing well. Prices of common rice:— <table><tr><td></td><td></td><td></td><td>Srs. c.</td><td>Srs. c.</td></tr><tr><td>Sadar</td><td>...</td><td>...</td><td>11 13 to 15</td><td>12</td></tr><tr><td>Khurda</td><td>...</td><td>...</td><td>11 0 to 17</td><td>1</td></tr></table> } per rupee.				Srs. c.	Srs. c.	Sadar	...	...	11 13 to 15	12	Khurda	...	...	11 0 to 17	1
					Srs. c.	Srs. c.												
	Sadar	...		...	11 13 to 15	12												
Khurda	...	...	11 0 to 17	1														
Khurda	...	4.40																
Banpur	...	1.40																
	41 Balasore Sept. 2, '93	3.67	Weather—seasonable; cloudy with heavy showers. Transplantation almost finished except in lands liable to flood. Fair prospect of a 12-anna rice crop. In Balasore price of rice has fallen to 16 seers per rupee.															
CHOTA NAGPUR.																		
South-West Frontier Agency.																		
CHOTA NAGPUR DIV.	42 Hazaribagh Sept. 2, '93	0.13	Weather—bright with passing clouds and very warm. Indian-corn has yielded very poorly. Rice crops very promising. Sowings of oil-seeds in progress. Fodder and water ample. Prices more or less stationary.															
	Giridi	...		0.25														
	43 Lohardaga „ 2, '93	1.03	Weather—hot and cloudy. Reaping of <i>gora</i> paddy continues. Prospect of winter rice good. Common rice selling at 16 seers per rupee. Fodder and water sufficient.															
	44 Palaman „ 1, '93	0.37	Light monsoon weather. <i>Bhadai</i> crops estimated at about 2 annas. Paddy promises well at present, but more rain will soon be required in some parts. Rice selling at 11 seers 7 chitaks to 16 seers 4 chitaks per rupees. A little cattle-disease reported.															
	45 Singhbhum „ 2, '93	1.77	Weather—seasonable; sunny alternating with showers of rain. Crops doing well. <i>Gora dhan</i> being harvested with 12 annas outturn. Crops on ground expected to yield 12 to 16 annas. Price of rice 12 to 14 seers per rupee.															
	46 Manbhum „ 2, '93	0.96	Weather—bright and occasionally showery. Weather generally very favourable. <i>Gora dhan</i> is being harvested. Prospects so far good. Prices stationary.															
Gobindpu	...	0.40																

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 5th September, 1893.

M. FINUCANE,  
Offg. Secy. to the Govt. of Bengal.



**PRICES-CURRENT (*RETAIL*) OF FOOD-GRAINS, FIREWOOD AND SALT IN THE  
HEAD-QUARTERS STATION BAZARS OF THE DISTRICTS OF BENGAL,  
DURING THE FORTNIGHT ENDING THE  
31st AUGUST 1893.**

## PRICES-CURRENT (retail) of Food-grain and Salt in the

Number.	DISTRICTS.	WHEAT.			BARLEY.			RICE, BEST SORT.		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
BENGAL.										
BURDWAN DIVISION.	1 Burdwan ...	13 6	13 8	12 15	...	...	...	9 8	9 4	9
	2 Bankura ..	14 3	13 14	11 0	...	...	...	10 10	10 4	10
	3 Birbhum ...	12 0	12 0	11 4	...	...	...	10 8	10 8	10
	4 Midnapore ...	11 0	11 0	10 8	...	...	...	10 0	10 0	10
	5 Hooghly ...	13 15	13 15	12 5	17 0	17 3	14 9	8 0	8 0	8
	6 Howrah ...	...	...	...	...	...	...	8 13	8 13	8
PRESIDENCY DIVISION.	7 Calcutta ...	12 7	12 8	11 0	16 13	17 1	14 12	7 4	7 7	7
	8 24-Parganas ...	11 12	11 8	11 8	20 0	20 0	16 0	7 0	8 0	8
	9 Nadia ..	14 8	14 8	12 0	...	21 0	20 0	9 0	8 7	8
	10 Khulna ...	...	...	...	...	...	...	9 0	8 0	8
	11 Jessore ...	11 8	11 8	11 0	13 0	13 0	...	8 8	8 8	8
	12 Murshidabad ...	12 0	12 0	12 0	...	...	...	9 0	9 0	9
CHITTAGONG DIVISION.	13 Chittagong ...	10 0	10 0	10 0	...	...	...	8 8	9	9
	14 Noakhali ...	...	...	...	...	...	...	7 4	8	8
	15 Tippera ...	10 0	10 0	7 8	...	...	...	7 0	8	8
	16 Chittagong Hill Tracts.	...	...	...	...	...	...	...	...	...
DACCA DIVISION.	17 Dacca ..	11 0	11 0	10 8	...	...	...	7 0	...	...
	18 Faridpur ...	15 0	16 0	14 0	18 0	18 0	...	8 0	...	...
	19 Backergunge ...	...	...	...	...	...	...	8 0	...	...
	20 Mymensingh ..	9 8	9 8	9 8	...	...	...	7 0	...	...
RAJSHAH DIVISION.	21 Dinajpur ...	13 0	13 0	10 0	16 0	...	16 0	9 0	...	...
	22 Rajshahi ...	15 12	13 8	12 0	24 0	24 0	18 12	8	...	...
	23 Ranpur ...	13 16	13 5	11 4	...	...	...	10	...	...

- A In the subdivisions the retail prices of salt per rupee are:—Kalna 10 seers  
 B At Vishnupur the retail price of salt is 10 seers per rupee.  
 C At Rampur Hat the retail price of salt is 11 seers per rupee.  
 D In the subdivisions the retail prices of salt per rupee are:—Cont  
 E In the subdivisions the retail prices of salt per rupee are:—Serampore  
 F At Ulubaria the retail price of salt is 11 seers per rupee.  
 G In the parts in the interior of the district the retail prices of salt  
 seers 10 chitaks, Baduria 11 seers, Bagerhat 10 seers 10 chitaks.  
 H In the subdivisions the retail prices of salt per rupee are:—Kushti  
 seers, and Ranaghat 10 seers.  
 I In the subdivisions the retail prices of salt per rupee are:—Bagerhat 8 seers and Bagerhat  
 J In the subdivisions the retail prices of salt per rupee are:—Jhenida 10 seers, Magura 10 seers, Bangaon 10 seers  
 Narail 9 seers 10 chitaks.

KANGNI OR KAKUN, ITALIAN MILLER, (Setaria italica.)			GRAM, CHAN CHEOLA, KADAI OR SUNAGA. (Cicer arietinum)		
Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.

S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.
...	...	...	...	20 0	19 0	14 12	...	...	...
...	...	...	...	16 0	16 0	13 0	...	...	...
...	...	...	...	18 0	18 0	14 0	...	...	...
...	...	...	...	14 8	14 8	13 0	...	...	...
...	...	...	...	16 10	16 10	14 0	...	...	...

8 6	8 4	10 0	14 0	15 3	14 0
8 0	8 0	7 0	20 0	20 0	14 8
...	...	...	22 10	22 0	14 14
...	...	...	12 0	12 8	13 0
...	...	...	17 0	17 0	14 8
...	...	...	19 0	19 0	16 0

...	...	...	10 8	10 8	10 8
...	...	...	11 8	12 0	9 0
...	...	...	11 8	13 0	13 0

...	...	...	14 0	14 0	13 0
...	...	...	13 0	13 0	13 0
...	...	...	13 5	13 0	13 3
...	...	...	12 8	12 8	12 8

...	...	...	18 0	16 0	12 0
...	...	...	19 8	21 0	15 12
...	...	...	15 0	16 0	13 0

## Head-quarters Station Bazars of the Districts of Bengal on the 31st August, 1893.

															WHOLESALE PRICES PER MAUND OF 40 SEERS.			DISTRICTS.	Number.															
INDIAN-CORN OR MAIZE. (Zea Mays.)			ARHAR OR THUR, CADJAN PEA. (Cajanus Indicus.)			FIREWOOD.			SALT.			SALT.																						
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.																				
S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.										
...	...	...	23	0	23	0	16	4	108	0	108	0	100	0	11	8	11	9	12	0	3	8	0	3	8	0	3	5	4	Burdwan.	1			
...	...	...	13	6	16	0	16	0	280	0	280	0	220	0	10	10	10	5	10	0	3	12	0	3	14	0	3	10	0	Bankura.	2			
...	...	...	14	0	14	0	12	0	160	0	160	0	160	0	11	0	11	0	10	4	3	10	6	3	10	6	3	11	0	Birbhum.	3			
...	...	...	19	0	19	0	17	0	200	0	200	0	240	0	10	12	10	12	11	0	3	11	6	3	11	6	3	8	0	Midnapore.	4			
...	...	...	11	7	11	7	11	0	160	0	160	0	120	0	11	6	11	6	10	5	3	5	0	3	5	0	3	5	0	Hooghly.	5			
...	...	...	12	8	12	8	10	10	105	0	105	0	106	0	10	10	10	10	10	3	8	0	3	8	0	3	8	0	Howrah.	6				
19	6	20	0	15	3	18	4	18	12	15	3	85	0	90	0	85	0	11	0	10	14	11	6	3	9	0	3	10	0	Calcutta.	7			
16	0	16	0	...	...	20	0	21	0	17	0	100	0	100	0	100	0	11	0	11	0	11	0	3	6	0	3	6	0	24-Parganas.	8			
...	...	...	24	8	24	8	17	12	128	0	128	0	...	...	10	8	10	8	10	10	3	10	0	3	10	0	3	7	0	Nadia.	9			
...	...	...	10	0	11	7	9	2	160	0	160	0	160	0	9	2	9	2	9	0	3	12	0	4	0	4	0	4	0	0	Khulna.	10		
...	...	...	20	0	20	0	16	0	120	0	120	0	120	0	9	14	9	14	9	12	3	10	0	3	10	0	3	10	0	Jessore.	11			
...	...	...	18	0	18	0	17	0	200	0	200	0	200	0	10	8	10	8	10	8	3	7	0	3	7	0	3	7	0	Murshidabad.	12			
...	...	...	...	...	...	...	...	...	80	0	80	0	110	0	9	8	9	0	9	0	3	13	0	3	14	0	3	13	0	Chittagong.	13			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	9	0	9	0	9	0	4	2	0	4	2	0	4	0	4	0	0	Nagkhali.	14		
...	...	...	7	6	7	8	7	10	...	...	...	...	...	10	4	10	0	10	0	3	14	0	4	0	4	0	4	0	0	0	Tipperra.	15		
No. in cobs. 300	...	...	...	...	...	...	...	...	240	0	240	0	240	0	8	0	8	0	8	0	5	0	0	4	8	0	4	12	0	Chittagong Hill Tracts.	16			
...	...	...	16	0	23	0	16	0	120	0	120	0	120	0	10	0	10	0	10	0	3	11	0	3	11	0	3	11	0	Dacca.	17			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	10	4	10	4	10	0	3	14	0	3	14	0	3	14	0	0	0	Faridpur.	18		
10	0	Mug. 10	0	10	0	8	0	Musuri. 7	8	8	0	80	0	80	0	80	0	10	8	10	0	10	10	3	12	0	3	12	0	3	10	0	Backergunge.	19
...	...	...	13	0	13	0	13	0	120	0	120	0	120	0	10	0	10	0	10	0	4	0	0	4	0	0	3	15	0	Mymensingh.	20			
...	...	...	...	...	...	...	...	...	160	0	160	0	160	0	10	0	10	0	10	4	4	0	0	4	0	0	3	14	0	Dinajpur.	21			
...	...	...	21	0	20	12	17	0	240	0	240	0	240	0	9	9	9	9	9	9	3	10	8	3	10	8	3	10	8	Rajahm.	22			
...	...	...	11	3	10	0	9	0	70	0	70	0	80	0	12	0	10	0	10	0	3	5	4	4	0	0	4	0	0	Rangpur.	23			

K In the subdivisions the retail prices of salt per rupee are :—Jangipur 10 seers and Kandi 10 seers 9 chitaks.

L At Cox's Bazar the retail price of salt is 8 seers per rupee.

M At Fenny Hat the retail price of salt is 8 seers per rupee.

N In the subdivisions the retail prices of salt per rupee are :—Brahmanbaria 9 seers 2 chitaks and Chandpur 9 seers.

O Retail prices of salt in the marts in the interior of the district are :—Madanganj 10 seers, Manikganj 9 seers 13 chitaks, Mirkadim 10 seers, and Munshirhat 10 seers.

P In the Madaripur and Goalundo subdivisions the retail price of salt is 10 seers per rupee.

Q In the subdivisions the retail prices of salt per rupee are :—Pirojpur 10 seers, Patuakhali 9 seers.

R In the subdivisions the retail prices of salt per rupee are :—Jamaipur 9 seers, Kishorganj 8 seers, Kagmari 10 seers, and Netrakona 10 seers.

S In the subdivisions the retail prices of salt per rupee are :—Nator 9 seers and Naugon 9 seers 9 chitaks.

T In the subdivisions the retail prices of salt per rupee are :—Kuriganj 8 seers, Gaikanda 10 seers, and Nildhamad 10 seers.

## PRICES-CURRENT (retail) of Food-grains, Firewood, and Salt in the Head-quarters

Number.	DISTRICTS.	QUANTITIES PER RUPEE IN															
		WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU (Sorghum Vulgare).			
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
BENGAL—continued.																	
RAJSHAH DIVISION—contd.	23 Bogra	13 5	13 8	11 4	...	...	...	7 8	9 0	9 0	9 12	11 4	11 4	...	...	...	
	24 Pabna	16 8	17 4	13 8	24 0	24 0	...	6 0	6 0	6 14	9 12	11 12	12 6	...	...	...	
	25 Darjeeling	8 0	8 0	8 0	10 0	10 0	9 0	5 0	5 0	5 0	10 0	10 0	10 0	...	...	...	
	26 Jalpaiguri	13 0	12 0	11 0	12 0	14 0	14 0	8 0	8 0	6 0	12 0	11 0	10 8	...	...	...	
BIHAR.																	
BHAGALPUR DIVISION.	27 Monghyr	15 8	15 12	13 8	21 0	21 0	14 0 { 8 0 to 10 0 }	10 8	9 0	11 8	11 8	11 8	...	...	...		
	28 Bhagalpur	15 2	15 2	13 14	21 7	20 3	15 2	10 11	10 1	13 4	13 14	11 6	...	...	...		
	29 Purnea (Kasba)	16 0	16 0	11 0	...	...	...	11 0	11 0	10 0	14 0	14 0	16 0	...	...	...	
	30 Malda (English Bazar).	15 0	14 0	12 0	...	...	...	10 0	10 0	10 0	13 0	16 0	14 0	...	...	...	
	31 Sonthal Parganas.	11 8	11 8	11 0	...	...	...	11 0	11 0	10 8	14 0	14 0	13 0	...	...	...	
PATNA DIVISION.	32 Patna	19 0 { 18 0 Red. to 16 0 White. }	18 0	16 0 { 25 0 to 23 0 }	25 0	21 0	10 8	10 0	10 0	15 0	14 0	14 0	23 0 { to 24 0 }	22 0	22 0	0	
	33 Gaya	14 0	14 0	12 8	20 0	20 0	16 8	9 8	9 8	9 0	13 0	13 0	12 8	17 8	17 12	16 4	
	34 Shahabad*	...	14 0	13 8	...	20 0	16 0	...	8 0	8 0	...	11 8	11 0	...	...	...	
	35 Darbhanga	13 3	13 2	12 10	20 12	20 12	13 3	12 0	12 2	11 0	14 0	14 3	13 12	...	...	...	
	36 Muzaffarpur	15 0	14 8	13 0	22 0	22 0	18 0	8 0	8 0	8 0	12 12	13 0	12 8	...	...	...	
	37 Saran	16 12	16 0	14 0	25 0	23 4	21 0	9 8	10 9	8 8	13 0	13 0	11 10	...	...	...	
	38 Champaran	13 8	14 12	13 0	22 0	23 4	17 4	8 8	8 4	9 0	15 8	14 4	13 0	...	...	...	
ORISSA.																	
ORISSA DIVISION.	39 Cuttack	12 7	11 13	8 8	...	...	...	11 0	10 8	7 14	14 7	13 2	11 2	...	...	...	
	40 Puri	9 8	9 8	9 3	...	...	...	8 0	8 0	7 8	13 0	13 0	11 13	...	...	...	
	41 Balasore	11 0	11 0	11 0	10 0	10 0	10 0	10 0	10 0	10 0	16 0	18 0	14 0	...	...	...	
CHOTA NAGPUR.																	
CHOTA NAGPUR DIVISION.	42 Hazaribagh	12 4 { 12 0 to 12 8 Red. }	12 8	11 0	16 0	16 0	14 0	8 0	8 0	8 0	12 12	12 4	12 8	...	...	...	
	43 Lohardaga	10 8 { 7 0 to 9 0 White. }	7 8 to 9 0	9 0 to 7 0	13 0	12 8	11 0 { 11 0 to 12 0 }	11 0 { 11 0 to 12 0 }	12 0	13 0 { 14 0 to 15 4 }	13 0 { 14 0 to 15 4 }	11 0 { 15 4 }	...	...	...		
	44 Palamau	12 6	12 15	11 13	21 15	23 10	...	13 8	11 18	10 15	14 1	12 6	14 1	...	...	...	
	45 Singhbhum	12 0	13 0	13 0	...	...	...	10 0	8 0	12 0	12 0	12 0	15 0	...	...	...	
	46 Manbhum	13 0	13 0	11 8	...	...	...	8 0 { 8 8 to 9 0 }	8 0 { 8 8 to 9 0 }	13 0 { 12 0 to 12 0 }	10 0 { 10 0 to 10 0 }	10 0 { 10 0 to 10 0 }	15 0	...	...	...	

\* Present return not received.

U At Sirajganj the retail price of salt is 10½ seers per rupee.

V At Alipur the retail price of salt is 8 seers per rupee.

W In the Begusarai and Jamal subdivisions the retail price of salt is 10 seers per rupee.

X In the Hanka, Madhipura and Supaul subdivisions the retail price of salt is 10 seers per rupee.

Y In the Kishanganj and Araria subdivisions the retail price of salt is 10 seers per rupee.

Z In the subdivisions the retail prices of salt per rupee are :—Godda 9 seers, Jamtara 9 seers, Fakur 10½ seers, Rajmahal 10 seers.

a In the subdivisions the retail prices of salt per rupee are :—Barh 11 seers, Bihar 10 seers, and Dinapore 9½ seers.

b In the subdivisions the retail prices of salt per rupee are :—Jahanabad 10 seers, Aurangabad 10 seers, and Nawada 9 seers.

CALCUTTA,

The 6th September, 1893.

**BERS OF 80 TOLAH.**

BAJRA OR CUMBU. ( <i>Pennisetum typhoides</i> .)			MARUA OR RAGI. ( <i>Eriosema Cynorhiza</i> .)		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.

[illegible]

WHOLESALE PRICES PER MAUND OF 40 SEERS.												DISTRICTS.	Number.
FIREWOOD.			SALT.			SALT.							
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.					
Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	BENGAL—continued.				
90 0	90 0	90 0	9 9	9 12	9 9	4 0 0	3 13	4 3 14 0	Bogra.	23	RAJSHAHI DIVISION —contd.		
200 0	200 0	200 0	10 8	9 12	9 12	3 10 6	3 10 6	3 11 0	Pabna.	24			
120 0	120 0	120 0	8 0	8 0	8 0	4 10 0	4 12 0	4 10 0	Darjeeling.	25			
160 0	120 0	200 0	10 0	9 8	9 8	3 15 0	3 15 0	4 0 0	Jalpaiguri.	26			
160 0	120 0	160 0	11 10	10 8	10 8	3 12 0	3 12 0	3 12 0	Monghyr.	27	BHAGALPUR DIVISION.		
151 8	126 4	164 0	10 8	10 11	10 11	3 0 0	3 10 0	3 12 0	Bhagalpur.	28			
320 0	320 0	320 0	10 0	11 0	11 0	3 10 0	3 10 0	3 6 0	Purnea.	29			
160 0	160 0	120 0	10 0	10 0	10 0	4 0 0	4 0 0	3 12 0	Malda.	30			
140 0	120 0	200 0	10 0	10 0	10 0	3 13 0	3 14 0	3 10 3	Southal Parganas.	31			
130 0	130 0	130 0	11 4	11 0	11 8	3 10 0	3 12 0	3 8 0	Patna.	32	PATNA DIVISION.		
160 0	160 0	200 0	10 0	10 0	10 0	3 13 0	3 13 0	3 13 0	Gaya.	33			
120 0	110 0	10 0	10 8	11 0	11 0	3 13 0	3 10 0	3 10 0	Shahabad.	34			
176 0	176 0	178 0	10 4	10 4	9 12	3 14 6	3 14 6	3 12 0	Darbhanga.	35			
160 0	160 0	160 0	11 0	11 0	10 8	3 10 0	3 10 0	3 11 0	Muzaffarpur.	36			
180 0	180 0	100 0	10 8	10 8	10 8	3 12 0	3 12 0	3 12 0	Saran.	37			
180 0	180 0	160 0	10 10	11 0	10 8	3 11 0	3 9 0	3 10 0	Champaran.	38			
80 0	80 0	80 0	11 0	11 0	11 0	3 8 0	3 8 0	3 12 0	Cuttack.	39	ORISSA DIVISION.		
80 0	80 0	80 0	12 0	10 0	10 0	3 6 0	3 6 0	3 9 0	Puri.	40			
130 0	160 0	160 0	11 0	11 0	11 0	3 9 0	3 9 0	3 10 0	Balasore.	41			
240 0	240 0	240 0	9 0	8 0	8 0	4 4 6	4 8 0	4 4 0	Hazaribagh.	42	CHOTA NAGPUR DIVISION.		
140 0	140 0	140 0	8 4	8 4	9 0	4 12 0	4 11 0	4 5 0	Lohardaga.	43			
100 0	100 0	120 0	9 0	9 0	9 0	4 6 0	4 6 0	4 6 0	Singbhum.	45			
100 0	100 0	120 0	10 10	10 10	10 10	3 11 0	3 11 0	3 10 0	Manbhum.	46			

is of salt per rupee are:—Madhubani 11 seers and Samastipur 10 seers.  
 25 of salt per rupee are:—Jajpur 10½ seers and Sitamarhi 10 seers.  
 25 of salt per rupee are:—Siwan 10 seers 10 chitaks and Gopalganj (Mirganj) 11 seers 13 chitaks.  
 is 10 seers per rupee.  
 is of salt per rupee are:—Jajpur 9 seers, Kenilpura 9 seers, and Banki 11½ seers.  
 is 9 seers per rupee.  
 is 11 seers per rupee.

At Goompur the retail price of salt is 11 seers per rupee.

**Published for general information.**

M. FINUCANE,  
*Offg. Secretary to the Govt. of Bengal.*

PRICES-CURRENT (wholesale) of Food-grains, Firewood, and Salt

Number.	MARTS.	WHEAT.			BARLEY.			RICE, BEST SORT.			RICE COMMON.		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
		R. A. P.	P. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
1	Calcutta ...	3 3 3	3 2 0	3 6 0	2 5 6	2 5 0	2 7 0	5 8 0	5 5 0	4 12 0	4 1 6	4 1 0	3 8 3
2	Sirajganj ...	2 7 0	2 7 0	3 4 0	...	...	...	6 6 0	5 14 0	5 12 0	4 8 0	4 0 0	3 8 0
3	Dacca ...	3 8 0	3 8 0	3 12 0	...	...	...	5 12 0	4 10 0	4 4 0	5 0 0	4 0 0	3 12 0
4	Narayanganj ...	...	...	...	...	...	...	5 8 0	4 10 0	3 8 0	5 0 0	4 0 0	3 2 0
5	Chittagong ...	4 0 0	4 0 0	4 0 0	...	...	...	4 8 0	4 5 6	5 8 0	3 14 0	3 13 0	4 2 0
6	Patna ...	2 1 6	Red. 2 3 3	2 8 0	1 9 6	1 9 0	1 14 6	3 13 0	4 0 0	4 0 0	2 10 6	2 13 0	2 13 6
		2 3 6	White. 2 8 0	2 10 6									
7	Balasore ...	3 12 0	3 12 0	3 0	4 0 0	3 12 0	3 12 0	4 0 0	4 0	3 12 0	2 8 0	3 1 0	2 14 0
8	Puri ...	4 3 0	4	4 0	...	...	...	5 0 0	5 0 0	5 5 0	3 0 0	3 0 0	3 2 0
9	Cuttack ...	3 2 0	3 4 0	4 12 0	...	...	...	3 8 0	3 10 0	5 0 0	2 12 0	3 0 0	3 9 0

CALCUTTA,  
The 5th September, 1893.

Legal on the 31st August, 1893.

PRICES PER MAUND								
JOWAR OR CHOLU. ( <i>Sorghum Vulgare</i> .)			BAJRA OR CUMBU. ( <i>Pennisetum typhodesum</i> .)					
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.			
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.			
2 16 2	1 02 6	0	...	...	...			
...	...	...	...	...	...			
...	...	...	...	...	...			
...	...	...	...	...	...			
...	...	...	...	...	...			
1 12 0	1 13 0	1 13 0	...	...	...			
...	...	...	...	...	...			
...	...	...	...	...	...			
...	...	...	...	...	...			

1650a

No.	ARHAR OR THUR, CADJAN PEA. ( <i>Cajanus indicus</i> .)			FIREWOOD.			SALT.			MARTS.
	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
of last year.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	
6 0	2 2 6	2 2 0	2 6 0	0 7 0	0 7 0	0 6 0	3 9 0	3 10 0	3 4 0	Calcutta.
..	...	...	...	0 6 6	0 6 6	0 8 0	3 9 0	3 9 0	3 7 0	Sirajganj.
..	2 8 0	2 0 0	2 8 0	0 5 0	0 5 0	0 5 0	3 11 0	3 11 0	3 11 0	Dacca.
...	3 0 0	3 0 0	4 2 0	0 6 0	0 6 0	0 8 0	3 10 0	3 10 0	3 8 0	Narayanganj.
...	...	...	...	0 8 0	0 8 0	0 5 0	3 13 0	3 14 0	3 13 0	Chittagong.
5 0	1 10 9	1 9 0	1 11 6	0 5 0	0 5 0	0 5 0	3 10 0	3 12 0	3 8 0	Patna.
...	3 12 0	3 10 0	3 10 0	...	...	...	3 9 0	3 9 0	3 10 0	Balasore.
...	2 10 0	2 10 0	2 14 0	0 8 0	0 8 0	0 8 0	3 6 0	3 6 0	3 9 0	Puri.
...	2 0 0	2 0 0	2 8 0	0 8 0	0 8 0	0 8 0	3 8 0	3 8 0	3 12 0	Cuttack.

Published for general information.

M. FINUCANE,  
Offg. Secretary to the Govt. of Bengal.

## Meteorological Report of the Province of Bengal

			STATION OBSERVATIONS.											
METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	AIR PRESSURE.			WIND.		TEMPERATURE.						
			Mean barometric height, 5 A. M. reduced to 32°.	Mean reduced to sea-level and constant gravity, lat. 40°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.
ORISSA	Puri	Puri	29.597	29.552	—	Calm	202	91.7	30th Aug.	71.1	30th Aug.	86.9	78.2	83.6
		Gopalpore	29.013	29.574	—0.87	SWly	230	89.7	30th "	75.3	2nd Sept.	87.9	77.7	82.8
		False Point	29.600	29.563	—1.02	Variable	210	90.0	31st "	77.6	23th Aug.	87.3	79.3	83.3
	Cuttack	Cuttack	29.531	29.553	—0.60	Calm	104	93.2	31st "	77.0	24th, 1st & 2nd Sept.	89.1	79.0	83.8
	Balasore	Balasore	29.567	29.580	—0.81	NE	53	90.4	1st Sept.	77.7	27, 28 Aug.	89.0	79.0	84.0
SOUTH-WEST BENGAL.	Midnapore	Midnapore	29.501	29.596	—0.67	NE	89	92.3	31st Aug. & 1st Sept.	79.0	27 to 30th, 1st & 2nd Sept.	90.2	79.1	84.7
	24-Pargannas	Calcutta	29.628	29.504	—0.61	E	89	90.1	31st Aug. & 1st Sept.	77.7	29th Aug.	87.9	78.8	83.4
		Sankor Island	29.013	29.582	—0.79	Variable	285	91.7	1st "	79.0	27th "	90.2	80.4	85.3
	Howrah	Howrah	29.613	29.608	—0.42	ESE	105	92.3	1st Sept.	79.3	29-31 "	90.5	79.5	85.0
	Nadia	Krishnagar	29.613	29.608	—0.42	ESE	105	92.3	1st Sept.	79.3	29-31 "	90.5	79.5	85.0
NORTH BENGAL.	Khulna	Jessore	29.636	29.616	—0.56	SSE	104	91.5	31st Aug.	78.9	31st Sept.	90.1	79.7	85.0
	Burdwan	Burdwan	29.566	29.610	—0.45	SEly	44	92.1	1st Sept.	79.2	29th Aug.	90.7	80.2	85.5
		Raniganj	29.533	29.618	—0.35	Variable	65	95.7	2nd "	76.8	29th "	85.3	78.1	85.7
	Bankura	Bankura	29.334	29.582	—0.58	Calm	71	91.6	1st "	78.0	2nd Sept.	89.8	78.9	84.4
	Birbhum	Berhampore	29.603	29.619	—0.45	E	43	92.7	2nd "	79.3	29th Aug.	90.1	80.7	85.4
EAST BENGAL.	Pabna	Sirajganj	29.634	29.630	—0.59	SE	124	92.1	2nd "	77.2	2nd Sept.	87.5	80.1	83.8
	Bogra	Bogra	29.616	29.629	—0.14	SE	61	93.2	2nd "	76.2	30th Aug.	89.3	77.7	83.5
	Rajshahi	Rampur Bonga	29.604	29.622	—0.20	SE	86	93.1	2nd "	74.6	2nd Sept.	89.5	78.5	84.0
	Malda	Malda	29.589	29.620	—	SE & Calm.	69	93.0	2nd "	80.0	29th Aug.	90.8	80.6	85.8
	Dinajpur	Dinajpur	29.565	29.639	—0.27	SE	32	93.6	2nd "	78.7	30th "	90.1	80.1	85.1
NORTH BENGAL.	Rangpur	Rangpur	29.565	29.644	—0.36	SSE	23	92.8	2nd "	78.7	29. 30 "	89.9	79.6	84.8
	Jalpaiguri	Jalpaiguri	29.423	29.640	—0.60	Variable	42	92.9	2nd "	76.6	28, 29 "	90.1	77.1	83.6
	Kuch Bihar	Darjeeling	22.945	—	—0.05	Variable	67	97.1	28th & 1st "	55.6	1st Sept.	65.4	57.0	61.2
	Darjeeling	Ghatong	10.054	—	—	Variable	58	57.9	30th "	51.1	2nd "	55.3	57.5	56.4
	Bikkim	Chittagong	29.626	29.650	—0.08	ESE	94	89.7	1st "	7.61	29th & 2nd Sept.	87.8	77.1	82.2
EAST BENGAL.	Chittagong	Chittagong	29.626	29.650	—0.08	ESE	94	89.7	1st "	7.61	29th & 2nd Sept.	87.8	77.1	82.2
	Chittagong Hill Tracts	Domaguri	—	—	—	—	—	Observations not received.						
	Hackergunge	Barisal	29.656	29.614	—0.59	Calm	87	90.8	1st Sept.	?	?	89.3	?	?
	Noakhali	Noakhali	29.638	29.638	—0.06	SE & E	148	88.5	1st, 2nd "	76.8	1st Sept.	86.9	77.4	82.2
	Faridpur	Faridpur	29.655	29.640	—0.50	Calm	64	89.0	2nd "	79.4	30th Aug.	88.0	80.9	84.5
NORTH BENGAL.	Dacca	Dacca	29.651	29.621	—0.71	S	157	91.1	2nd "	79.2	2nd Sept.	89.5	81.2	85.4
	Tippera	Comilla	29.661	29.644	—0.69	E	118	91.8	2nd "	70.7	2nd "	80.8	77.4	83.8
	Mymensingh	Mymensingh	29.704	29.642	—0.69	ESE	89	91.7	2nd "	78.0	28, 29 Aug.	88.5	79.6	84.1
	Purnea	Purnea	29.550	29.627	—0.31	Variable	31	94.2	2nd "	78.2	25th "	91.3	81.3	86.3
	Bhagalpur	Bhagalpur	29.494	29.610	—0.32	Calm	32	92.7	2nd "	76.5	28th "	90.6	79.9	86.2
SOUTH BENGAL.	Darbhanga	Darbhanga	29.508	29.626	—0.89	Variable	80	91.0	1st, 2nd "	78.2	29th "	89.5	80.3	85.0
	Muzaffarpur	Muzaffarpur	29.405	29.590	—	ESE	103	91.2	1st, 2nd "	77.2	1st Sept.	89.7	80.3	85.1
	Champaran	Motihari	29.430	29.616	—0.25	ESE	80	93.2	30th Aug.	76.9	1st "	91.1	78.5	84.8
	Saran	Chupra	29.485	29.616	—0.08	Variable	111	92.8	29th Aug. & 1st Sept.	79.1	1st "	91.7	80.2	86.0
	Shahabad	Behr	29.280	29.580	—0.61	E	207	93.8	1st "	75.0	2nd "	91.9	80.2	86.1
CHOTA NAGPUR.	Shahabad	Buxar	29.414	29.607	—0.33	E	146	92.5	31st Aug.	78.7	2nd "	91.5	80.1	85.8
	Gaya	Arrah	29.432	29.692	—0.81	Variable	33	93.9	1st Sept.	80.3	27th Aug.	92.5	81.5	87.0
		Gaya	Gaya	29.276	29.600	—0.36	E	126	93.4	27, 29 Aug.	76.8	23th "	92.6	80.2	86.4
	Patna	Bankipore	29.471	29.603	—0.46	E	134	92.0	2nd Sept.	78.7	31st "	90.9	81.2	86.1
	Monghyr	—	—	—	—	—	—	—	—	—	—	—	—	—
ASSAM.	Sonthal Parganas	Naya Dumka	29.167	29.600	—0.35	E	110	92.6	2nd "	76.7	29th Aug.	90.3	78.3	84.4
	Hazaribagh	Hazaribagh	27.671	29.006	—0.32	Variable	175	88.2	1st "	71.8	27th "	86.5	75.4	80.0
	Lohardaga	Ranchi	27.538	29.593	—0.44	Calm	147	88.5	28th Aug.	71.4	28th "	84.7	72.8	78.8
	Singbhum	Chaibassa	27.806	29.567	—0.58	Calm	13	91.4	1st Sept.	76.7	2nd Sept.	89.1	77.6	83.4
	Manbhum	—	—	—	—	—	—	—	—	—	—	—	—	—
ASSAM.	Sibsagar	Sibsagar	29.410	29.607	—0.27	SW	—	92.6	27th Aug.	76.5	28, 30 & 31 Aug.	87.8	78.0	82.9
	Goalpara	Dhubri	29.578	29.646	—0.42	Variable	89	90.2	1st Sept.	79.3	31st "	88.2	80.1	84.2
	Cachar	Suchar	29.614	29.600	—0.60	Calm	—	96.1	2nd "	75.8	27th "	91.4	77.7	84.6

\* Mean of 6 days.

*Explanation.—Summary.*—The normal means of air pressure and temperature are the arithmetical average or means of the reading during the same period. The humidity of the atmosphere is expressed as percentage, saturated air being presented by 100. A clear sky is denoted by 0 and an overcast sky by 101. The rainfall the normal mean are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional station district, i.e. from total rainfall at the subdivisional stations in the district reading in returns divided by the number of stations. A rainy day is one of



for the week ending Saturday, the 2nd of September 1893.

DISTRICT OBSERVATIONS.															DISTRICT.
					OF WEEK.				RAINFALL.						
Variation from normal mean.	Mean 8 A.M. temperature.	Average humidity at 8 A.M.	Average cloud amount at 8 A.M.	Rainfall of week at observing station.	Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Since 1st of month.			Since 16th May 1893.			
									Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.	
—	82.1	88	7.1	0.13		2.37		3.30		0.80			34.30		Puri.
—0.6	81.5	86	4.4	3.51											
+1.0	82.9	86	7.8	4.19											
—0.4	83.4	80	5.4	3.23		1.99		2.37		0.54			35.20		Cuttaok.
+1.6	83.6	92	4.1	3.29		1.68		2.67		0.59			35.76		
+1.9	82.9	88	4.3	0.83	1.29	2.51	3.00	2.92	0.45	0.53	—0.08	50.86	39.01	+11.85	
+0.7	83.1	86	8.4	3.11	1.41	2.05	2.86	3.23	0.36	0.55	—0.19	49.72	39.55	+10.17	Midnapore.
+1.9	83.0	90	0.1	1.66											
					0.37	2.26	1.56	3.66	Nil	0.51	—0.51	47.60	38.22	+9.38	
					0.40	1.92	2.07	3.18	0.10	0.46	—0.36	46.87	38.11	+8.76	Howrah.
+1.6	84.1	83	7.6	0.42	0.47	2.10	1.80	3.11	0.13	0.57	—0.44	46.71	35.77	+9.94	
					0.97	1.85	2.37	3.61	0.10	0.56	—0.46	56.40	41.63	+14.73	
+1.0	83.7	88	7.4	0.88	0.67	1.68	2.20	2.67	0.21	0.55	—0.34	49.94	37.24	+3.70	Khulna.
+1.3	83.3	84	7.3	0.32	0.34	2.13	1.00	3.04	0.15	0.60	—0.45	42.33	35.30	+7.03	
+2.6	82.0	90	3.1	0.35											
+1.7	81.8	80	7.3	1.25	1.31	2.06	2.50	3.35	0.46	0.83	—0.37	48.40	40.00	+8.40	Bankura.
+1.9	82.8	92	9.0	1.50	1.06	2.50	2.33	3.06	0.67	0.83	—0.16	40.21	38.70	+1.51	
+1.3	83.8	92	8.0	1.08	0.68	2.40	2.50	3.38	0.35	0.74	—0.39	59.12	37.77	+21.35	
+0.7	81.8	90	4.9	2.67	1.08	2.92	3.25	3.15	0.12	0.81	—0.69	40.02	41.90	+7.03	Bogra.
+1.4	83.3	86	5.3	1.53	2.20	2.81	4.00	3.51	0.68	0.87	—0.19	52.14	37.84	+14.30	
—	83.8	80	5.6	1.37	1.28	2.85	3.00	3.21	0.52	0.85	—0.33	40.20	38.78	+1.51	
+1.8	82.7	80	6.1	0.78	1.24	2.05	2.20	3.56	0.22	0.73	—0.51	50.83	41.04	+8.79	Dinajpur.
+1.9	83.5	80	4.1	1.20	1.10	3.21	1.30	3.00	0.45	0.77	—0.32	63.73	55.19	+8.54	
+1.7	80.6	88	7.1	2.02	3.36	5.62	4.00	3.80	Nil	1.97	—1.97	91.41	88.45	+2.96	
+0.3	68.3	95	9.1	2.37	8.20	4.88	5.25	4.43	0.21	1.08	—0.87	103.97	98.08	+5.89	Darjeeling.
—	48.6	88	8.0	7.37											
+1.7	82.1	86	5.7	2.08	2.65	3.02	4.00	3.88	0.08	0.93	+0.03	119.23	89.00	+30.23	
					3.44	2.85	4.00	4.60	0.59	0.69	—0.10	81.87	61.25	+20.62	Chittagong.
															Chittagong Hill Tracts.
															Backergunge.
															Noakhali.
+1.1	81.9	91	3.6	4.88	3.64	3.79	5.00	4.51	0.99	1.38	—0.39	99.05	80.67	+18.38	Faridpur.
+2.0	83.5	85	7.1	1.02	0.41	2.09	2.33	3.20	0.22	0.65	—0.43	52.84	41.11	+11.73	
+2.1	84.0	84	7.9	0.34	0.81	2.30	2.00	3.53	0.37	0.82	—0.45	53.81	44.82	+8.99	
+2.2	81.2	92	6.0	1.63	1.61	2.66	2.50	3.83	0.56	0.98	—0.42	60.37	51.04	+9.33	Tippura.
+1.6	82.2	89	7.4	1.17	2.11	3.31	3.00	3.84	0.43	0.90	—0.47	74.23	50.35	+23.88	
+3.1	84.3	86	4.3	0.80	0.78	3.33	2.67	3.69	0.07	1.10	—1.03	56.01	47.05	+8.96	
+1.8	84.8	85	6.7	—	0.10	2.41	0.59	3.23	Nil	0.64	—0.64	34.98	32.77	+2.21	Bhagalpur.
+1.6	82.5	89	6.4	1.01	0.55	2.98	1.00	3.14	0.02	0.86	—0.84		33.08		
—	83.5	89	5.3	2.92	0.81	2.50	1.00	2.88	0.53	0.99	—0.46	33.43	30.91	+2.57	
+1.8	83.0	87	6.0	0.35		2.87		2.96		1.01			33.77		Champaran.
+2.5	84.7	83	9.3	—	1.02	2.82	1.00	3.07	0.25	0.77	—0.52	28.77	30.30	—1.53	
+3.2	84.8	83	1.4	2.57											
+2.6	84.2	84	6.4	—	0.94	2.19	1.00	2.57	0.92	0.54	+0.23		29.18		Shahabad.
+3.3	85.1	86	2.0	—											
+2.8	84.3	87	4.7	0.02	0.10	3.06	0.50	2.55	0.06	0.53			31.16		
+2.1	85.7	85	7.9	0.63		2.22		2.61		0.66			30.43		Gaya.
					Nil	2.17	Nil	3.23	Nil	0.65	—0.65	35.71	31.78	+3.93	
+3.4	83.7	84	4.3	0.65	0.31	2.44	0.67	3.27	0.09	0.79	—0.70	44.88	30.61	+8.27	
+2.1	77.8	88	10.0	0.24		2.38		3.64		0.52			37.76		Sonthal Parganas.
+1.4	76.8	93	6.7	1.03		2.54		3.52		0.82			38.70		
						2.31		3.00		0.67			31.66		
+1.0	80.8	87	8.9	1.77	1.77	2.28	4.00	3.25	0.40	0.81	—0.41	44.02	39.42	+4.60	Singbhum.
					1.12	2.12	2.50	3.35	0.46	0.68	—0.12	52.33	35.27	+17.06	
—0.3	80.6	97	9.0	5.03											
+1.8	82.2	89	7.4	0.93											Manbhum.
+3.3	81.5	88	9.1	0.32											

for the last ten years. The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater. The numbers denoting cloud amount represents the part of the sky covered the whole sky being denoted by 10. Under the head District observations of for the period in question during the past ten years. The means of the district are the numerical average of the rainfall returned received in the which at least a tenth of an inch fell.





Statement of Rainfall in Bengal for the week ending Saturday (8 a.m.), the 2nd of September 1893—concl'd.

Meteorological Division.	District.	Station.	RAINFALL.							Total number of rainy days.	Rainfall of week.	Average rainfall of week.	Total rainfall since 1st of month.	Average total rainfall from 1st of month.	Total rainfall since 10th May 1893.	Average rainfall from 10th May to date.
			Sunday, 27th August.	Monday, 28th August.	Tuesday, 29th August.	Wednesday, 30th August.	Thursday, 31st August.	Friday, 1st.	Saturday, 2nd.							
NORTH BIRAR—concluded.	Muzaffarpur...	Sitamari ...	...	0.03	...	...	0.67	...	...	1	0.70	2.13	Nil	0.73	42.08	30.28
		Muzaffarpur ...	0.03	...	...	...	0.10	1.00	...	1	1.03	2.01	1.60	1.10	30.46	31.88
		Hajipur ...	...	...	...	...	0.10	...	...	1	0.10	2.41	Nil	1.14	27.92	30.60
		Para ...	...	...	...	0.25	0.25	...	0.85	3	1.35	...	0.85	...	...	...
		Mahua (Chilwara) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Siuhar ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Papri ...	...	...	...	...	0.13	0.08	0.02	1	0.23	2.47	0.10	0.60	55.55	31.98
		Champan ...	...	...	...	...	...	...	...	Nil	Nil	...	...	...	...	...
		Meitihari ...	...	...	...	...	...	0.05	...	Nil	0.05	...	0.05	...	24.91	34.13
		Ratish ...	...	...	...	...	...	0.41	...	1	0.41	2.30	0.41	1.14	34.13	37.82
SOUTH BIRAR	Suran ...	Ragaha ...	...	...	...	...	...	...	...	1	0.41	2.30	0.41	0.77	27.39	30.72
		Rurkurwa ...	...	...	...	...	...	...	...	2	2.66	...	0.33	...	...	...
		Gopalganj ...	...	...	...	...	2.43	...	0.33	Nil	Nil	2.31	Nil	0.41	24.88	20.37
		Siwan ...	...	...	...	...	...	...	...	Nil	Nil	...	...	...	...	...
		Ekma ...	...	...	...	...	...	...	...	Nil	Nil	...	0.40	...	...	...
		Chapra ...	...	...	...	...	...	0.40	...	1	0.40	...	...	...	...	...
		Sreepore ...	...	...	...	...	0.25	...	...	1	0.25	...	...	...	...	...
		Amnar ...	...	...	...	...	0.51	...	...	Nil	Nil	2.11	Nil	0.61	24.30	27.11
		Basantpur ...	...	...	...	...	...	...	...	1	2.37	3.03	2.17	0.25	28.92	30.30
		Buxar ...	...	...	...	...	...	0.61	0.20	2	0.81	1.43	0.21	0.51	35.85	30.03
CHOTA NAU-PUR.	Shahabad ...	Dehri ...	...	...	...	...	...	0.44	...	1	0.44	2.01	0.44	0.30	29.17	29.41
		Bhabhua ...	...	...	...	...	...	...	...	1	0.80	2.33	0.80	0.98	...	...
		Sasaram ...	...	...	...	...	...	...	...	1	0.30	...	0.30	...	...	...
		Arrah ...	...	...	...	...	...	...	...	Nil	Nil	...	...	...	...	...
		Mohanea ...	...	...	...	...	...	...	...	1	0.20	...	0.20	...	...	...
		Khiri ...	...	...	...	...	...	...	0.20	...	...	...	...	...	...	...
		Agaoon ...	...	...	...	...	...	...	...	Nil	Nil	...	...	...	27.00	...
		Ramagar ...	...	...	...	...	...	...	...	Nil	Nil	...	...	...	...	...
		Kouth ...	...	...	...	...	...	...	...	Nil	Nil	...	...	...	...	...
		Sikrol ...	...	...	...	...	...	...	...	Nil	Nil	...	...	...	...	...
CHOTA NAU-PUR.	Bansowan ...	Monaharpur ...	...	...	...	...	...	...	...	Nil	Nil	...	...	...	...	...
		Gaya ...	...	...	...	...	0.00	...	0.18	1	0.27	1.91	0.18	0.57	25.48	32.08
		Aurangabad ...	...	...	...	...	...	...	0.02	Nil	0.02	2.28	0.02	0.51	28.56	32.17
		Nawadah ...	...	...	...	...	...	0.10	...	1	0.10	1.55	0.10	0.30	29.53	30.53
		Jahanabad ...	...	...	...	...	...	...	...	Nil	Nil	...	...	...	...	...
		Arwal ...	...	...	...	...	...	...	2.14	1	2.14	...	2.14	...	28.05	...
		Danapur ...	...	...	...	...	...	...	...	1	0.31	...	0.31	...	...	...
		Sharghati ...	...	...	...	...	...	...	...	Nil	Nil	...	...	...	...	...
		Rajauli ...	...	...	...	...	...	...	...	1	0.63	2.80	Nil	0.03	33.65	31.14
		Pakri Barawan ...	...	...	...	...	0.03	...	...	Nil	Nil	2.60	Nil	0.76	34.61	30.85
CHOTA NAU-PUR.	Patna ...	Patna ...	...	...	...	...	...	...	...	Nil	Nil	1.88	Nil	0.40	31.26	28.34
		Imnapore ...	...	...	...	...	...	...	...	Nil	Nil	1.68	Nil	0.51	37.82	...
		Bihar ...	...	...	...	...	...	...	0.07	Nil	0.07	...	0.07	...	36.86	...
		Barh ...	...	...	...	...	1.5	...	...	1	1.5	...	...	...	...	...
		Biokram ...	...	...	...	...	...	...	...	Nil	Nil	...	...	...	...	...
		Hile ...	...	...	...	...	...	...	...	Nil	Nil	1.07	Nil	0.73	41.72	29.32
		Begusarai ...	...	...	...	...	...	...	...	Nil	Nil	3.07	Nil	0.88	53.90	53.67
		Monahyr ...	...	...	...	...	...	...	...	Nil	Nil	1.46	Nil	0.25	29.42	33.16
		Jamul ...	...	...	...	...	...	...	...	Nil	Nil	...	...	...	...	...
		Gopri ...	...	...	...	...	...	...	...	Nil	0.08	...	...	...	37.10	...
CHOTA NAU-PUR.	Monghyr ...	Shahpur ...	...	...	...	...	...	...	...	Nil	0.08	...	...	...	39.79	...
		Chahat Bamda ...	...	...	...	...	...	...	...	1	0.84	2.68	Nil	0.70	37.24	30.72
		Chuprasa ...	...	0.84	...	...	...	...	0.08	Nil	0.08	1.98	0.08	0.52	32.18	...
		Basumail ...	...	...	...	...	...	...	...	Nil	Nil	3.60	Nil	1.61	55.44	38.08
		Goda ...	...	...	...	...	...	...	0.23	2	0.45	2.22	0.23	0.70	50.85	38.40
		Pakour ...	...	...	0.42	...	...	...	...	Nil	Nil	2.11	Nil	0.71	31.93	36.58
		Naga Dumka ...	...	...	...	...	...	...	0.25	1	0.30	2.00	0.25	0.30	45.20	37.01
		Deoghar ...	...	...	0.05	...	...	...	...	Nil	Nil	...	...	...	...	...
		Jamir ...	...	...	...	...	...	...	...	Nil	Nil	...	...	...	...	...
		Holboda ...	...	...	...	...	...	...	...	Nil	Nil	...	...	...	...	...
CHOTA NAU-PUR.	Nanhat ...	Nanhat ...	...	...	...	...	...	...	...	Nil	Nil	...	...	...	...	...
		Pachamba ...	...	...	...	0.08	...	...	0.38	1	0.46	2.13	0.38	0.50	40.90	34.95
		(Girdh) ...	...	...	...	...	0.12	...	...	2	0.24	2.04	0.10	0.54	20.55	35.33
		Hazaribach ...	0.08	...	...	...	...	...	0.12	2	0.24	2.00	0.10	0.51	39.20	39.20
		Semunguran ...	...	...	...	...	...	...	...	2.83	...	...	...	0.53	37.55	...
		Mahudi Hill ...	...	...	...	...	...	...	...	2.90	...	...	...	0.43	46.67	...
		Jhuma Hill ...	...	...	...	...	...	...	0.22	1	0.22	...	0.22	...	41.08	...
		Barhi ...	...	...	0.32	...	...	...	...	Nil	Nil	...	...	...	32.00	...
		Chatra ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Kur igdoha ...	0.00	...	...	...	...	...	...	...	...	...	...	...	...	...
CHOTA NAU-PUR.	Rangar ...	Rangar ...	...	...	...	...	0.10	0.54	0.30	0.35	1.15	2.26	0.85	0.80	43.85	38.62
		Lohardaga ...	...	...	...	...	...	0.30	0.30	1.30	...	2.31	...	0.07	...	30.10
		Kaohi ...	...	...	...	...	...	...	...	...	...	...	...	...	31.66	...
		Palaman ...	...	...	...	...	...	...	...	Nil	Nil	...	...	...	...	...
		Palaman (Dul-tangun) ...	...	...	...	0.02	1.38	0.40	...	0.24	1	0.24	...	0.24	...	34.10
		Bahamath ...	...	...	...	...	0.88	...	...	...	...	...	...	...	...	...
		Husainabad ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Garkhua ...	...	...	...	...	...	...	...	0.04	1.77	2.28	0.40	0.81	41.53	30.42
		Chalibasa ...	0.04	0.30	0.41	0.60	0.02	0.80	0.04	4	1.77	2.28	0.40	0.81	28.14	...
		Chakardhar ...	0.08	0.27	0.02	...	...	...	0.08	2	2.09	...	...	...	...	...
CHOTA NAU-PUR.	Manbhum ...	Ghatila ...	1.00	1.25	...	...	...	...	...	0.80	2	0.98	0.80	...	37.20	...
		Baharagura ...	...	...	...	...	...	...	...	0.02	2	8.02	0.02	...	68.54	...
		Gulkeira ...	0.33	2.10	...	...	...	...	...	3	0.98	2.28	Nil	0.77	51.45	37.01
		Kalikapur ...	...	...	...	0.44	...	...	...	0.02	2	1.28	0.02	0.48	54.20	33.4
		Parul ...	0.40	0.18	...	...	...	...	...	0.25	2	0.40	...	0.25	...	...
		Gobindpur ...	...	0.36	...	...	0.15	...	...	...	...	...	...	...	...	...
		Raghunath-pore ...	...	...	...	...	...	...	...	0.04	3	0.78	...	0.04	...	50.42
		Barahabhum ...	...	0.25	0.33	0.18	...	...	0.68	3	1.54	...	0.58	...	41.52	...
		Jhalda ...	0.30	0.37	...	...	...	0.15	...	0.02	2	1.07	...	0.92	...	...
		Uhas ...	...	...	...	...	...	...	...	0.10	2	0.46	...	0.10	...	43.75
		Pandra ...	0.27	...	...	...	...	...	...	...	...	...	...	...	...	...

Explanation.—... indicates that no rain has fallen. If the return for any day has not been received, the corresponding space is left blank. If any of the returns wanting, the corresponding spaces in the total rainfall columns are left blank. With reference to the column of rainy days, the definition of a rainy day is when at least 0.1 inches of rain has fallen.

CALCUTTA, the 5th September 1893.

**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSER-  
VATIONS TAKEN IN ASSAM, FOR THE WEEK ENDING 8 A.M.  
SATURDAY, THE 2ND OF SEPTEMBER 1893.**

At the end of the previous week a slight residual depression remained off the Orissa coast for some days, and at the beginning of the present one was in the same position, but was somewhat better defined. It was not of sufficient depth to cause disturbed weather in that region of the Bay, and even in Orissa the only result was seen in light winds of abnormal direction and fairly general rainfall. On the second day of the week it had almost disappeared, the area of lowest pressure being transferred northwards to South-West Bengal and Chota Nagpur, where rainfall became more general and moderately heavy for a day or two. Thus soon after the week began, fairly normal conditions prevailed over the greater part of the province, except as to the rainfall, which was scanty in the northern districts.

On Tuesday, the 29th, signs of the formation of a new depression began to appear in Burma. Pressure fell briskly not only in Burma but also in Bengal, and from that time till the end of the week there was a steady downward tendency, which gradually resulted in a depression of considerable depth. The influence in Bengal was very slight till the 31st, as the wind circulation continued easterly, and comparatively fine weather with light local showers generally prevailed, but while the depression was forming, very heavy rain fell in Burma, especially at Moulmein and Tavoy. On the 31st a shallow depression extended across the north of the Bay from Arakan to Orissa, and winds on the north-west coast became northerly, though everywhere very light. In the central and northern districts of Bengal rainfall was becoming more scattered, but otherwise there was no change. On the following day, the 1st of September, a further brisk fall of pressure set in from the east, the depression became better defined, and the area of lowest pressure was then in the north-west of the Bay; gradients were steeper in the south of the Bay, and south-westerly winds were blowing in Madras, the Circars, Burma and probably the part of the Bay between. On the last day of the week pressure fell rapidly in South-West Bengal and briskly over the whole province, and the depression appeared to be moving northwards. Heavy rain was then falling in Orissa, and showers were more numerous in all districts except Bihar and North Bengal, where, owing to the indraught, rainfall had almost entirely ceased.

Over the province, therefore, the most important feature of the weather during the week has been the scanty rainfall and consequent high temperature except in Orissa, where general rain fell in the early part and heavy rain on the last day of the week, resulting in the average fall being rather over the normal.

*Pressure.*—At the beginning of the week pressure was above the normal by nearly a tenth of an inch in the northern districts, about a twentieth in Lower Bengal and Chota Nagpur, while in the Circars and the south of Orissa there was a small defect. On the second day of the week it began to fall slowly and continued to fall, at times slowly and others briskly almost without interruption during the remaining days. On the last day of the week, when the depression was over the north-west of the Bay, defect was more than a quarter of an inch in the area of lowest pressure, and more than  $\frac{1}{15}$  inch over a great part of the province.

*Temperature* continued high in all districts throughout the week except in Orissa, where the average for the whole week is slightly below the normal. In Bihar mean excess is between  $2^{\circ}$  and  $3^{\circ}$ , and in the other districts between  $1^{\circ}$  and  $2^{\circ}$ .

*Rainfall.*—Fairly general rain fell in Orissa in the early part of the week and also in parts of South-West Bengal and North Bengal, but amounts were generally very small, and the average falls are much below the normal except in Orissa. The falls have been very light in Bihar and Chota Nagpur, the former receiving little more than a sixth part, and the latter only a quarter of the normal. South-West Bengal has received less than one inch instead of between two and three inches. The fall in East Bengal is 1.07 inches and in North Bengal 0.97 inch below the normal.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 2nd of September 1893:—

METEOROLOGICAL DIVISIONS.		TEMPERATURE.							RAINFALL.								
		Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.		Since 1st of May 1893.	
				Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.
Orissa	...	93.2	71.1	88.4	78.6	83.5	+0.5	2.82	1.97	+0.85	2.40	3.00	+0.50	1.56	0.63	39.45	35.24
South-West Bengal	...	95.7	76.8	90.3	79.5	84.9	+1.6	0.91	2.15	-1.24	2.26	3.11	-0.85	0.27	0.61	46.13	37.02
North Bengal	...	98.6	74.6	89.6	79.1	84.4	+1.3	2.04	0.97	-0.97	2.93	3.38	-0.45	0.27	1.05	59.55	51.48
East Bengal	...	91.8*	75.6*	88.4*	78.9*	83.7*	+1.6*	1.73	2.80	-1.07	3.08	3.80	-0.72	0.50	0.87	66.32	56.08
North Bihar	...	94.2	76.9	90.6	80.1	85.4	+2.2	0.88	2.79	-2.21	1.11	3.15	-2.04	0.15	0.88	38.50	34.68
South Bihar	...	93.9	75.0	91.6	80.3	86.0	+2.6	0.34	2.24	-1.90	0.55	2.82	-2.27	0.22	0.64	54.97	39.08
Chota Nagpur	...	91.4	71.4	86.8	74.6	80.7	+1.5	0.59	2.34	-1.75	1.55	3.47	-1.92	0.24	0.62	43.36	37.08
Assam	...	90.1	75.8	89.1	78.6	83.9	+1.3										

\* Daltonganj not included.

METEOROLOGICAL OFFICE, BENGAL, C. LITTLE,  
The 5th September 1893. Offg. Meteorological Reporter to the Govt. of Bengal.

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 27th August to 2nd September 1893.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.				HYGROMETRY.					Rainfall, past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
August	27th	29.761	84.4	89.0	9.2	79.8	87.6	83.5	1.004	82.0	84	0.15
	28th	.707	83.4	88.0	9.2	78.8	84.6	79.5	.441	77.4	79	0.37
	29th	.652	83.9	90.0	12.2	77.8	87.6	83.5	1.093	82.0	84	0.18
	30th	.642	86.0	93.0	14.0	79.0	87.1	83.0	1.375	81.4	84	0.02
	31st	.647	85.7	92.0	12.7	79.3	87.1	82.0	1.026	80.0	80	1.15
September	1st	.592	84.4	89.0	9.2	79.8	88.1	82.5	1.037	80.3	78	
"	2nd	.483	83.4	87.0	7.2	79.8	84.6	80.0	.964	78.1	81	0.05

The mean 10 A.M. pressure of the seven days ... ..	Inches.	29.641
The mean temperature of the seven days ... ..	°	84.5
The extreme variation of temperature ... ..	°	15.2
The maximum temperature ... ..	°	93.0
The mean 10 A.M. relative humidity of the seven days ... ..	%	81
The total fall of rain from 27th August to 2nd September 1893 ... ..	Inch.	1.92
The daily mean temperatures are the crude means of maximum and minimum temperatures.		

J. H. GILLILAND,  
For Meteorological Reporter to the Govt. of India.  
METEOROLOGICAL OFFICE, INDIA,  
The 4th September 1893.

**Results of the Meteorological Observations taken at the Alipore Observatory from  
27th August to 2nd September 1893.**

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
		°		Inches.	°	°	°	°	°	Inches	°	%			Inches.	
Augt.	27th	154·8	3·1	29·691	82·2	87·6	8·4	70·2	80·2	1·004	79·3	91	SE, ESE and SSE	79	0·59	Chiefly cloudy, o, g, p, t, $\Delta$ .
"	28th	132·5	0·5	·649	82·0	85·1	6·4	78·7	80·2	1·010	79·6	92	SSE and SE by E	94	0·24	Chiefly cloudy, o, d, p, t.
"	29th	147·5	6·1	·600	83·4	87·8	10·3	77·5	81·0	1·030	80·1	90	SE by E and SSE	57	0·12	Partially cloudy, d, p.
"	30th	150·4	7·9	·588	84·1	90·1	11·1	79·0	81·3	1·033	80·2	89	SW by S, E and ESE.	79	1·79	Partially cloudy, o, g, p, t.
"	31st	152·0	8·0	·587	85·1	90·1	12·0	78·1	80·2	0·966	78·2	79	E and ESE	102	Nil	Partially cloudy, t.
Sept.	1st	158·3	3·4	·527	84·2	87·1	7·6	79·5	79·8	·959	78·0	81	ESE and ENE	125	"	Chiefly cloudy, o, t.
"	2nd	140·3	1·7	·429	82·1	85·6	5·9	79·7	79·1	·955	77·8	87	E by S, ENE and E.	145	0·41	Chiefly cloudy, o, d, p, t.

The mean pressure of the seven days	...	...	...	Inches.
The average pressure of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	29·582
The total number of hours of bright sunshine	...	...	...	Hours.
The maximum possible number of hours of sunshine	...	...	...	30·7
				88·1
				°
The mean temperature of the seven days	...	...	...	83·3
The average temperature of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	83·7
The extreme variation of temperature	...	...	...	12·6
The maximum temperature	...	...	...	90·1
				Miles.
The highest velocity of the wind in one hour	...	...	...	13
				lbs.
The highest pressure of wind on one square foot	...	...	...	?
				%
The mean relative humidity	...	...	...	87
The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	85
				Inches.
The total fall of rain from 27th August to 2nd September 1893	...	...	...	3·15
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	2·14
The total fall from 1st January to 2nd September 1893	...	...	...	69·53
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	48·93

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o, overcast; g, gloomy; p, passing temporary showers; t, thunder; d, drizzling rain;  $\Delta$ , dew.

Vital Statistics of the Districts of Bengal for the month of July 1893.

Divisions.	Districts.	BIRTHS.		DEATHS.										AVERAGE OF CORRESPONDING MONTHS OF PREVIOUS FIVE YEARS.		REMARKS.					
		Population under registration.	Ratio per 1,000 of population.	CHOLERA.	SMALL-POX.	FEVER.	DYSENTERY AND DIARRHÆA.	INJURY.	OTHER CAUSES.	TOTAL OF ALL CAUSES.	Number registered.	Ratio per 1,000 of population.									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Burdwan	Burdwan	1,391,880	4,340	39.75	11	.08	9	.07	1,638	14.04	31	.44	51	.36	758	6.48	2,596	21.60	2,886	20.59	Return not received up to date.
	Bankura	1,039,678	4,070	40.20	...	...	4	.03	1,175	13.06	27	.24	57	.50	430	3.98	1,713	19.44	1,805	18.00	
	Birbhum	727,253	2,729	40.01	...	...	...	...	1,198	16.68	10	.12	39	.48	523	7.23	1,712	25.48	1,653	24.48	
	Burdwan	2,631,316	7,530	33.36	51	.12	37	.12	3,260	14.76	149	.60	134	.60	997	4.08	4,351	20.64	4,301	20.52	
Presidency	Burdwan	1,070,710	3,014	33.84	31	.24	...	...	1,437	16.20	143	1.55	92	.96	451	5.04	2,177	24.24	1,855	17.88	
	Burdwan	721,211	1,938	32.16	...	...	...	...	1,354	19.08	135	1.55	67	.60	287	4.95	1,255	21.36	1,279	16.20	
	Presidency	1,644,087	6,791	40.98	1	.07	1	.07	3,994	25.40	17	.12	115	.72	626	4.44	2,007	22.32	2,156	15.84	
	Presidency	1,888,837	5,528	35.04	2	.01	...	...	2,907	19.40	...	...	125	.72	366	2.98	1,159	22.52	1,517	17.88	
B. jibhi	Murshidabad	1,230,948	4,779	45.84	13	.12	...	...	1,788	18.12	10	.09	108	.60	375	3.72	2,257	22.92	1,927	18.48	
	Khulna	1,177,652	2,741	27.84	...	...	...	...	1,465	16.12	9	.06	105	.72	191	1.44	4,219	32.52	2,849	21.96	
	Bangladesh	1,465,835	5,474	42.12	...	...	...	...	3,213	30.12	2	.01	96	.64	208	1.92	3,483	31.32	2,534	21.24	
	Bangladesh	1,313,389	8,201	29.76	...	...	...	...	3,150	27.72	9	.04	116	.84	254	1.44	4,061	24.60	3,631	21.12	
Dacca	Bangladesh	2,068,461	9,525	30.84	...	...	...	...	3,150	27.72	4	.01	74	.64	220	1.72	2,867	24.96	1,406	20.88	
	Bangladesh	1,817,469	8,307	28.90	...	...	...	...	2,848	20.16	2	.01	74	.64	187	1.52	2,654	24.00	1,401	20.64	
	Bangladesh	1,382,312	7,744	39.96	...	...	...	...	1,889	22.04	235	1.98	114	.84	178	1.32	2,871	29.48	1,891	20.76	
	Bangladesh	2,102	3,353	24.00	...	...	...	...	1,889	22.04	103	1.08	31	.48	78	1.32	1,871	29.48	1,891	20.76	
Chittagong	Bangladesh	2,420,156	4,981	26.98	...	...	...	...	2,447	16.44	103	1.08	31	.48	60	2.40	2,904	19.42	2,805	19.12	
	Bangladesh	1,267,920	3,774	32.00	...	...	...	...	2,447	16.44	103	1.08	31	.48	60	2.40	2,904	19.42	2,805	19.12	
	Bangladesh	2,173,165	4,224	23.50	...	...	...	...	3,411	18.96	35	.12	107	.48	60	2.40	2,904	19.42	2,805	19.12	
	Bangladesh	3,472,150	3,916	20.40	...	...	...	...	3,411	18.96	35	.12	107	.48	60	2.40	2,904	19.42	2,805	19.12	
Patna	Bangladesh	1,260,167	3,543	30.40	...	...	...	...	3,411	18.96	35	.12	107	.48	60	2.40	2,904	19.42	2,805	19.12	
	Bangladesh	1,783,632	3,398	29.40	...	...	...	...	3,411	18.96	35	.12	107	.48	60	2.40	2,904	19.42	2,805	19.12	
	Bangladesh	1,780,094	4,254	28.92	...	...	...	...	3,411	18.96	35	.12	107	.48	60	2.40	2,904	19.42	2,805	19.12	
	Bangladesh	2,188,331	6,379	30.12	...	...	...	...	3,411	18.96	35	.12	107	.48	60	2.40	2,904	19.42	2,805	19.12	
Orissa	Bangladesh	2,063,337	3,448	29.92	...	...	...	...	3,411	18.96	35	.12	107	.48	60	2.40	2,904	19.42	2,805	19.12	
	Bangladesh	2,711,445	6,018	29.00	...	...	...	...	3,411	18.96	35	.12	107	.48	60	2.40	2,904	19.42	2,805	19.12	
	Bangladesh	2,591,955	6,109	29.84	...	...	...	...	3,411	18.96	35	.12	107	.48	60	2.40	2,904	19.42	2,805	19.12	
	Bangladesh	2,467,477	4,743	27.36	...	...	...	...	3,411	18.96	35	.12	107	.48	60	2.40	2,904	19.42	2,805	19.12	
Chota Nag.	Bangladesh	1,858,465	6,143	36.12	...	...	...	...	3,411	18.96	35	.12	107	.48	60	2.40	2,904	19.42	2,805	19.12	
	Bangladesh	2,786,921	4,743	27.36	...	...	...	...	3,411	18.96	35	.12	107	.48	60	2.40	2,904	19.42	2,805	19.12	
	Bangladesh	1,932,638	4,743	27.36	...	...	...	...	3,411	18.96	35	.12	107	.48	60	2.40	2,904	19.42	2,805	19.12	
	Bangladesh	1,814,419	2,910	32.52	...	...	...	...	3,411	18.96	35	.12	107	.48	60	2.40	2,904	19.42	2,805	19.12	
Difference + or -	Total	6,496,050	190,433	31.68	1,219	.24	1,590	.12	97,219	16.92	2,821	.48	4,332	.72	23,140	3.84	120,342	29.56	125,893	21.84	
	Average of corresponding month of previous five years	Not available, as birth registration in rural areas was only introduced from 1872.	16,625	2.88	983	.19	82,234	14.40	3,963	.60	4,967	.60	17,443	5.00	125,893	3.00	29,944	21.94	...	...	
	Difference + or -	...	-16,008	-9.64	...	...	Equal.	+14,926	+9.52	-1,071	-1.12	+215	+1.12	+4,905	+8.84	+4,049	+7.72	...	...		

\* The registration of births in rural areas of the Darjeeling district was discontinued, vide para. 3 of the Government orders No. 125T.M., dated the 17th May 1888, to the Commissioner of Rajshahi Division.

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,  
The 2nd September 1893.

H. J. DYSON, Sanitary-Capt., F.R.C.S.,  
Offg. Sanitary Commissioner for Bengal.



Vital Statistics of Towns in Bengal with a population of 20,000 and over during the month of July 1893.

DISTRICTS.	TOWNS.	Population under registra- tion.	BIRTHS.		DEATHS.										AVERAGE OF CORRESPONDING MONTHS OF PRE- VIOUS FIVE YEARS.		REMARKS.					
			Number re- gistered.	Ratio per 1,000 of population.	CHOLERA.	SMALL-POX.	FEVER.	DYSSENTERY AND DIARRHEA.	INJURY.	OTHER CAUSES.	TOTAL OF ALL CAUSES.	Ratio per 1,000 of population.	Number regis- tered.	Ratio per 1,000 of population.	Number regis- tered.	Ratio per 1,000 of population.						
					Number regis- tered.	Ratio per 1,000 of population.	Number regis- tered.	Ratio per 1,000 of population.	Number regis- tered.	Ratio per 1,000 of population.	Number regis- tered.	Ratio per 1,000 of population.	Number regis- tered.	Ratio per 1,000 of population.	Number regis- tered.	Ratio per 1,000 of population.		Number regis- tered.	Ratio per 1,000 of population.			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Burdwan	1. Burdwan	31,477	79	27.48	2	1	60	...	84	18.72	8	2.76	2	1.60	12	4.08	78	27.19	74	25.68		
Midnapore	2. Midnapore	82,294	76	26.68	1	36	...	26	26	9.60	11	4.04	1	1.36	16	2.16	45	16.68	60	22.20		
Hooghly	3. Hooghly and Chinsura	83,060	80	26.92	3	7.08	...	51	51	13.48	13	4.68	8	2.88	22	7.92	97	35.16	88	24.60		
Howrah	4. Howrah	33,932	70	23.28	21	6.94	...	70	70	23.28	24	7.92	4	1.32	13	6.24	138	45.96	85	27.10		
	5. Calcutta	116,836	138	14.16	23	9.52	...	63	63	6.60	31	3.24	3	2.4	34	5.48	159	16.52	117	12.00		
	6. Cossimbazar-Chitpur																					
	7. Manikiala																					
	8. Barrapore																					
	9. South Suburban																					
	10. Kolkata or South Bar- rackpore.																					
24-Parganas	11. Nallan																					
	12. Naldighi																					
	13. Krishnagar	31,500	61	26.68	...	...	...	...	24	11.28	1	3.6	...	...	11	5.16	36	16.92	31	10.80		
Nadia	14. Santipur	30,437	101	32.72	...	...	...	...	26	19.68	...	...	...	...	6	2.76	66	21.96	28	22.50		
	15. Murshidabad City	33,576	80	26.80	...	...	...	...	22	17.32	...	...	...	...	11	4.32	69	23.16	60	22.50		
Murshidabad	16. Murshidabad City	93,515	52	19.80	...	...	...	...	40	13.68	...	...	...	...	25	7.04	47	23.84	34	17.20		
Bajbahi	17. Baranpur Balia	21,467	58	23.40	...	...	...	...	42	23.52	...	...	...	...	8	4.04	54	39.24	53	24.00		
Pobna	18. Baranpur Balia	23,267	49	25.50	...	...	...	...	48	21.28	...	...	...	...	9	4.04	56	39.24	53	24.00		
Dacca	19. Dacca	53,723	119	17.04	...	...	...	...	83	19.12	25	3.96	5	1.60	33	4.96	177	28.32	184	19.80		
Chittagong	20. Chittagong	24,043	53	26.40	...	...	...	...	43	23.40	...	...	...	...	9	4.04	56	39.24	53	24.00		
	21. Patna City	155,193	137	22.90	...	...	...	...	28	17.01	50	3.60	17	1.20	130	7.92	131	31.90	205	21.48		
Patna	22. Bihar	47,723	137	39.56	...	...	...	...	48	23.48	13	3.24	3	1.20	39	7.92	131	31.90	205	21.48		
	23. Dinapore	41,411	101	27.24	...	...	...	...	48	23.48	13	3.24	3	1.20	39	7.92	131	31.90	205	21.48		
	24. Gaya	89,383	186	29.16	...	...	...	...	36	31.00	14	3.72	4	1.08	24	7.56	105	28.32	85	22.92		
Gaya	25. Gaya	46,995	98	24.96	...	...	...	...	24	20.40	...	...	...	...	...	11	4.04	56	39.24	53	24.00	
Shahabad	26. Shahabad	22,713	70	26.96	...	...	...	...	36	20.40	...	...	...	...	...	11	4.04	56	39.24	53	24.00	
	27. Muzaffarpur	42,192	120	29.16	...	...	...	...	36	20.40	...	...	...	...	...	11	4.04	56	39.24	53	24.00	
Muzaffarpur	28. Muzaffarpur	21,447	65	36.64	...	...	...	...	36	20.40	...	...	...	...	...	11	4.04	56	39.24	53	24.00	
	29. Darbhanga	73,561	141	23.40	...	...	...	...	36	20.40	...	...	...	...	...	11	4.04	56	39.24	53	24.00	
Darbhanga	30. Darbhanga	22,784	64	17.52	...	...	...	...	36	20.40	...	...	...	...	...	11	4.04	56	39.24	53	24.00	
	31. Champaran	22,784	64	17.52	...	...	...	...	36	20.40	...	...	...	...	...	11	4.04	56	39.24	53	24.00	
Champaran	32. Champaran	6,077	13	16.84	...	...	...	...	36	20.40	...	...	...	...	...	11	4.04	56	39.24	53	24.00	
	33. Bhagalpur	47,196	183	31.08	...	...	...	...	36	20.40	...	...	...	...	...	11	4.04	56	39.24	53	24.00	
Bhagalpur	34. Bhagalpur	22,784	64	17.52	...	...	...	...	36	20.40	...	...	...	...	...	11	4.04	56	39.24	53	24.00	
	35. Cuttack	47,196	183	31.08	...	...	...	...	36	20.40	...	...	...	...	...	11	4.04	56	39.24	53	24.00	
Cuttack	36. Cuttack	22,784	64	17.52	...	...	...	...	36	20.40	...	...	...	...	...	11	4.04	56	39.24	53	24.00	
	37. Balesore	47,196	183	31.08	...	...	...	...	36	20.40	...	...	...	...	...	11	4.04	56	39.24	53	24.00	
Balesore	38. Balesore	22,784	64	17.52	...	...	...	...	36	20.40	...	...	...	...	...	11	4.04	56	39.24	53	24.00	
Lohardaga	39. Lohardaga	47,196	183	31.08	...	...	...	...	36	20.40	...	...	...	...	...	11	4.04	56	39.24	53	24.00	
	Total	1,290,714	2,030	25.20	317	9.38	16	12	1,874	16.08	385	3.24	29	8.4	875	7.44	3,389	30.96	3,244	27.84		
	Average of the corre- sponding month of previous five years.	...	Complete Average because of past five years are not available.	...	793	6.72	39	24	1,108	9.96	337	2.88	09	4.8	840	7.20	3,244	27.84	...	...		
	Difference + or -	...	...	...	-446	-5.84	-23	-12	+708	+0.12	+43	+3.6	+50	+3.6	+39	+24	+345	+3.12	...	...		

Returns not received  
up to date.H. J. DYSON, Surgeon-Capt., F.R.C.S.,  
Offg. Sanitary Commissioner for Bengal.OFFICE OF SANITARY COMMISSIONER FOR BENGAL,  
The 2nd September 1893.

Supplementary Vital Statistics of Districts for June 1893 received too late for publication with the figures of that month on the 28th July 1893.

Divisions.	Districts.	BIRTHS.		DEATHS.																	AVERAGE OF CORRESPONDING MONTHS OF PREVIOUS FIVE YEARS.	
		Population under registration.	Number registered.	Ratio per 1,000 of population per annum.	CHOLERA.		SMALL-POX.		FEVER.		DYSENTERY AND DIARRHOEA.		INJURY.	OTHER CAUSES.		TOTAL OF ALL CAUSES.		Ratio per 1,000 per annum.	Number registered.	Ratio per 1,000 per annum.		
					Number registered.	Ratio per 1,000 per annum.	Number registered.	Ratio per 1,000 per annum.	Number registered.	Ratio per 1,000 per annum.	Number registered.	Ratio per 1,000 per annum.		Number registered.	Ratio per 1,000 per annum.	Number registered.	Ratio per 1,000 per annum.				Number registered.	Ratio per 1,000 per annum.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
Burdwan ... 24-Parganas ... Nadia ... Jessore ... Darjeeling ... Patna ... Shalabad ... Cuttack ... Total ... Average of corresponding month of previous five years.	Burdwan ...	797,923	3,280	49.44	1	.01	...	...	1,041	15.60	7	.09	29	.36	699	9.12	1,687	26.32	1,484	21.98		
	24-Parganas ...	1,992,083	4,555	26.28	29	.12	5	.03	2,237	14.04	96	.48	145	.84	327	9.04	2,893	17.93	2,146	13.66		
	Nadia ...	1,644,108	5,781	49.00	9	.06	5	.03	1,857	13.32	16	.09	83	.60	541	3.94	2,498	16.12	2,171	16.84		
	Jessore ...	1,888,527	6,594	36.52	10	.06	...	...	3,277	29.76	5	.02	135	.84	338	3.94	3,705	23.68	2,744	17.40		
	Darjeeling ...	223,314	53	26.68	4	.04	...	...	447	24.00	106	.54	6	.04	103	5.59	671	36.00	720	36.64		
	Patna ...	1,769,044	3,149	21.36	4	.04	23	.12	1,887	15.36	109	.72	84	.18	183	4.08	2,763	18.72	4,373	29.64		
	Shalabad ...	2,062,317	2,775	16.98	2	.01	31	.12	2,643	15.36	13	.07	68	.36	290	1.68	3,473	12.64	4,303	26.08		
	Cuttack ...	1,997,671	5,314	32.88	10	.06	213	1.20	1,271	7.80	179	1.08	113	.60	500	4.92	2,586	15.96	4,341	26.88		
	Total ...	12,216,137	30,600	30.00	117	1.08	277	.24	14,630	14.28	531	.48	675	.60	3,611	3.48	19,544	19.44	22,262	21.84		
	Average of corresponding month of previous five years.	...	...	Not available, as birth registration in rural areas was only introduced from 1892.	...	4,153	3.96	272	.24	13,317	13.08	708	.72	689	.60	3,023	2.88	92,283	21.84	...	...	
Difference + or -	...	...	...	...	-4,036	-2.88	+5	Equal	+1,313	+1.20	-267	-.24	-21	Equal	+588	+60	-2,415	-2.40	...	...		
Total for the Province	...	70,388,083	180,404	27.36	1,477	.24	1,585	.24	55,863	14.64	3,300	.36	3,322	.60	18,231	3.00	113,080	19.20	125,205	21.24		
Average of corresponding month of previous five years.	...	...	Not available, as birth registration in rural areas was only introduced from 1892.	...	20,546	3.49	1,396	.12	80,152	13.66	3,540	.60	3,576	.60	15,862	2.64	125,203	21.24	...	...		
Difference + or -	...	...	...	...	-19,072	-3.24	+189	+12	+5,791	+1.08	-1,240	-.24	-54	Equal	+2,971	+3.6	-12,123	-2.04	...	...		

\* The registration of births in rural areas of the Darjeeling district was discontinued, vide paragraph 3 of the Government orders No. 1257 M., dated the 17th May 1893, to the Commissioner of Rajshahi Division.

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,  
The 2nd September 1893.  
H. J. DYSON, Surgeon-Capt., F.R.C.S.,  
Offg. Sanitary Commissioner for Bengal.

Supplementary Vital Statistics of Towns in Bengal with a population of 20,000 and over for June 1893 received too late for publication with the figures of that month on the 28th July 1893.

DISTRICTS.	TOWNS.	BIRTHS.		DEATHS.										AVERAGE OF CORRESPONDING MONTH OF PREVIOUS FIVE YEARS.						
		Population under registration.	Number registered.	Ratio per 1,000 of population.	CHOLERA.	SMALL-POX.	FEVER.	DYSENTERY AND DIARRHEA.	INJURY.	OTHER CAUSES.		TOTAL OF ALL CAUSES.	Ratio per 1,000 of population.	Number registered.	Ratio per 1,000 of population.					
										Number registered.	Ratio per 1,000 of population.									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
24 Parganas	1. Cosmopol-Chitpur	31,423	32	19.12	1	.36	.....	.....	28	10.68	5	1.80	1	.36	9	3.36	44	16.80	47	17.88
	2. Manikata	32,865	32	11.64	1	.36	.....	.....	42	15.24	8	.72	.....	.60	2	.72	47	17.16	27	9.24
	3. Barnaula	34,278	36	12.60	3	.96	.....	.....	26	9.00	8	2.76	2	.60	10	3.60	57	19.92	55	19.20
	4. South Suburban	68,942	99	17.04	6	.96	.....	.....	51	8.76	6	.96	2	.24	10	1.68	75	12.84	40	6.24
	5. Khorda or South Barrack-pore.	35,647	30	10.08	4	1.32	.....	.....	27	9.00	5	1.68	3	.96	9	.96	42	14.04	38	12.72
Medinipur	6. Nallahi	29,724	61	26.64	2	.72	.....	.....	32	12.84	2	.72	.....	.48	7	2.76	43	17.28	38	15.24
	7. Nawabganj or North Barrack-pore.	20,980	33	18.84	4	2.28	.....	.....	27	16.56	7	3.96	1	.48	6	3.36	43	26.68	37	21.12
	8. Krishnagar	25,500	61	28.68	.....	.....	.....	.....	30	9.36	.....	2.88	.....	.....	3	1.32	23	10.80	25	11.76
	9. Santipur	30,437	93	26.60	.....	.....	.....	.....	46	18.12	4	2.88	.....	.....	4	1.68	66	27.96	17	6.60
	10. Patna City	165,152	272	19.68	31	3.40	.....	.....	130	12.00	41	3.24	10	.72	117	8.40	385	27.44	389	29.64
Shahabad...	11. Bihar	47,733	115	29.88	.....	.....	.....	.....	54	14.04	13	3.24	3	.72	37	3.72	108	27.36	118	29.64
	12. Dinapore	44,419	38	10.20	.....	.....	.....	.....	37	9.96	1	.24	.....	.....	14	3.72	33	14.04	64	17.28
	13. Arrah	40,005	66	16.80	.....	.....	.....	.....	70	17.88	5	1.80	1	.24	9	2.28	85	21.72	81	20.64
	14. Sasaram	22,713	64	34.80	.....	.....	.....	.....	29	16.94	2	.96	.....	.48	6	3.12	38	20.04	115	60.72
	15. Cuttack	47,183	95	24.12	3	.48	.....	.....	13	5.00	14	3.48	.....	.....	22	6.52	50	12.60	60	15.24
Cuttack	TOTAL	684,634	1,138	19.92	57	.96	5	.08	683	11.88	117	9.04	24	.36	263	4.56	1,151	20.16	1,071	18.72
	Average of corresponding month of previous five years.	...	Complete figures of past five years are not available.	average	237	4.08	31	.48	479	8.28	90	1.56	25	.36	208	3.60	1,071	18.72	.....	.....
	Difference + or -	...	.....	.....	-180	-3.12	-28	-40	+204	+3.60	+27	+48	-1	Equal	+58	+96	+88	+1.44	.....	.....
	Total of all towns with a population of 2,140 and over.	1,640,273	3,978	22.32	167	1.20	58	.36	1,760	12.72	340	2.40	67	.48	763	5.52	3,155	22.92	3,223	23.40
	Average of corresponding month of previous five years.	.....	Complete figures of past five years are not available.	average	750	5.40	67	.48	1,233	9.00	308	2.16	77	.48	768	5.52	3,223	23.40	.....	.....
Cuttack	Difference + or -	.....	.....	.....	-583	-4.20	-9	-12	+507	+3.72	+31	+24	-10	Equal	-8	Equal	-67	-48	.....	.....

H. J. DYSON, Surgn.-Capt., F.R.C.S.,  
Offg. Sanitary Commissioner for Bengal.

OFFICE OF SANIT. COMM. FOR BENGAL,  
The 2nd September 1893.

**IRRIGATION DEPARTMENT, BENGAL.**  
**IRRIGATION OPERATIONS FOR THE OFFICIAL YEAR 1893-94.**  
*Areas leased for irrigation up to end of July 1893.*

CIRCLE.	District.	Canal.	DETAILS OF AREAS LEASED.										Rainfall.		REMARKS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
			Estimated full discharge, in month.	Average discharge, in month.	C. ft.	C. ft.	Discharge utilized.	Approximate area of land irrigated during the year up to the end of the month.	Approximate area of land under irrigation up to the same date last year.	Annual leases.						1893-94.	1892-93.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
										Long term leases.	Five years, khair.	Khair.	Sugar-cane.	Bhadol.				Hot-weather.	Total.	Grand Total.	Up to end of month.	Up to end of month.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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\* There are no separate leases for sugarcane on the Sone Canals. all leased fields of that crop now come under one of the other heads.

O. C. LEES,  
*Offg. Under-Secy. to the Govt. of Bengal.*

CALCUTTA,  
*The 5th September 1893.*

CIRCULAR AND EASTERN CANALS.

Approximate return of traffic for the week ending Saturday, the 2nd September 1893, as compared with the corresponding week of the previous year.

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 2ND SEPTEMBER 1893.			WEEK ENDING SATURDAY, THE 2ND SEPTEMBER 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ...	504	84,925	1,065	290	79,675	1,369
Jute ...	105	52,125	868	132	38,470	716
Firewood ...	111	58,025	867	149	85,796	1,279
Other articles ...	746	1,84,550	2,590	771	2,03,470	2,998
Total ...	1,466	3,79,675	5,410	1,342	4,07,410	6,362

Weekly Return of Traffic Receipts on Indian Railways.

EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 26th August 1893, on 1,610½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	*272,210	Rs. A. P. 2,58,479 2 0	Mds. S. 24,50,074 30	Rs. A. P. 5,94,319 9 0	Rs. A. P. 13,363 0 0	Rs. A. P. 7,95,781 11 0	74,966	95,280	170,246
Or per mile of railway ...	.....	160 4 0	.....	315 9 0	8 4 11	494 1 11	.....	.....	.....
For previous 7½ weeks of half-year ...	2,005,946	23,43,571 6 0	1,46,77,474 0	32,70,411 6 0	1,04,840 7 0	57,18,823 3 0	549,515½	658,892½	1,208,408
Total for 8½ weeks ...	2,308,156	26,01,630 8 0	1,71,28,418 30	37,94,730 15 0	1,18,223 7 0	65,14,604 14 8	624,481½	754,172½	1,378,654
COMPARISON.									
Total for corresponding week of previous year ...	241,109	2,22,408 12 3	20,77,604 30	5,04,857 0 0	18,067 15 5	7,45,418 12 5	73,386	94,932	168,318
Per mile of railway corresponding week of previous year ...	.....	138 1 6	.....	313 8 8	11 3 5	462 13 7	.....	.....	.....
Total for corresponding 8½ weeks of previous year ...	2,080,048	19,42,268 11 1	1,80,98,671 20	38,50,170 8 0	1,34,429 13 10	59,86,869 3 5	606,777	752,440	1,359,217

\* The increase is chiefly due to movements of pilgrims.

TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 26th August 1893, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	15,951	Rs. A. P. 3,806 1 0	Mds. S. 18,217 30	Rs. A. P. 651 9 0	Rs. A. P. 8 0 0	Rs. A. P. 4,556 10 0	906	62	968
Or per mile of railway ...	.....	176 1 8	.....	29 4 6	0 5 9	204 11 11	.....	.....	.....
For previous 7½ weeks of half-year ...	*121,884	*20,586 2 0	757,446 30	†1,625 1 0	‡75 0 0	31,286 2 0	6,445	563	6,998
Total for 8½ weeks ...	137,835	33,482 3 0	75,664 20	2,270 10 0	83 0 0	36,841 13 0	7,351	615	7,966
COMPARISON.									
Total for corresponding week of previous year ...	15,361	3,633 12 3	5,417 20	177 0 0	6 2 0	3,821 14 3	908	62	968
Per mile of railway corresponding week of previous year ...	.....	163 8 8	.....	7 15 3	0 4 5	171 12 4	.....	.....	.....
Total for corresponding 8½ weeks of previous year ...	125,578½	38,048 2 0	47,808 0	1,840 6 0	64 5 6	30,961 14 3	7,629	480	8,118

\* Deducted number of passengers 28 and added Rs. 44½ on account of difference between the approximate and audited figures for the week ended 22nd July 1893,† Added maunds 12 and " 1 " 2 Deducted

## DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for week ended 26th August 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.		Rs. A. P.					
Total traffic for the week ...	10,408	12,882 13 0	49,210 30	7,833 7 0	28 0 0	20,733 4 0	6,256	2,846½	9,102½
Or per mile of railway ...	...	79 13 1	...	48 7 6	0 2 0	128 7 4	...	...	...
For previous 7½ weeks of half-year ...	*148,311	*1,01,384 0 0	*8,29,113 20	*47,017 4 0	1230 0 0	1,46,840 4 0	43,627	19,546½	63,173½
Total for 8½ weeks ...	168,340	1,14,290 13 0	3,78,333 10	54,830 11 0	267 0 0	1,69,373 8 0	49,883	22,193	72,076
COMPARISON.									
Total for corresponding week of previous year ...	22,449	12,300 2 8	34,175 10	7,164 2 0	33 0 0	18,492 10 8	6,053	2,601	8,744
Per mile of railway corresponding week of previous year ...	...	76 2 4	...	44 6 2	0 3 10	120 12 4	...	...	...
Total for corresponding 8½ weeks of previous year ...	149,357½	99,797 12 4	3,00,778 20	49,916 5 0	324 0 9	1,50,033 2 7	53,573	20,886	74,459

\* Added number of passengers 795 and Rs. 106½ on account of difference between the approximate and audited figures for the week ended 22nd July 1893.  
+ Ditto maunds 61,423 and .. 1,165  
‡ Deducted .. 16½

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K.-D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for the week ended 26th August 1893, on 777 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.		Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	159,420	71,940 0 0	9,91,620 0	2,09,610 0 0	25,350 0 0	3,06,200 0 0	28,109	32,213	60,313
Or per mile of railway ...	194	92 0 0	1,280 0	270 0 0	*17 0 0	*379 0 0	...	...	...
For previous 7 weeks of half-year ...	1,202,080	5,01,100 0 0	41,84,610 0	8,30,390 0 0	97,330 0 0	14,28,690 0 0	199,117	183,420	382,537
Total for 8 weeks ...	1,361,500	5,73,040 0 0	51,76,230 0	10,30,870 0 0	1,22,680 0 0	17,31,890 0 0	227,217	220,639	447,856
COMPARISON.									
Total for corresponding week of previous year ...	125,203	50,736 0 0	9,54,280 0	2,08,830 0 0	24,201 0 0	2,89,836 0 0	27,030	38,617	65,617
Per mile of railway corresponding week of previous year ...	161	73 0 0	1,225 0	269 0 0	*16 0 0	*358 0 0	...	...	...
Total to corresponding date of previous year ...	1,220,521	4,92,078 0 0	49,28,502 0	11,01,874 0 0	1,29,723 0 0	17,23,675 0 0	221,847	269,020	490,767

\* Excluding steamer earnings.

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for the week ended 26th August 1893, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.		Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	33,610	10,800 0 0	73,770 0	6,010 0 0	50 0 0	16,420 0 0	3,503	2,169	5,672
Or per mile of railway ...	263	83 0 0	582 0	48 0 0	...	131 0 0	...	...	...
For previous 7 weeks of half-year ...	243,880	76,400 0 0	3,09,370 0	1,1,730 0 0	610 0 0	1,01,710 0 0	29,212	14,235	43,767
Total for 8 weeks ...	277,490	86,760 0 0	3,82,040 0	39,740 0 0	660 0 0	1,18,160 0 0	29,735	16,794	46,430
COMPARISON.									
Total for corresponding week of previous year ...	24,712	8,044 0 0	53,092 0	5,123 0 0	53 0 0	13,222 0 0	3,503	2,169	5,672
Per mile of railway corresponding week of previous year ...	198	64 0 0	417 0	41 0 0	1 0 0	106 0 0	...	...	...
Total to corresponding date of previous year ...	245,393	75,852 0 0	3,65,690 0	24,329 0 0	651 0 0	1,04,604 0 0	30,820	16,702	47,031

## DACCA STATE RAILWAY.

Approximate Return of Traffic for the week ended 26th August 1893, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	14,830	5,070 0 0	16,440 0	1,250 0 0	70 0 0	6,430 0 0	2,487	737	3,224
Or per mile of railway ...	172	59 0 0	191 0	15 0 0	1 0 0	75 0 0	...	...	...
For previous 7 weeks of half-year ...	110,910	33,420 0 0	1,13,210 0	6,890 0 0	1,220 0 0	41,530 0 0	17,859	5,182	23,041
Total for 8 weeks ...	125,730	38,490 0 0	1,29,650 0	8,170 0 0	1,290 0 0	47,950 0 0	20,345	5,919	26,264
COMPARISON.									
Total for corresponding week of previous year ...	15,002	5,008 0 0	17,020 0	1,404 0 0	271 0 0	6,863 0 0	2,524	700	3,224
Per mile of railway corresponding week of previous year ...	174	59 0 0	208 0	18 0 0	3 0 0	80 0 0	...	...	...
Total to corresponding date of previous year ...	133,661	41,559 0 0	1,09,433 0	7,753 0 0	1,726 0 0	51,039 0 0	21,389	5,537	26,926

## BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIRHUT STATE RAILWAY.)

Approximate return of traffic for the week ending 26th August 1893, on 756 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs.	Mds.	Rs.	Rs.	Rs. s.			
Total traffic for the period on 756 miles open ...	98,630	33,870	1,71,890	23,008	10,220	69,090	12,128	14,453	26,581
Or per mile of railway ...	129.07	47.45	231.34	30.42	13.52	91.39	...	...	...
For previous 7½ weeks of half-year ...	636,392	2,44,923	15,62,456	2,21,698	75,000	5,45,121	92,545	111,149	203,694
Total for 8½ weeks ...	734,982	2,80,793	17,37,346	2,47,506	85,820	6,14,211	104,673	125,594	230,267
COMPARISON.									
Total for corresponding period of previous year on 756 miles open ...	82,301	32,987	2,38,340	27,908	10,038	70,313	12,760	14,085	26,845
Per mile of corresponding week of previous year ...	108.99	42.77	315.68	37.04	13.32	93.13	...	...	...
Total to corresponding date of previous year ...	681,740	2,47,444	21,91,380	2,77,653	65,883	5,90,960	110,443	130,223	240,666

\* Includes audited figures for first 8 days of July 1893.

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

	Rs.	A.	P.
Approximate earnings for the week ending 19th August 1893 ...	11,080	0	0
Corresponding period of 1892 ...	12,169	0	0
Decrease ...	1,109	0	0
Receipts per mile for the week ending 19th August 1893 ...	217	4	1
Corresponding period of 1892 ...	238	15	11
Decrease ...	21	11	10
Receipts from 1st July to 19th August 1893 ...	76,260	0	0
Corresponding period of 1892 ...	76,220	0	0
Increase ...	40	0	0







# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, SEPTEMBER 13, 1893.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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### RESOLUTION ON THE ANNUAL REPORT ON THE WORKING OF THE CALCUTTA SHIPPING OFFICE AND OF THE SHIPPING OFFICES AT THE OUTPORTS FOR THE YEAR 1892-93.

No. 2099 Marine.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

*Dated Calcutta, the 6th September 1893.*

#### RESOLUTION.

READ—

The Annual Report on the working of the Calcutta Shipping Office and of the shipping offices at the outports for the year 1892-93.

The post of Shipping Master at Calcutta was filled by Lieutenant E. W. Petley, R.N., throughout the year. Mr. L. Namey, the Chief Clerk of the office, was the Deputy Shipping Master.

2. Owing to the extension of the Home trade area under Act VI of 1891, the receipts of the Shipping Office show a further falling off, as the several steamers trading to the Straits Settlements now included in the Home trade limits engage and discharge their crew on board instead of through the Shipping Office. The falling off from this cause has, however, been all but counterbalanced by gains in other directions. This result is due to an increase in the number of German steamers trading to Hamburg, whose engine-room crews are composed of natives, and to an increase in the number of steamers belonging to Messrs. Apcar and Company, trading to China, as well as to more numerous arrivals of tramps or vessels that do not trade regularly to this port, but seek for cargo wherever available. The actual receipts amounted to

Rs. 31,450 against Rs. 31,993, while the disbursements were Rs. 21,376 against Rs. 20,318, during the previous year.

3. It is considered that the full effect of Act VI of 1891 has now been realized, and that the financial position of the Shipping Office has attained a condition which, considering the present commercial outlook, will continue.

4. There was a large increase in the transactions of the funds held in trust by the Shipping Office. These trust funds come under three heads, viz., "Ticket money," "Deposit money" and "Estates of deceased seamen."

The funds under "Ticket money" show a slight decrease of Rs. 288, due to a smaller number of seamen having allotted a portion of their wages for the benefit of their families. The cause of this falling off in the number of allotments cannot be readily ascertained, but it is believed to be the result of fewer Asiatics having shipped on sailing vessels during the year.

Under "Deposit money of British seamen" there is an increase of Rs. 27,715, mainly due to the Deputy Shipping Master, during a considerable portion of the year, having made it a condition in sanctioning the discharge of European seamen that they should deposit at the Shipping Office a portion of their wages as security against their falling into distress. This has caused additional work on the Shipping Office, as the money thus deposited is drawn out in small sums. It is doubtful whether any real good is done by this arrangement, and the question is receiving the attention of the Board of Revenue. The total amount deposited was Rs. 61,368, of which Rs. 60,061 represents the voluntary deposits of 419 seamen, the balance, Rs. 1,307, being the wages of 7 seamen, was deposited by masters of vessels on account of seamen who were either too ill in hospital to understand their accounts, or who, being about to be left behind in hospital or jail, refused to sign off the articles of the ships they belonged to.

Under "Deposit money of native seamen" there was a decrease of Rs. 1,840, due to a smaller number of native seamen having been left behind in hospital or jail. These deposits were involuntary and were made on account of 49 seamen.

The funds under "Estates of British seamen" showed an increase of Rs. 5,750, chiefly due to the receipt of some large estates of officers belonging to the British India Steam Navigation Company, who, in addition to wages due to them, had considerable sums deposited in the Bank. These amounts were realized by the Shipping Office and credited to the Board of Trade.

Under "Estates of native seamen" there was an increase of Rs. 2,071, due to a few estates of deceased native seamen of considerable value, which had been accounted for by masters of ships in the United Kingdom and elsewhere having been collected by the Board of Trade and transmitted to the Shipping Office through the Government of India. The increase is also partly attributable to the receipt of the wages of the whole of the native crew of the ship *Danube*, which is reported to have been lost, the amount being entered in the books of the office under the head "Estates of deceased native seamen."

5. The number of seamen of all nationalities shipped and discharged through the Shipping Office was 16,955 and 16,428 respectively, against 17,194 and 16,435 during 1891-92. Particulars as to the nationality of the seamen are given below:—

	1892-93.		1891-92.	
	Shipped.	Discharged.	Shipped.	Discharged.
British ... ..	1,451	1,528	1,474	1,398
Europeans, Continental ..	548	380	441	456
Americans and West Indians	210	198	275	188
Australians...	13	16	14	17
Asiatics other than Indians	351	326	458	341
Indians proper	14,031	13,655	14,234	13,697
Eurasians and Goanese...	351	325	298	338
<b>TOTAL</b>	<b>16,955</b>	<b>16,428</b>	<b>17,194</b>	<b>16,435</b>

The difference between the total number shipped and discharged during the year is not so great as that in the preceding year, the figures being 527 against 759 in the previous year.

6. In addition to the above, the number of seamen of all nationalities shipped on and discharged from foreign vessels through their Consulates were—

Shipped	...	...	...	...	144
Discharged	...	...	...	...	112

7. There has been an increase in the value of money-orders issued by the Shipping Office during the year, compared with the figures of the previous year. The sums remitted during the current year amounted to Rs. 20,305 against Rs. 11,009 during 1891-92. This increase is due to a few exceptionally large orders having been issued during the year, and to the increase in the number of British seamen discharged through the Shipping Office.

8. The health of European crews in British ships continues to be good: 13,580 European seamen visited the port in British ships, of whom 16 died while on the river and 21 in hospital. Of the deaths while on the river, 9 were from drowning, 1 from heat apoplexy, and 6 from cholera. There was one case of scurvy on board the ship *John Davie* brought to the notice of the Shipping Master, but no action was taken, as the seaman admitted that he had contracted the disease previously on board a steamer: the attack was of a mild form. On inspection it was found that the provisions and water on board were good, and that lime-juice was served out regularly.

9. The health of native crews is also believed to have been good, but no true statistics can be furnished owing to a very small percentage of the sick entering hospital.

10. The Health Officer of the Port visited 813 in-coming and 684 out-going vessels. Seven cases of scurvy were brought to the notice of the Health Officer, one on board the *Carrizal* and six on board the *Lyndhurst*. They were taken to hospital and discharged cured in from 1 to 36 days. The provisions on board the *Lyndhurst* were examined and found to be good, and the lime-juice up to standard requirements.

11. Two cases of imposition on seamen were reported, and steps were immediately taken by the authorities to inquire into the matter. In both cases sums improperly withheld from seamen were recovered and paid to them.

12. Two complaints were made as to the quality of the food supplied on board ship. In one case three of the crew of the *Leyland Brothers* produced samples of the bread issued to them. As these samples appeared unfit for human consumption, they were sent to the Health Officer of the Port, who held a formal survey on board and condemned the bread. The master was thereupon directed to issue no more of the condemned bread, and to ship immediately a fresh supply. In February last four of the crew of the *Ancyra* complained of the quality and short issue of the provisions on board that vessel, but on enquiry the complaint proved groundless. A seacunny on board the S.S. *Dictator* complained of having been assaulted at Colombo by the second mate. As the complainant admitted that the assault was slight, the mate was simply admonished.

13. The receipts of the Chittagong Shipping Office amounted to Rs. 209, against Rs. 99 in the previous year. The increase is due to a larger number of seamen having been exchanged or transferred to and from ships in port, and to two ships which discharged their whole crews having engaged native crews in place of the Europeans discharged. There were no disbursements.

14. The receipts of the trust funds amounted to Rs. 13,902. Of this sum Rs. 12,986 were on account of deposit money of British seamen, made up as follows:—Rs. 4,727 deposited by masters as representing the wages of 23 seamen left behind in hospital or jail, and Rs. 8,259 deposited voluntarily by 60 British seamen. The deposits from native seamen were all voluntary, and amounted to Rs. 641 from 18 men.

15. The number of seamen shipped and discharged were 86 and 111, against 17 and 50 during the previous year. In 23 cases the seamen were discharged owing to their being in jail, and on this point the Shipping Master at Chittagong writes:—

“The increase of 22 men under the head ‘in jail’ may be attributed chiefly to the action of the Calcutta Shipping Office in prohibiting seamen discharged at Chittagong being sent on to Calcutta in search of employment. Consequently the men under reference, in failing to effect exchange of ships at this port, and persistently refusing to go to sea in their own vessels, had

therefore, under section 83, clause 2 or 5 of Act I of 1859, to be sentenced to terms of imprisonment which necessitated their discharge from their ships at Chittagong; and as under the jail rules offenders sentenced to more than a month's imprisonment are forwarded to the Presidency Jail to complete their terms of imprisonment, it follows that by violation of the law the men in question actually succeeded in gaining their object of getting clear of their ships, and of being sent to Calcutta at the state expense and not at their own, as they otherwise would have gone. I would also mention, regarding this subject, the rule is that no seaman goes to Calcutta in search of employment without at least Rs. 50 to take on arrival, the money being remitted by me to the Shipping Master, Calcutta, and in place of any seaman so sent to Calcutta, another man, who probably was penniless in Calcutta, is sent to Chittagong to replace him; the action of the Calcutta Shipping Office is *a priori* difficult to comprehend. Nor is this all; for, under the jail rules, seamen forwarded to Calcutta to complete sentences of imprisonment go in charge of a European policeman, and the state has as well to bear the cost of his passage to and from Calcutta."

The Board of Revenue are in communication with the Shipping Master, Calcutta, and the Inspector-General of Jails, Bengal, and a further report has been promised.

16. During the year 100 ships were visited by the Shipping Master to enquire into the health of the crews, to inspect provisions, drinking-water, medical stores, and fore-castle accommodations, and to enquire into accidents and casualties on board. The results are said to have been generally satisfactory. The health of the shipping was bad in the early, and good in the latter, part of the year, and there were no cases of scurvy or disease arising from bad or insufficient food.

17. The admissions into hospital amounted to 37 against 41 in the previous year. There were actually 7 cases of cholera in the port, 4 of which terminated fatally, against 5 out of 10 during the previous year.

18. Hospital port dues were re-imposed on the shipping from 1st May 1893, and a provisional hospital for seamen of all races was started preparatory to the erection of a new combined hospital at this port.

19. The duties of Shipping Master at Chittagong were performed by Mr. E. Good from 9th June 1891 to 4th November 1892, during the absence on furlough of Mr. Warden, the permanent incumbent, who resumed charge of the office on the 5th November 1892.

20. At the Orissa ports, including Balasore and Puri, the number of seamen shipped and discharged amounted to 3 and 17 against 2 and 1 during the previous year. Of those discharged, 16 proceeded to Calcutta. The attention of the Commissioner of the Orissa Division has been drawn to the large number of discharges in the ports under his jurisdiction, and he has been directed to instruct the officers exercising the powers of a Shipping Master not to grant discharges unless on good grounds, as the result is to swell the number of unemployed seamen in Calcutta.

By order of the Lieutenant-Governor of Bengal,

C. W. ODLING,  
*Secretary to the Govt. of Bengal.*

**RESOLUTION ON THE REPORT ON THE ADMINISTRATION OF THE  
INCOME-TAX IN BENGAL FOR THE YEAR 1892-93.**

**FINANCIAL DEPARTMENT—SEPARATE REVENUE.**

*Darjeeling, the 9th September 1892.*

**RESOLUTION—No. 4348S.R.**

**READ—**

The Report of the Board of Revenue on the financial results of the administration of the Income-tax for the year 1892-93.

1. The principal administrative change that took place in the working of the Income-tax Act, II of 1886, during the year, was the amalgamation, for the purposes of income-tax administration only, of the district of Hooghly with that of Howrah, of the district of Bankura with that of Birbhum, and of the district of Manbhum with that of Singhbhum. This reform, introduced in accordance with the suggestion made in paragraph 10 of the Resolution on the Income-tax report for 1891-92, was carried out shortly before the end of the year under review. The result will be an annual saving of Rs. 3,948. Regulations were laid down by the Board with the approval of Government for the appointment and promotion of Assessors, which will, it is hoped, yield good results. In December 1892 the Calcutta Income-tax Office was removed to the new building in Dalhousie Square, and the separate Income-tax sub-treasury was abolished in consequence.

2. The following statement compares the financial results of the income-tax during the last two years:—

	1891-92.	1892-93.
	Persons.	Persons.
Number of persons finally assessed, including Government servants, who pay through the Accountant-General ... ..	111,160	111,858
Number of persons originally assessed, excluding Government servants ... ..	105,967	106,142
Number of persons finally assessed, excluding Government servants ... ..	103,176	103,894
Number of assesses, including Government servants, who paid the tax within the year	107,878	108,818
	Rs.	Rs.
Final demand of tax for the year, excluding that paid by Government servants and interest on securities ... ..	36,82,269	36,97,623
Final demand of tax for the year, including that paid by Government servants and interest on securities ... ..	41,54,738	41,73,554
Final demand of tax for the year, including penalties, fines, and arrears of previous years	45,30,877	44,50,299
Collections of tax within the year, excluding Accountant-General's collections ... ..	35,58,330	35,84,774
Collections of tax within the year, including Accountant-General's collections ... ..	40,20,843	40,60,705
Actual receipts, including advance and excess payments and after adjustments ... ..	43,06,720	42,25,366
Charges ... ..	1,86,959	1,80,171
Percentage of charges ... ..	43	43
Net revenue ... ..	41,19,761	40,45,195

The net revenue shows a decrease of Rs. 74,566 or 1·8 per cent., as against an increase of 1·5 per cent. in the preceding year. Including advance payments and excess collections, and making allowance for various adjustments, the actual receipts at the close of the year amounted to Rs. 42,25,366 in the year under report, and to Rs. 43,06,720 in the previous year: the decrease is in the collection of the arrear demand. The receipts on account of the current

9. The Board have reproduced the statement, which shows for the year under report and for previous years the distribution of the tax as between Calcutta and the rest of the province:—

YEARS.	Act imposing tax.	NUMBER OF PERSONS ASSESSED IN—			AMOUNT OF TAX REALIZED IN—		
		Calcutta.	Rest of province.	Total of columns 3 and 4.	Calcutta.	Rest of province.	Total of columns 6 and 7.
1	2	3	4	5	6	7	8
1860-61 ...	Income-tax Act XXXII of 1860 ...	*	241,207	241,207	Rs. 30,60,061	Rs. 31,70,428	Rs. 62,30,489
1861-62 ...	Ditto ditto ...	*	214,471	244,471	17,83,600	40,64,945	58,52,445
1862-63 ...	Ditto ditto ...	*	61,740	61,740	17,09,743	31,30,844	48,40,587
1863-64 ...	Ditto ditto ...	*	87,879	57,879	11,32,588	22,50,818	33,82,401
1864-65 ...	Ditto ditto ...	*	51,367	51,367	11,47,062	20,00,435	31,47,497
1867-68 ...	Licence Acts XXI and XXIX of 1867 ...	23,337	100,040	123,372	4,66,280	10,79,255	15,45,541
1868-69 ...	Certificate Tax Act IX of 1868 ...	10,224	51,161	63,985	5,30,338	8,71,077	14,14,015
1869-70 ...	Income-tax Acts IX and XXIII of 1869 and XVI of 1870 ...	22,728	142,342	165,070	12,20,455	20,26,180	32,46,644
1870-71 ...	Ditto ditto ...	*	97,831	97,831	21,21,525	42,00,175	63,20,700
1871-72 ...	Income-tax Act XII of 1871 ...	7,137	43,068	51,465	6,87,755	13,32,435	20,40,190
1872-73 ...	Ditto VIII of 1872 ...	4	27,398	27,398	6,04,187	9,52,110	15,56,297
1873-74 ...	Licence-tax Act I (B.C.) of 1873 ...	31,801	808,708	840,507	3,36,331	23,30,422	26,66,753
1874-75 ...	Ditto ditto ...	22,127	718,095	740,132	3,00,692	15,57,090	18,57,782
1875-76 ...	Ditto II (B.C.) of 1875 ...	8,132	63,414	71,556	4,11,200	10,73,602	14,84,802
1876-77 ...	Ditto ditto ...	7,973	60,900	68,873	4,12,200	10,26,865	14,39,065
1877-78 ...	Ditto ditto ...	8,131	61,407	69,538	4,01,000	10,25,650	14,26,650
1878-79 ...	Ditto ditto ...	8,673	62,620	71,293	4,13,670	10,39,072	14,52,742
1879-80 ...	Ditto ditto ...	8,673	61,631	70,260	4,04,570	10,27,426	14,31,996
1880-81 ...	Ditto ditto ...	8,794	61,088	69,882	4,12,545	10,16,577	14,29,122
1881-82 ...	Income-tax Act II of 1881 ...	21,110	77,131	98,241	17,05,885	16,78,796	33,84,681
1882-83 ...	Ditto ditto ...	20,941	70,207	91,148	14,24,012	16,06,332	30,30,344
1883-84 ...	Ditto ditto ...	22,128	79,279	101,407	15,91,280	16,08,314	31,99,594
1884-85 ...	Ditto ditto ...	22,555	70,710	93,265	16,95,163	17,41,574	34,36,737
1885-86 ...	Ditto ditto ...	22,650	80,823	103,473	17,11,574	17,76,061	34,87,635
1886-87 ...	Ditto ditto ...	21,904	81,274	103,178	17,20,966	18,37,364	35,58,330
1887-88 ...	Ditto ditto ...	21,386	82,508	103,894	17,21,605	18,63,079	35,84,684

\* Figure not available.

† Exclusive of the tax on salaries, &c., recovered by the Accountant-General and the tax on the interest of Government securities.

From these figures it will be seen that during the year 1892-93 as much as Rs. 17,21,695, or 48 per cent. of the whole collections, were contributed by Calcutta, and Rs. 18,63,079, or 52 per cent., by the rest of the province.

10. The following statement exhibits the main facts in connection with the coercive measures which had to be taken for the realization of the tax:—

YEAR.	Number of persons finally assessed.	DISTRESS WARRANTS.		CASES OF DISTRAINT.		CASES OF SALE.	
		Number.	Percentage to column 2.	Number.	Percentage to column 2.	Number.	Percentage to column 2.
1	2	3	4	5	6	7	8
1891-92 ...	103,176	6,450	6.2	2,329	2.2	333	.3
1892-93 ...	103,804	6,559	6.3	2,480	2.4	362	.3

In Khulna, Singhbhum, Muzaffarpur, Darbhanga, 24-Parganas, Jessore, Purnea, and Hooghly, the proportion of warrants issued exceeded 10 per cent. of the number of persons assessed. It is noticeable that in six of these districts (namely in 24-Parganas, Darbhanga, Khulna, Singhbhum, Purnea, and Muzaffarpur) the collections were below 95 per cent., which fact tends to show either that the low percentage of collections was due rather to the unwillingness of the assesses to pay than to neglect on the part of the collecting officers, or else that the work of collection was not commenced sufficiently early, and that therefore coercive measures had to be undertaken to a large extent at the end of the year.

11. Under section 9(2) of the Income-tax Act, a small commission is allowed to managers of companies or other employers of labour who will collect the tax from their employes on behalf of Government. The total amount of tax collected in this manner was Rs. 2,47,918, as against Rs. 2,52,448 in the previous year, and the number of companies, &c., who undertook to collect the tax fell from 340 to 324 in the year under report. The largest decrease was 29 in Darjeeling, which is said to have been due to the fact that previously in

several cases managers had been allowed to pay in their tax under this section and claim commission, although they were the only assesses in the concern. The continued decrease in the number of persons making use of this section seems to corroborate the suggestion that employers, especially natives, do not consider the remuneration offered sufficient reward for the trouble of collecting the tax.

12. The total expenditure for the year, including the cost of contingencies and the remissions under Rule 13 of the Bengal Government rules, amounted to Rs. 1,80,171, against Rs. 1,86,959 in the previous year. In view of the remarks in paragraph 10 of last year's Resolution on the subject of travelling allowance, the further increase of expenditure in that direction in 1892-93, cannot be regarded with unmixed satisfaction. The Lieutenant-Governor is still of opinion that supervision should be exercised to prevent these charges increasing beyond the point when they cease to give sufficient return for the expenditure to be remunerative to Government. The percentage of cost, excluding contingencies on the total collections, is 4·3, the same for the whole province as in the previous year. In eight districts the cost exceeded 10 per cent., amounting in Singhbhum to the very high percentage of 24·3, and in Palamau to 15·7.

13. The system of payment of income-tax by money-order continued to work satisfactorily. In Saran, in five cases, amounts were remitted by telegraphic money-order. No serious cases of embezzlement were discovered during the year. In one case the prosecution of an assessor for the production of false accounts was ordered, but as the evidence appeared insufficient, the case was allowed to drop. Three persons were convicted for personating assessors and illegally collecting the tax.

14. The names of the Deputy Collectors specially reported by the Board as having done good service will be communicated to the Appointment Department.

The thanks of Government are due to the Board for their supervision of the collection of this tax, which is reported to be no more popular now than it was when first introduced: the people have, however, now become familiarised with it, and the Lieutenant-Governor trusts that even greater attention will be paid by District Officers during the current year to realise the tax with punctuality and system.

By order of the Lieutenant-Governor of Bengal,

J. A. BOURDILLON,

*Offg. Secretary to the Government of Bengal.*

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 9th September, 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL.</b>			
BURDWAN DIV.	1 Burdwan Sept. 9, '93	0.83	Weather—hot and sultry. Rain wanted for the <i>aman</i> crop. Harvest depends upon good rain within next week. Prices of common rice:— Srs. Burdwan ... .. 10 to 13 Kalna ... .. 9 to 12 Katwa ... .. 12½ Raniganj ... .. 12 } per rupee.
	Kalna ...	0.57	
	Katwa ...	0.11	
	Raniganj ...	1.50	
	2 Bankura „ 9, '93	1.46	
	3 Birbhum „ 9, '93	2.02	Weather—seasonable. State and prospects of both early and late rice good. Prices have slightly risen, the supply from the interior to the market having fallen short. Common rice is selling to-day (9th) at 12 seers 8 chitaks per rupee at Bankura and 12 seers at Vishnupur.
	Rampur Hát ...	2.26	
	4 Midnapore „ 9, '93	2.75	Weather—hot and oppressive and certainly seasonable. Prospects continue hopeful, and the rainfall is sufficient. If we can only get rain in October we shall have a 14-anna crop. Prices of common rice:— Srs. Sadar ... .. 11½ Contai ... .. 13 Tamluk ... .. 11 Ghatal ... .. 10 to 12 } per rupee.
	5 Hooghly „ 9, '93	0.81	
	Serampore ...	1.40	
	Jahannabad ...	0.40	
	6 Howrah „ 9, '93	0.80	
PRESIDENCY DIV.	Ulubaria ...	1.40	Weather—hot. State of standing crops fair. Reaping of <i>bhadoi</i> crops still continues in parts. Fodder and water sufficient. Price of rice 10 seers per rupee.
	7 24-Parganas „ 9, '93	0.63	
	8 Nadia „ 9, '93	0.85	
	Kushtia ...	0.59	
	Meherpur ...	1.22	
	Chuadanga ...	0.53	Weather—hot with occasional showers. <i>Aus</i> harvest approaching completion. <i>Aman</i> doing well.
	Ranaghat ...	0.58	
	9 Khulna „ 9, '93	1.36	
	Bagerhat ...	2.65	
	Satkhira ...	0.90	
	10 Jessore „ 9, '93	0.68	Weather—sultry. Harvesting of <i>aus</i> and steeping and extracting of jute nearly over. Prospects of <i>aman</i> fair. Cattle-disease reported from Salikha in Magura and Mahespur in Bangaon subdivision. Fodder and water for cattle sufficient. Prices steady.
	Jhenida ...	1.13	
	Magura ...	0.84	
	Narail ...	4.45	
	Bangaon ...	0.97	
	11 Murehshabad „ 9, '93	2.30	Weather—hot and sultry. Harvesting of <i>bhadoi</i> pulses commenced. Winter rice doing well. Fodder sufficient for cattle. Common rice sells at 11 seers per rupee.



No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL—conold.</b>			
<b>CHITTAGONG DIVN.</b>	12 Chittagong Sept. 9, '93	2.77	Weather—seasonable. Harvesting of <i>aus</i> nearly over. Transplantation of <i>aman</i> still continues. Prospects fair. Condition of cattle generally good. Supply of fodder sufficient.
	13 Noakhali „ 9, '93	0.56	Weather—seasonable. Harvesting of <i>aus</i> nearly finished. Transplantation of <i>aman</i> continues. Prospects fair. Fodder not sufficient. Cattle-disease reported from five thanas. Common rice sells at 8 seers 6 chitaks per rupee.
	14 Tippera „ 9, '93	0.44	Weather—very close; gathering of clouds in the afternoon and more or less foggy mornings. Water subsiding very gradually. More rapid subsidence required for transplantation. Prospects of <i>aman</i> improving, but not altogether satisfactory. Want of fodder still felt. Death of cattle almost stopped. Rice selling at Rs. 4-8 per maund at Comilla, Rs. 4-14 at Chandpur, and Rs. 5 at Brahmanbaria.
	15 Chittagong Hill Tracts. „ 8, '93	0.86	Weather—hot and cloudy. Harvesting of both <i>jum</i> and early plough-paddy ( <i>aus</i> ) continues. No vegetables in the bazar. Condition of cattle generally good. Common rice selling at 7 seers per rupee.
<b>DACCA DIVN.</b>	16 Dacca „ 9, '93	1.51	Weather—hot and cloudy with occasional rain. <i>Kowa</i> and <i>shail</i> paddy being sown. Harvesting of jute going on and that of <i>aus</i> nearly finished. Prospects of <i>aman</i> paddy fair, but it has been submerged in some places. Water subsiding. Common rice selling at from 7 to 10 seers per rupee. Fodder not sufficiently available. No cattle-disease, but they are growing weak for want of fodder and accommodation owing to high floods.
	17 Faridpur „ 9, '93	2.56	Weather—hot. River water has begun to rise again slowly. <i>Aman</i> and sugarcane said to be improving, but otherwise conditions unchanged. Common rice sells at 9 seers per rupee. In the Goulundo and Sadar subdivisions there is sufficiency of fodder. Some cattle-disease in thana Palong of the Madaripur subdivision.
	Goalundo „	1.74	
	Madaripur „	0.72	
	18 Backergunge „ 9, '93	3.92	Weather—seasonable. State and prospects of crops fair. Common rice sells at from 8 to 10 seers per rupee. Fodder and water sufficient.
	Pirojpur „	2.03	
	Patuakhali „	2.79	
	Bhola „	5.64	
	19 Mymensingh „ 9, '93	2.59	Weather—fair and hot. The flood is subsiding. Transplantation of <i>aman</i> paddy is pushed on vigorously. Prospects of standing <i>rowa</i> paddy appear to be fair. Common rice selling at 8 to 9 seers per rupee. Fodder reported not sufficiently available in Netrakona, Kishorganj, and Tangail. Condition of cattle good.
	20 Dinajpur „ 9, '93	2.03	Weather—fine with occasional showers. <i>Aus</i> crop is being still harvested. Transplantation of <i>aman</i> is nearly finished. Prospects fair. Price of rice both at Sadar and Thakurgaon stationary. Condition of cattle good. Fodder and drinking water sufficient.
	Thakurgaon „	2.82	
	21 Rajshahi „ 9, '93	0.15	Weather—hot and seasonable. Condition of the standing crops good; we are now getting just the weather suitable for the crops. Water and fodder-supply ample. Condition of cattle good. Price of rice varies from 10 to 13 seers per rupee.
<b>RAJSHAH DIVN.</b>	Nator „	2.93	
	Naugaon „	0.52	
	22 Rangpur „ 9, '93	3.33	Weather—seasonable. The recent rain has been very beneficial. Transplanting of winter paddy almost completed. Prospects favourable. Jute cutting and steeping going on. Price of common rice 10 to 12 seers per rupee.
	Gaibanda „	1.53	
	Kurigaon „	1.15	
	Nilphamari „	3.22	
	23 Bogra „ 9, '93	0.73	Weather—hot and fine. Transplantation of <i>aman</i> is about finished. Jute is nearly all cut. Prospects of <i>aman</i> fair. Common rice sells at 10 seers per rupee. Fodder and water sufficient.
	Sherpur „	0.34	
	Naukhila „	0.52	
	24 Pabna „ 9, '93	1.85	Weather—seasonable; partially cloudy. Harvesting of <i>aus</i> and jute nearly finished. Prospects of <i>aman</i> fair. Common rice sells at Rs. 5 per maund at Sirajganj and 10 seers per rupee at Pabna. Fodder and water-supply sufficient.
	25 Darseling „ 9, '93	6.58	Weather—seasonable. In the hills:— <i>Bhadai</i> paddy and <i>chota marua</i> ripening. Indian corn and potatoes being harvested. <i>Bora marua</i> and <i>aghani</i> paddy progressing favourably. In the Terai:—Jute being cut and steeped. <i>Bhadai</i> being harvested. <i>Haimanti</i> transplanting completed. Prices of coarse rice:—
	Siliguri „	3.09	
			Srs. Hills ... .. 9 } Terai ... .. 10 } per rupee.
	26 Jalpaiguri „ 9, '93	7.75	Weather—hot and cloudy. Harvesting of <i>bhadai</i> paddy almost finished. Transplantation of <i>haimanti</i> paddy still continues. Washing of jute continues. Condition of cattle good. Fodder and water sufficient. Prices of common rice:—
			Srs. Sadar ... .. 11 } Alipur ... .. 9 to 10 } per rupee.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR.</b>			
BHAGALPUR DIV.	27 Moughyr Sept. 9, '93	2.97	Weather—hot and cloudy. Outturn of <i>bhadoi</i> not good. About 50,000 bighas of <i>makai</i> crops are said to have been damaged by the recent flood of the Gandak. Paddy thriving well. Sugar-cane good. Cattle-disease towards Nawadih and Shaikpura. Fodder and water sufficient. Prices of common rice:—
	Begusarai ...	0.81	
	Jamui ...	1.28	
	28 Bhagalpur „ 9, '93	4.88	Weather—hot. General rain towards the end of the week. <i>Bhadoi</i> being harvested and <i>rabi</i> lands ploughed. The rainfall of the week has been beneficial to the winter rice. Price of common rice 13 seers 14 chitake per rupee.
	Bauka ...	2.71	
	Madhipura ...	7.34	
	Supaul ...	3.83	
	29 Purnea „ 9, '93	2.59	Weather—very sultry succeeded by windy and rainy weather. It has again become hot. <i>Bhadoi</i> being cut everywhere; result good. Jute being steeped. Transplantation of <i>aghani</i> finished in Araria, where the recent rain has been very beneficial. In Sadar subdivision it is nearly finished. In Kishanganj, where it had come to a standstill in some parts for want of rain, it is now going on vigorously owing to the recent rainfall. No want of fodder and water for cattle. No cattle-disease. Prices of new <i>bhadoi</i> rice:—
	Kishanganj ...	5.75	
	Araria ...	3.00	
	30 Malda „ 9, '93	1.15	
	31 Sonthal Parganas „ 9, '93	1.55	Weather—occasional showers of rain with hot intervals between. Prospects of <i>aghani</i> paddy very favourable, though a little more rain is required in the high lands. Cultivation of <i>kurthi</i> , <i>urid</i> and <i>surgud</i> going on briskly. Price of rice stationary. Fodder and water sufficient.
	Deoghur ...	1.35	
	Godda ...	1.85	
	Jamtara ...	1.13	
	Pakur ...	0.81	
	Rajmahal ...	0.80	
PATNA DIVISION.	32 Patna „ 9, '93	3.03	Weather—hot with occasional showers. The recent rain has done much good to the rice, which is now all transplanted, but more rain is needed in the Bihar subdivision. The <i>bhadoi</i> crops are practically all reaped with a poor outturn. Prices of common rice:—
	Barh ...	2.60	
	Bihar ...	0.90	
	Dinapore ...	1.38	
	33 Gaya „ 9, '93	3.33	Weather—very warm with occasional rain. Harvesting of <i>bhadoi</i> and transplantation of paddy nearly over. Prospects of latter crop favourable. Common rice sells at from 11 to 15 seers per rupee. Fodder and water-supply ample.
	Aurangabad ...	1.26	
	Jahanabad ...	2.49	
	Nawada ...	1.67	
	34 Shahabad „ 9, '93	4.70	Heavy rain with spells of sunshine. The weather has been all that could be desired, and crop prospects are very good.
	Buxar ...	0.93	
	Bhabhua ...	4.31	
	Sasaram ...	2.64	
	35 Darbhanga „ 9, '93	1.63	Weather—very hot and showers occasionally. Floods gradually disappearing. Retransplanting of rice being pushed on where seedlings are available. The rainfall of the week has greatly benefited the crop. More rain, however, is still wanted in Madhubani subdivision. <i>Aghani</i> rice in places not affected by the flood is doing well. Fodder sufficient.
	Samastipur ...	2.26	
	Madhubani ...	0.39	
	36 Muzaffarpur „ 9, '93	3.11	Weather—hot and cloudy. In Sitamarhi paddy is being retransplanted in places washed away by the flood, where this course is possible. <i>Bhadoi</i> outturn may be expected in Sadar 5 annas, in Hajipur 6½ annas, and in Sitamarhi 6½ annas. Fodder plentiful except in Kutra thana. No disease among cattle.
	Hajipur ...	2.47	
	Sitamarhi ...	0.16	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.																
BIHAR—concl'd.																			
PATNA DIVISION—concl'd.	37 Saran Sept. 9, '93	2.72	Wind changeable; weather bright; occasionally cloudy with passing showers. Appreciable rain fell at Sadar only yesterday (8th) morning. Prospects fairly good on the whole, except that in a small area in thana Manjhi paddy has suffered for want of rain and some area not transplanted for the same want. Prospects go on improving in Gopalganj, and recent rain has done much good to all crops in Siwan subdivision. Water and fodder plentiful. Prices of common rice :—																
	Siwan ...	1.42																	
	Gopalganj ...	1.15																	
			<table><tr><td></td><td></td><td></td><td>Srs. c.</td></tr><tr><td>Chapra</td><td>...</td><td>...</td><td>13 0</td></tr><tr><td>Siwan</td><td>...</td><td>...</td><td>13 10</td></tr><tr><td>Gopalganj</td><td>...</td><td>...</td><td>14 6</td></tr></table> } per rupee.				Srs. c.	Chapra	...	...	13 0	Siwan	...	...	13 10	Gopalganj	...	...	14 6
			Srs. c.																
Chapra	...	...	13 0																
Siwan	...	...	13 10																
Gopalganj	...	...	14 6																
	38 Champaran .. 9. '93	2.15	Weather—much cooler since the rain of the 7th and 8th instant. <i>Saro</i> paddy is being reaped. Prospect of <i>aghani</i> paddy good. Prices stationary. Fodder and water sufficient.																
ORISSA.																			
ORISSA DIVN.	39 Cuttack ...	...	Report not received.																
	40 Puri .. 7, '93	4.54																	
	Khurda ...	5.08																	
	41 Balasore .. 9, '93	6.67	Weather—cloudy with showers. Transplantation nearly finished. No complaint of want of rain. Prospect of a 12-anna crop. Prices have fallen at Balasore.																
CHOTA NAGPUR.																			
South-West Frontier Agency.																			
CHOTA NAGPUR DIVN.	42 Hazaribagh Sept. 9, '93	5.75	Weather—seasonable. Estimated average yield of <i>bhadoi</i> crops 4 annas. Winter rice doing well, and the recent rainfall has improved prospects. Fodder and water abundant. Prices stationary.																
	Giridi ...	2.11																	
	43 Lohardaga .. 9, '93	4.51	Weather—hot and cloudy. Reaping of <i>gora</i> paddy continues. Prospect of winter rice good. Common rice selling at 16 seers per rupee. Fodder and water plentiful.																
	44 Palamau .. 8, '93	2.89	Weather—very oppressive. There has been good rain throughout the district during the week. Prospects of the paddy crop are so far excellent. <i>Gora</i> paddy and <i>gundli</i> being cut. Ploughing has commenced for <i>rabi</i> sowings. <i>Kurthi</i> and <i>til</i> are being sown. Fodder and water plentiful. Rice selling at from 12 seers 6 chitaks to 16 seers 14 chitaks per rupee.																
	45 Singhbhum .. 9, '93	1.93	Weather—seasonable. Crops in excellent condition. <i>Bhadoi</i> crops being harvested; about 14 annas outturn expected. Price of common rice at Chaibassa 16 seers per rupee and 12 seers elsewhere. Cattle-disease reported from Monoharpur thana.																
	46 Manbhum .. 9, '93	3.11	Weather—seasonable and generally very favourable. <i>Gora</i> paddy is being harvested; probable outturn about nine annas. Prospects of winter rice so far good. Prices stationary.																
Gobindpur ...	2.47																		

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 12th September, 1893.

M. FINUCANE,  
Offg. Secy. to the Govt. of Bengal.



The following Statement shows the several Routes followed by the Trade in the Principal Staples of Traffic imported into Calcutta during the month of March, 1893.

## IMPORTS INTO CALCUTTA.

SPECIFICATION OF ROUTES.	FOOD-GRAINS					FIBROUS PRODUCTS		OILSEEDS.		Tea, Indian.	Cotton, raw.	Silk, raw.	SUGAR.		TOBACCO	
	Rice.	Paddy.	Wheat.	Gram and pulses.	Other food-grains.	Jute, raw.	Gunny-bags.	Linseed.	Mustard seed.				Refined.	Un-refined.	Un-manufactured.	Manufactured.
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	No.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
By country boats ...	12,80,086	59,267	5,043	35,675	38	3,01,875	887,579	83,425	20,447	...	7,604	119	5,533	30,421	4,008	64
" river steamers ...	12,514	285	286	4,313	...	2,88,074	...	49,898	29,230	1,437	11,363	82	737	138	263	...
" rail { East Indian Rail- " way. " Eastern Bengal " State Railway.	2,32,119	36,340	1,46,525	2,08,790	16,318	20,700	23,315	1,84,635	2,40,891	1,849	53,235	1,432	930	25,909	5,556	4
" road ...	62,905	409	603	65,264	3,375	2,68,130	1,226,050	1,17,140	58,996	568	6,893	861	1,700	71,804	26,598	...
" sea ...	88,595	5,830	...	18,482	...	38,348	34,900	18,171	35	...	2	...	13,508	18,248	8,790	2,31
" sea ...	76,510	45,970	...	15,307	...	439	40,075	...	4,700	6	81,637	...	15,908	29,818	1,040	71
Grand Total of Imports in March { 1893 ...	17,59,739	1,49,200	1,54,767	4,37,897	10,731	9,20,599	2,172,819	4,53,699	3,58,438	3,379	1,10,765	2,464	40,892	1,09,121	44,368	4,11
" 1892 ...	16,90,450	96,147	3,53,235	3,26,387	19,615	1,06,752	1,668,576	5,17,407	2,88,139	6,604	1,09,239	1,780	43,638	1,66,707	43,339	1,31

The following Statement shows the Values and Quantities of the Principal Staples of Traffic exported Inland from Calcutta during the month of March, 1893.

## EXPORTS FROM CALCUTTA.

Whither exported.	Cotton piece-goods.		Cotton twist.		Salt.	Gunny-bags.	Whither exported	Cotton piece-goods.		Cotton twist.		Salt.	(Gunny-bags)
	European.	Indian.	European.	Indian.				European.	Indian.				
<b>BENGAL.</b>													
	Rs.	Rs.	Mds.	Mds.	Mds.	No.		Rs.	Rs.	Mds.	Mds.	Mds.	%.
Burdwan ...	1,59,408	440	608	1,229	24,302	66,852	CHOTA NAGPUR.						
Birbhum ...	80,000	420	144	752	17,713	83,930	Hazarybagh ...	49,790	2,268	1	403	7,998	10.18
Midnapore ...	2,36,080	...	3,092	...	34,524	20,720	Singbhum ...	4,400	...	...	...	2,725	5.67
Hoochir ...	1,50,000	7,308	1,282	279	1,704	68,821	Manbhum ...	91,884	...	31	1,121	18,398	21.10
24 Parganas ...	1,49,016	2,120	363	4	13,051	136,655	Total of Chota Nagpur	1,49,920	2,268	32	2,047	20,116	30.36
Nadia ...	3,21,404	571	1,633	...	22,025	166,622	Grand Total of supplies into the provinces under the Lieutenant-Governor of Bengal						
Khulna ...	58,030	...	84	...	7,025	840							
Jessore ...	1,17,445	...	873	...	10,790	10,190							
Murshidabad ...	72,364	758	117	64	5,900	27,390		58,52,259	18,724	16,338	11,885	6,79,982	1,071.29
Orissa ...	1,38,100	...	324	...	7,920	19,740	<b>OTHER PROVINCES.</b>						
Rajshahi ...	1,63,548	...	1,3	...	11,663	12,880	Assam ...	4,89,000	...	4,405	42	41,111	36.49
Rangpur ...	2,86,330	...	(89)	...	16,988	3,066	North-Western Provinces and Oudh ...	20,28,924	8,850	3,041	553	45,118	814.10
Hogra ...	1,46,758	...	183	...	7,227	24,493	Punjab ...	8,29,124	81,434	538	323	...	348.39
Pabna ...	88,750	...	329	...	30,614	13,365	Central Provinces ...	88,270	...	293	54	340	511.97
Darjeeling ...	66,350	...	32	...	7,749	3,815	Rajputana and Central India ...	69,950	294	68	12	...	230.61
Jaipur ...	4,81,816	...	2,401	...	57,082	8,265	Beir ...	1,634	...	...	...	...	5.46
Faridpur ...	83,164	...	816	...	2,230	32,030	Nizam's Territory ...	814	...	...	...	...	3,732.50
Backergunge ...	1,55,288	...	185	...	50,300	5,775	Bombay ...	26,830	...	...	...	...	724.81
Mymensingh ...	1,14,350	...	240	...	15,100	2,410	Madras ...	1,16,109	18,370	417	1,410	...	129.00
Tippera ...	1,17,475	...	313	...	4,250	2,970	Pondicherry ...	...	...	...	...	...	3,735.00
Chittagong ...	4,100	...	...	...	5,150	...	Burma ...	3,43,009	730	537	1,519	...	70.15
Noakhali ...	...	...	...	...	...	...	Other places ...	65,608	...	72	11,069	...	8,016.98
Total of Bengal	38,45,637	11,410	14,075	2,942	4,03,307	736,440	Grand Total of 1893	90,31,771	1,30,378	23,446	26,874	7,04,546	10,870.73
							Exports in March 1892	1,24,81,648	70,110	19,190	19,772	6,60,940	14,862.46
<b>BIHAR.</b>													
Patna ...	1,92,672	546	142	453	21,500	129,405	The Sea-borne Trade of Calcutta in these Staples during the month of March 1893, was as follows:—						
Gaya ...	1,22,122	...	...	1,210	12,350	74,080							
Snahabad ...	3,55,080	...	...	625	21,194	33,425							
Muzaffarpur ...	1,68,598	420	...	145	10,000	39,020	<b>IMPORTED INTO CALCUTTA—</b>						
Darbhanga ...	2,52,232	672	...	824	21,705	116,080	From Foreign Ports—	Rs.*	Rs.	Mds.	Mds.	Mds.	No.
Baran ...	2,87,428	294	11	65	11,243	13,265	United Kingdom ...	77,46,437	...	11,994	...	6,10,869	...
Champana ...	2,87,428	2,652	7	429	11,243	11,375	Other Foreign ports ...	40,570	...	656	...	3,11,454	44.71
Monabir ...	91,808	42	3	800	23,316	50,170	Total of Foreign Trade ...	77,87,007	...	12,654	...	8,31,323	44.71
Patna ...	1,76,210	126	117	626	26,082	102,340	From Indian Ports—	92,242	3,00,130	...	13,005	46,132	...
Purnea ...	2,21,050	...	57	470	16,207	45,810	Bombay ...	...	23,166	...	7	10,328	1.2
Malda ...	6,400	...	...	...	6,400	1,390	Other Ports in Madras ...	...	...	...	...	...	...
Nonthal Parganas ...	1,78,012	294	171	536	17,446	82,460	Burma ...	57,610	5,350	...	...	...	...
Total of Bihar	22,83,050	5,046	508	6,181	2,20,562	697,790	Other Indian ports ...	...	...	...	...	...	...
<b>ORISSA.</b>													
Cuttack ...	6,700	...	73	671	...	10,490	Total of Inter-port Trade ...	1,40,782	4,20,840	7	14,000	56,460	1.2
Balasore ...	70,052	...	805	690	20,997	109,050	Grand Total of 1893	79,36,780	1,20,640	12,661	18,007	4,87,740	48.0
Total of Orissa	83,652	...	878	1,371	20,997	210,100	Imports in March 1892	1,21,14,531	1,47,816	14,463	9,053	7,21,451	44.6
* As per tariff declaration value.													

The following Statement shows the several Routes followed by the Trade in the Principal Staples of Traffic exported from Calcutta during the month of March, 1893.

SPECIFICATION OF ROUTES.	COTTON PIECE-GOODS		COTTON TWIST.		Salt.	Gunny-bags.
	European.	Indian.	European.	Indian.		
	Rs.	Rs.	Mds.	Mds.	Mds.	No.
By country boats ...	1,64,110	5,900	2,139	...	2,84,681	256,60
" river steamers ...	4,06,514	141	7,317	120	58,115	63,49
" rail { East Indian Railway " Eastern Bengal State Railway	57,53,623	1,01,564	1,064	11,200	3,78,011	2,07,34
" road ...	25,43,324	...	8,578	...	82,38	30,193
" sea ...	2,09,510	3,415	660	195	4,608	3,67
" sea ...	7,77,801	19,123	2,229	15,299	23,811	16,518,98
Grand Total of Exports in March { 1893 ...	16,34,771	1,30,378	25,840	26,874	7,60,100	19,870,73
" 1892 ...	1,24,81,648	70,110	19,480	19,772	6,60,940	14,862,46

## STATEMENT SHOWING THE STOCKS OF RICE IN AND AROUND CALCUTTA.

NAME OF MARE.	STOCK IN HAND AS COMPILED OF—									
	1st week of Sept. 1892.	1st week of Oct. 1892.	1st week of Nov. 1892.	1st week of Dec. 1892.	1st week of Jan. 1893.	1st week of Feb. 1893.	1st week of March 1893.	1st week of April 1893.	1st week of May 1893.	1st week of June 1893.
Balkhata	Mds. 6,74,000	Mds. 4,94,500	Mds. 4,25,000	Mds. 3,16,000	Mds. 2,34,000	Mds. 6,19,000	Mds. 13,31,000	Mds. 11,73,000	Mds. 10,31,000	Mds. 8,56,000
Kildaners	" " "	" " "	" " "	" " "	" " "	" " "	" " "	" " "	" " "	" " "
Chitnur, Golabara, Kamar-toli, Rakhola, and Culpi Ghat.	" " "	" " "	" " "	" " "	" " "	" " "	" " "	" " "	" " "	" " "
Patheriahatia, Posta, and Jorabagan.	" " "	" " "	" " "	" " "	" " "	" " "	" " "	" " "	" " "	" " "
Tollymore, Chella, Kidderpore, and Muzibpur.	" " "	" " "	" " "	" " "	" " "	" " "	" " "	" " "	" " "	" " "
21 Minor bazars (estimated) ...	" " "	" " "	" " "	" " "	" " "	" " "	" " "	" " "	" " "	" " "
Other retail shops, 3,129 in number (estimated).	" " "	" " "	" " "	" " "	" " "	" " "	" " "	" " "	" " "	" " "
Haidyabati, Newaband, Bhadrachwar, and Chandernagore.	" " "	" " "	" " "	" " "	" " "	" " "	" " "	" " "	" " "	" " "
Total	20,37,720	17,45,408	10,35,825	14,57,137	16,08,751	18,07,000	20,80,280	23,13,463	27,42,619	26,61,777
On Railway premises on both sides of the river.	11,536 (on 3rd Sept. 1892.)	17,216 (on 3rd Oct. 1892.)	9,774 (on 3rd Nov. 1892.)	9,457 (on 3rd Dec. 1892.)	35,889 (on 3rd Jan. 1893.)	32,791 (on 3rd Feb. 1893.)	23,643 (on 3rd March 1893.)	23,773 (on 3rd April 1893.)	10,834 (on 3rd May 1893.)	11,512 (on 3rd June 1893.)
On boats un-laden ...	11,536 (on 3rd Sept. 1892.)	17,216 (on 3rd Oct. 1892.)	9,774 (on 3rd Nov. 1892.)	9,457 (on 3rd Dec. 1892.)	35,889 (on 3rd Jan. 1893.)	32,791 (on 3rd Feb. 1893.)	23,643 (on 3rd March 1893.)	23,773 (on 3rd April 1893.)	10,834 (on 3rd May 1893.)	11,512 (on 3rd June 1893.)
On boats un-laden ...	11,536 (on 3rd Sept. 1892.)	17,216 (on 3rd Oct. 1892.)	9,774 (on 3rd Nov. 1892.)	9,457 (on 3rd Dec. 1892.)	35,889 (on 3rd Jan. 1893.)	32,791 (on 3rd Feb. 1893.)	23,643 (on 3rd March 1893.)	23,773 (on 3rd April 1893.)	10,834 (on 3rd May 1893.)	11,512 (on 3rd June 1893.)
Grand total of Stocks	20,84,565	18,14,899	10,74,993	15,66,873	19,22,447	20,61,921	23,53,796	24,90,746	29,09,109	27,90,605
Probable stock available for exportation by sea.	10½ lakhs	7½ lakhs	6½ lakhs	5 lakhs	7½ lakhs	10 lakhs	13 lakhs	13½ lakhs	14½ lakhs	13½ lakhs

STATISTICAL DEPARTMENT,  
The 11th September, 1893.

M. FINUCANE,  
Offg. Secy. to the Govt. of Bengal.

**Abstract of the results of Meteorological Observations taken at the Alipore Observatory in the month of August 1893.**

			Inches.	Date.	Hour.
The mean pressure of the month	...	...	29.602		
The average pressure of August from 24 years' registers	...	...	29.598		
The highest pressure in the month	...	...	29.769	19th	10
The lowest pressure in the month	...	...	29.406	7th	16
The range of pressure	..	...	0.363		
			Hours.		
The total number of hours of bright sunshine during the month			114.9		
The maximum possible number of hours of sunshine	...		398.4		
			°		
The mean temperature of the month	...	...	83.1		
The average temperature of August from 24 years' registers	...	...	83.1		
The highest temperature in the month	...	...	91.6	14th.	
The lowest temperature in the month	...	...	76.4	9th.	
The range of temperature during the month	...	...	15.2		
The mean daily range of temperature	...	...	9.1		
The greatest range of temperature in one day	...	...	13.2	16th.	
			Per cent.		
The mean humidity of the month	...	...	87		
The average humidity of August from 24 years' registers	...	...	86		
			Inches.		
The mean vapour tension of the month	...	...	0.988		
The average vapour tension of August from 9 years' registers	...	...	1.002		
The mean cloud proportion of the month	...	...	8.07		
The average cloud proportion of August from 16 years' registers	...	...	8.04		
The total rainfall of the month	...	...	8.37		
The total rainfall indicated by a Beckley's self-registering rain-gauge (mouth of the gauge about 52 feet above the ground)	...	...	8.19		
The average fall of August from 48 years' registers	...	...	13.94		
The greatest fall in 24 hours	..	...	1.79	31st.	
			Days.		
The number of rainy days in the month	...	...	22		
The average number of rainy days in August from 24 years' registers	...	...	25		
			°		
The mean maximum equilibrium temperature of solar radiation during the month	...	...	143.3		
The mean difference of sun and air temperatures	...	...	55.6		
The greatest sun temperature	...	...	154.8	22nd and 27th.	
The greatest excess of sun over air temperature	...	...	67.2	27th.	
The mean temperature of the nocturnal radiation thermometer on woollen cloth	...	...	77.0		
The mean depression of the nocturnal radiation thermometer below the minimum air temperature at 4 feet above the ground	...	...	1.9		
The greatest depression of the nocturnal radiation thermometer below the minimum air temperature	...	...	3.1	12th, 18th & 21st.	
			Miles.		
The mean movement of the wind per day	...	...	107.1		
The greatest movement of the wind in one day	...	...	291.0	10th.	
The greatest movement of the wind in one hour	...	...	19.0	9th, noon to 1 P.M.	
The number of hours with winds from each of the 8 points—					
N. 11, N.E. 5, E. 139, S.E. 219, S. 81, S.W. 175, W. 51, N.W. 5, Calm 58.					

The results of observations at the Alipore Observatory are not rigorously comparable with the registers of past years (at the Park Street Observatory). The barometer is about 3 feet higher at Alipore, and, other things being equal, reads therefore .003 lower. The diurnal range of temperature is also greater at Alipore, and the mean temperature apparently about 0.6° higher; and, finally, the thermometer which furnished the record of temperature at the Surveyor-General's Office during 20 years and upwards is found to read 0.6 higher than the Kew standard thermometer, which is the standard of reference at the present Observatory.

J. H. GILLILAND,

METEOROLOGICAL OFFICE, INDIA;  
Calcutta, the 11th September 1893.

*For Meteorological Reporter to the Govt. of India.*

## Meteorological Report of the Province of

METEOROLOGICAL DIVISION.	DISTRICT.	Representative stations.	STATION OBSERVATIONS.														
			AIR PRESSURE.					WIND.		TEMPERATURE.						HUMIDITY.	
			Highest, 8 A.M., barometer reading.	Lowest, 8 A.M., barometer reading.	Mean, 8 A.M., reduced to 32°.	Mean reduced to sea-level and constant gravity, lat. 45°.	Variation from normal mean.	Mean direction at 8 A.M.	Mean velocity in miles daily.	Highest of month.	Lowest of month.	Mean daily maximum temperature.	Mean daily minimum temperature.	Mean daily temperature.	Variation from normal mean.	Mean, 8 A.M., humidity.	Variation from normal mean.
ORISSA.	Puri	Puri	29.760	29.488	29.630	29.591	—	S79°W	179	94.7	71.1	80.3	79.4	84.4	—	84	—
		Gopalpur	29.706	29.509	29.644	29.615	+0.06	N77°W	327	93.2	72.3	87.4	77.5	82.5	—0.7	87	—
		False Point	29.740	29.463	29.637	29.600	—0.01	S60°W	259	92.5	70.6	88.0	79.1	83.6	+1.0	86	—3
SOUTH-WEST BENGAL.	Cuttack	Cuttack	29.070	29.412	29.564	29.587	—0.09	S00°W	79	80.2	76.8	89.0	78.3	83.6	—0.2	80	—2
		Balasore	29.604	29.437	29.585	29.587	—0.02	S27°W	105	91.4	76.7	87.8	78.2	83.0	+0.8	91	—
		Midnapore	29.630	29.339	29.509	29.604	+0.02	S68°E	60	83.3	78.1	80.2	78.3	83.8	+0.8	87	—
SOUTH-WEST BENGAL.	24-Parganas	Calcutta	29.708	29.430	29.657	29.604	+0.11	S37°E	104	91.6	76.2	87.6	78.8	83.2	+0.6	88	—1
		Saugor Island	29.740	29.467	29.633	29.601	+0.06	S3°E	346	90.7	77.5	87.9	80.0	84.0	+0.6	91	0
		Howrah	29.740	29.469	29.610	29.605	+0.20	S39°E	126	92.3	76.2	89.2	78.8	84.0	+1.0	84	—
SOUTH-WEST BENGAL.	Hooghly	Krishnagar	29.741	29.407	29.637	29.617	+0.08	S30°E	100	92.0	75.9	88.9	79.2	84.0	+0.8	91	+1
		Jessore	29.695	29.422	29.555	29.610	+0.17	S24°E	59	92.1	77.2	89.1	79.7	84.4	+0.4	86	—1
		Burdwan	29.455	29.173	29.321	29.603	+0.18	S31°E	71	95.7	73.9	91.4	77.4	84.4	+1.3	89	—
SOUTH-WEST BENGAL.	Bankura	Bankura	29.446	29.194	29.320	29.577	+0.02	S61°E	81	93.1	74.0	88.6	78.0	83.3	+0.7	80	—
		Birbhum	29.723	29.462	29.594	29.600	+0.08	S50°E	86	91.7	76.3	88.1	79.5	83.8	+0.3	92	+4
		Murshidabad	29.764	29.530	29.650	29.626	0	S45°E	96	90.1	74.7	85.9	78.7	82.3	—0.6	92	—
SOUTH-WEST BENGAL.	Pabna	Sirajganj	29.781	29.506	29.603	29.615	+0.01	S50°E	79	92.2	74.2	87.7	77.3	82.5	—0.5	89	—
		Bogra	29.715	29.471	29.598	29.607	+0.18	S64°E	131	91.6	74.1	87.8	77.9	82.9	+0.2	88	—
		Rajshahi	29.706	29.465	29.583	29.601	+0.03	S51°E	73	92.6	76.9	89.4	79.8	84.6	+0.2	89	—
SOUTH-WEST BENGAL.	Malda	Dinajpur	29.636	29.447	29.540	29.625	+0.15	S50°E	57	94.1	75.7	88.0	79.2	83.9	+0.6	90	—
		Rangpur	29.693	29.468	29.586	29.633	+0.12	S42°E	45	94.3	74.7	88.5	78.3	83.4	+0.2	90	—
		Jalpaiguri	29.535	29.306	29.407	29.644	+0.32	N50°E	65	93.4	72.6	88.3	79.6	82.4	+0.4	90	—
SOUTH-WEST BENGAL.	Kuch Bihār	Darjeeling	29.726	29.421	29.573	—	+0.12	N84°E	84	73.6	64.1	85.7	87.2	61.4	—0.1	96	+3
		Ghatagong	29.756	29.548	29.640	29.674	+0.03	S40°E	104	89.2	74.1	86.9	76.6	81.2	+0.6	90	0
		Chittagong	29.756	29.548	29.640	29.674	+0.03	S40°E	104	89.2	74.1	86.9	76.6	81.2	+0.6	90	0
SOUTH-WEST BENGAL.	Chittagong Hill Tracts	Demagri	29.708	29.547	29.607	29.625	+0.15	S13°E	98	91.8	75.9	87.7	78.6	83.2	+1.8	89	—
		Backergunge	29.761	29.523	29.653	29.643	—0.04	S45°E	181	89.5	74.8	86.7	77.4	81.6	+0.5	92	—
		Noakhali	29.782	29.524	29.653	29.647	+0.10	S31°E	98	89.5	76.4	86.1	79.6	82.9	+0.4	90	—
SOUTH-WEST BENGAL.	Faridpur	Faridpur	29.770	29.537	29.653	29.625	—0.02	S36°E	108	91.1	75.7	87.5	79.3	83.4	+0.1	90	—1
		Dacca	29.780	29.555	29.668	29.661	+0.05	S00°E	129	91.8	74.8	87.5	77.1	82.3	+0.7	94	—
		Tippera	29.748	29.534	29.631	29.641	—0.01	S42°E	103	92.7	74.6	86.3	77.8	82.1	—0.4	91	—
SOUTH-WEST BENGAL.	Mymensingh	Mymensingh	29.645	29.435	29.539	29.610	+0.11	S77°E	36	93.2	76.2	89.0	79.5	84.2	+0.5	89	+1
		Purnea	29.613	29.369	29.481	29.593	+0.15	S30°E	49	92.7	76.0	89.4	78.4	83.9	+0.2	88	—
		Bhagalpur	29.618	29.374	29.480	29.598	0	S82°E	129	92.0	76.7	88.1	80.0	84.0	+0.2	88	+2
SOUTH-WEST BENGAL.	Darbhanga	Muzaffarpur	29.530	29.339	29.437	29.567	—	S67°E	115	91.7	76.2	88.5	79.3	83.9	—	90	—
		Champaran	29.540	29.293	29.406	29.585	0	N79°E	119	94.2	74.9	89.9	79.3	84.1	+0.5	86	—
		Saran	29.585	29.355	29.459	29.591	+0.27	S07°E	128	94.3	76.6	89.9	79.2	84.6	+1.0	86	—
SOUTH-WEST BENGAL.	Shahabad	Dohri	29.376	29.165	29.278	29.580	0	S39°E	151	98.4	75.6	89.6	78.7	84.2	+1.6	82	—
		Buxar	29.508	29.245	29.331	29.583	+0.07	N81°E	159	92.3	75.8	89.4	78.5	84.0	+0.4	88	—
		Arrah	29.662	29.327	29.434	29.574	+0.13	S84°E	55	94.4	76.5	89.9	79.7	85.3	+1.2	87	—
SOUTH-WEST BENGAL.	Gaya	Gaya	29.305	29.128	29.234	29.560	+0.02	N88°E	133	96.5	76.8	91.3	78.9	85.1	+0.8	80	+4
		Patna	29.583	29.342	29.461	29.585	—0.04	S60°E	143	92.5	73.2	89.3	79.5	84.4	—0.1	83	—2
		Monghyr	29.583	29.342	29.461	29.585	—0.04	S60°E	143	92.5	73.2	89.3	79.5	84.4	—0.1	83	—2
SOUTH-WEST BENGAL.	South Parganas	Naya Dumka	29.281	29.020	29.154	29.596	+0.14	S40°E	79	92.1	75.8	88.4	77.7	83.1	+0.6	85	—
		Hazaribagh	27.765	27.530	27.658	29.596	+0.14	S2°E	210	89.2	70.3	84.7	72.4	78.5	+0.5	87	+1
		Lohardaga	27.637	27.339	27.532	29.596	+0.08	S2°W	185	88.5	69.4	83.2	72.0	77.6	+0.3	90	—
SOUTH-WEST BENGAL.	Palamau	Daltanjanj	29.035	28.798	28.909	29.597	—	S2°E	87	93.8	78.0	89.1	77.3	83.2	—	79	—
		Singbhum	28.988	28.720	28.872	29.570	+0.07	S11°E	28	93.4	74.2	88.4	79.7	82.6	+0.4	87	—
		Manbhum	29.486	29.207	29.443	29.590	+0.20	S89°W	36	95.1	73.5	87.5	78.0	82.8	—1.1	94	+3
SOUTH-WEST BENGAL.	Sibbargarh	Sibbargarh	29.041	28.766	29.561	29.587	+0.05	N89°E	118	89.7	73.8	85.2	77.8	81.5	—1.0	92	—1
		Gonipara	29.733	29.534	29.632	29.678	+0.06	S89°E	8	99.9	74.3	87.7	76.8	82.4	—0.5	93	+1
		Oachar	29.733	29.534	29.632	29.678	+0.06	S89°E	8	99.9	74.3	87.7	76.8	82.4	—0.5	93	+1

Observations not received.



Bengal for the month of August 1893.

DISTRICT OBSERVATIONS.														DISTRICT.		
CLOUD.		Rainfall.	RAINFALL													
Mean cloud amount, 8 A. M.	Variation from normal mean, 8 A. M.		Of month.					Since 10th May 1893.								
			Mean of district.	Normal mean.	Variation from mean.	Number of rainy days.	Normal mean number of rainy days.	Mean of district.	Normal mean.	Variation.	Mean number of rainy days.	Normal mean number of rainy days.				
6.5 4.2 7.7	— —0.8 —	12.70 9.12 5.12	16.06	11.88	+5.78	14.25	15.66	46.83	34.20	+12.63	30.25	41.70	Puri.			
6.7	—0.7	16.40		11.03			15.10		34.03			45.20	Outtaok.			
4.9	—	10.82		11.41			15.50		35.31			44.30	Balasore.			
5.4	—	8.02	15.20	13.87	+1.33	14.25	15.20	53.30	38.60	+14.70	46.50	44.45	Midnapore.			
8.7 9.6	—0.1 +1.3	8.37 16.02	9.07	13.22	—4.15	13.00	17.40	49.05	39.15	+10.50	47.96	51.31	24-Parganas.			
			5.86	12.80	—7.03	14.00	18.16	47.60	37.67	+9.93	40.00	52.24	Howrah.			
			7.67	13.43	—5.76	15.00	17.29	46.52	37.05	+9.17	50.86	50.00	Hooghly.			
7.9	—	7.52	7.24	12.03	—4.79	14.00	15.17	46.88	35.36	+11.52	53.60	47.00	Nadia.			
			12.07	12.35	+0.82	15.33	16.95	56.36	41.38	+14.08	57.67	55.15	Khulna.			
7.6	—1.4	7.47	8.08	11.72	—3.64	14.60	16.26	40.32	30.95	+3.37	54.40	49.07	Jessore.			
8.3 2.8	—0.3 —	4.56 6.46	5.03	12.48	—6.85	11.50	15.76	41.10	35.00	+5.90	44.00	45.70	Burdwan.			
7.6	—	10.75	8.87	18.73	—4.86	13.25	17.34	47.03	39.37	+8.56	51.25	50.83	Bankura.			
			6.70	12.04	—6.24	15.67	16.74	39.60	38.31	+1.38	55.01	48.84	Birbhum.			
8.8	—0.4	10.87	8.60	11.88	—3.08	14.17	15.68	47.74	34.97	+12.77	56.24	46.07	Murshidabad.			
9.1	—	11.56	11.00	12.00	—0.40	14.50	14.93	58.73	37.42	+21.31	59.00	48.07	Fabna.			
6.3	—	14.49	12.24	11.03	+0.61	14.75	15.12	48.91	41.06	+7.35	57.50	48.47	Sogra.			
6.0	—	10.52	10.91	10.99	—0.08	15.67	15.70	51.51	37.27	+14.24	53.33	47.61	Rajahm.			
5.8	—	8.37	7.87	12.02	—4.15	12.50	14.83	39.06	38.64	+1.32	58.50	45.62	Malda.			
8.5	—	11.56	9.80	11.72	—1.02	11.00	16.07	40.43	41.58	+7.85	58.40	48.35	Dinajpur.			
4.8	—	12.37	11.72	12.07	—0.35	11.00	15.74	63.02	54.45	+8.57	57.00	52.87	Rangpur.			
7.6	—	26.21	26.77	24.94	+1.83	20.00	18.80	84.74	66.46	—1.72	68.00	64.08	Jaipaluri.			
			17.56	21.83	—4.33	14.50	17.11	87.63	81.82	+5.80	64.76	61.91	Kuch Bihar.			
9.3 9.1 7.6	+0.4 — —0.3	26.98 31.46 21.74	24.93	27.15	+7.78	24.50	22.08	103.01	97.90	+5.01	78.50	73.28	Darjeeling.			
			22.29	23.45	—1.16	18.00	19.60	112.14	89.11	+23.03	71.00	64.00	Sikkim.			
			17.83	18.44	—0.61	22.00	22.15	87.26	60.65	+26.71	82.00	69.50	Chittagong.			
9.4	—	11.31	11.09	15.61	—3.02	17.75	20.10	67.07	56.52	+10.55	67.25	64.04	Chittagong Hill Tracts.			
4.2	—	22.41	20.17	24.67	+4.50	22.50	22.12	97.99	79.70	+18.29	78.00	67.11	Backergunge.			
7.3	—	10.40	10.26	12.08	—1.82	14.00	16.10	63.08	40.60	+12.48	54.67	52.16	Noakhali.			
8.6	+0.4	14.07	11.62	13.11	—1.49	13.00	17.43	45.43	44.37	+1.06	54.26	54.78	Faridpur.			
7.2	—	10.75	14.85	15.97	—1.12	15.50	18.36	59.40	50.50	+8.99	60.00	58.17	Dacca.			
8.1	—	16.02	18.97	12.88	+5.09	16.40	17.33	73.49	49.03	+23.86	63.00	56.26	Tippera.			
4.7	—2.8	10.93	13.57	14.77	—1.20	14.00	16.14	55.94	46.82	+9.12	51.08	47.00	Mymensingh.			
7.3	—	6.38	7.81	11.35	—3.54	10.00	14.00	31.95	32.72	+2.23	42.00	41.63	Furree.			
6.7	+0.8	11.85	10.34	10.75	—0.41	11.00	13.28	31.65	31.65		36.45	36.45	Bhawalpur.			
6.0	—	8.80	8.08	10.08	—1.40	12.00	12.59	32.06	30.22	+2.74	41.34	35.32	Darbhanga.			
6.2	—	10.17		11.94			12.10		32.08			34.02	Muzaffarpur.			
8.6	—	7.02	8.90	10.29	—1.30	10.00	12.31	28.57	28.08	—1.41	41.34	34.97	Champaran.			
3.4 6.8 9.4	— — —	6.51 7.37 6.66		11.51			13.28		28.94			33.84	Shahabad.			
5.6	—2.4	5.31	7.15	11.73	—4.58	11.00	13.24	33.59	30.01	+1.08	42.75	35.47	Gaya.			
8.3	+0.6	8.07		10.48			12.45		30.02			35.18	Patna.			
			10.16	11.35	—1.19	10.00	13.53	40.70	31.31	+9.30	43.33	33.88	Monghyr.			
4.8	—	14.13	9.09	11.92	—2.23	11.50	16.04	44.06	36.04	+8.00	52.60	47.35	Sonthal Pargana.			
9.8 4.2 8.4 8.5	+0.2 — — —	9.24 9.45 8.41 10.06	9.33 10.74 8.41 10.98	13.58 14.76 11.56 13.83	—4.26 —4.22 —3.75 —3.17	13.60 13.50 13.00 17.00	17.88 16.76 16.30 17.30	35.52 32.56 41.13 52.42	36.79 31.21 38.82 34.88	—8.45 +1.36 +2.31 +17.54	50.00 46.00 53.00 57.00	49.68 52.43 45.53 40.37	Basaribagh. Luhardaga. Palamau. Singbhum. Manbhum.			
7.0 8.8 9.6	—1.1 +1.2 +1.1	18.25 12.77 27.52		13.20	—2.08	16.50	16.88					48.01	Sibargar. Gopalpara. Cachar.			

### Table of Rainfall recorded at stations

Meteorological division.	District.	Station.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
OCEAN	Puri	Puri	0.76	0.85	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Khurda	0.43	0.70	1.82	0.03	0.27	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Banpur	0.80	0.80	...	...	0.05	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		False Point	0.92	0.02	0.08	...	0.08	0.02	0.11	1.02	0.38	0.04	...	...	...	...	...	...	...	...	...	...
		Gop	0.90	...	...	...	...	0.50	0.05	...	...	...	...	...	...	...	...	...	...	...	...	...
		Satpara	0.90	0.50	1.00	...	...	1.15	0.10	0.10	...	...	...	...	...	...	...	...	...	...	...	...
		Pipli	0.50	0.87	0.23	...	...	0.07	0.31	0.80	0.08	0.04	0.23	0.35	1.42	...	...	...	...	...	...	...
		Bahupur	0.80	0.68	0.35	...	...	0.05	0.80	0.91	0.03	...	...	0.30	0.51	0.34	...	...	...	...	...	...
		Kurmala	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Jagatsingpur	0.45	0.01	0.80	0.30	...	...	1.33	1.62	0.03	...	...	0.15	...	...	...	...	...	...	...	...
		Banki	0.78	2.56	0.12	...	...	...	0.16	2.41	...	0.12	0.22	0.04	...	...	...	...	...	...	...	...
		Outtaok	3.25	0.06	3.50	...	...	...	...	2.41	0.08	...	...	0.11	0.07	...	...	...	...	...	...	...
		Kendrapara	0.54	0.20	0.20	...	...	...	...	0.24	...	...	...	...	...	...	...	...	...	...	...	...
		Jaipur	0.14	0.04	0.61	...	...	...	0.21	1.19	0.18	0.13	0.40	0.20	0.00	...	1.80	0.54	0.17	0.70	0.27	...
		Dharmasalla	...	1.05	...	...	...	1.00	...	...	...	...	...	...	...	...	0.30	...	...	...	...	...
		Salipore	0.40	0.60	1.88	...	...	...	...	1.70	...	...	...	...	...	...	...	...	...	...	...	...
		Pal Lahara	1.30	3.00	0.12	...	0.03	...	3.00	3.46	2.00	...	...	...	...	...	...	...	...	...	...	...
		Nayagarh	...	1.88	...	...	...	...	1.03	...	...	...	...	...	...	...	...	...	...	...	...	...
		Akhyapada	0.25	...	0.90	...	...	...	0.17	0.37	0.50	...	...	0.77	...	...	...	...	...	...	...	...
		Chandali	1.05	...	1.20	0.10	1.30	...	0.03	0.50	0.70	...	...	0.65	...	1.21	...	...	...	...	...	...
		Bhadrak	1.55	0.10	0.03	...	...	...	...	0.50	0.50	...	...	1.10	0.10	...	...	...	...	...	...	...
		Nori	...	...	...	...	...	...	0.15	0.10	0.50	...	...	...	...	...	...	...	...	...	...	...
		Balasore	1.38	0.21	...	0.04	...	0.45	0.45	1.08	0.24	0.48	2.92	0.06	1.78	...	...	...	...	...	...	...
		Jallasore	0.72	0.35	0.06	0.06	...	...	...	0.30	0.17	0.11	...	...	...	...	...	...	...	...	...	...
		Baripada	0.15	0.14	...	...	0.73	0.22	1.30	0.18	...	...	...	...	...	...	...	...	...	...	...	...
SOUTH-WEST BENGAL	Midnap																					

1 Bengal in August 1893.

[illegible]

Table of Rainfall recorded at Stations

Meteorological Division.	District.	Station.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
NORTH BENGAL —continued.	Malda	Malda	0.04	0.35	0.55	...	...	0.05	0.22	1.24	1.00	2.00	0.08	0.35	...	...	...	...	...	...	0.49	...
		Chancha	0.22	0.07	...	0.12	...	0.07	...	1.40	...	0.86	2.16	0.33	...	...	0.40	...	...	...	...	...
		Gajol	0.11	...	0.14	0.25	...	0.05	...	0.02	0.15	0.46	2.21	0.50	...	...	...	...	...	...	...	...
		Sibganj	...	0.10	1.73	0.10	...	...	0.20	0.98	0.31	0.60	3.98	0.41	...	...	...	...	...	...	0.21	1.14
	Dinajpur	Mohadebpur	0.05	0.13	...	0.37	...	...	...	0.17	...	1.30	2.00	...	...	...	0.18	...	...	0.23	0.06	...
		Churamon	...	0.09	...	0.53	...	...	0.06	0.62	0.45	1.04	1.98	0.23	...	...	...	...	...	...	...	...
		Raiganj	...	0.38	0.18	0.80	...	...	...	0.70	1.05	1.00	3.00	...	0.10	...	0.30	...	...	...	...	...
		Dinajpur	0.04	0.16	0.12	0.27	...	...	0.04	2.03	2.81	1.63	1.92	1.20	...	...	...	...	0.11	...	...	...
	Rangpur	Baloorchat	...	0.14	0.12	0.22	...	...	...	0.70	3.42	2.64	0.53	0.42	...	...	...	...	...	...	0.09	...
		Thakurgaon	...	...	...	...	0.21	0.08	...	1.19	4.30	2.02	3.45	0.73	...	0.38	...	...	...	...	1.31	...
		Bhawaniganj (Gyabanda)	...	0.09	0.21	0.30	...	...	0.07	0.10	1.03	2.36	1.43	3.04	0.23	0.17	0.16	...	...	...	...	0.03
		Rangpur	...	...	...	0.58	...	0.22	...	0.00	1.41	4.39	1.81	0.26	1.08	0.14	0.04	...	...	...	...	0.10
	Jaipalguri	Peergunge	...	0.30	0.39	0.50	...	0.01	0.09	0.08	1.63	2.06	1.22	0.70	0.21	0.80	0.08	...	...	...	...	...
		Kuriganj	...	0.02	...	0.40	0.49	...	...	0.15	2.02	4.20	2.21	0.31	1.51	0.05	0.08	...	...	...	...	...
		Gobindgunj	0.33	0.20	0.32	0.76	...	...	0.08	0.06	1.08	0.50	0.55	3.70	0.87	0.93	...	...	...	...	...	...
		Bagdogra (Nilphamari)	...	...	0.19	0.07	0.15	...	...	0.03	1.29	4.54	1.33	1.17	1.03	0.53	...	...	...	...	...	...
	Kuch Bihar	Ulupur	...	...	...	...	...	...	...	0.14	0.75	4.35	0.88	0.94	1.45	0.04	0.25	...	...	...	...	...
		Sunderganj	...	...	0.19	0.37	...	...	...	0.25	0.57	3.05	1.11	1.12	0.90	0.06	...	...	...	...	...	...
		Jaipalguri	0.13	0.33	0.50	...	1.47	0.01	...	0.15	1.10	3.87	4.50	5.48	1.92	0.08	1.08	0.15	...	...	...	0.79
		Atipora Duar	1.22	...	...	...	0.37	...	...	0.30	0.68	4.00	3.74	2.23	...	0.80	4.70	...	...	...	...	...
	Darjeeling	Falacolla	0.15	...	0.05	...	0.55	...	...	0.53	0.30	3.80	1.19	1.60	2.80	...	...	...	...	...	...	...
		Dehiganj	...	...	...	...	...	...	...	0.03	0.67	3.77	0.32	3.16	0.88	...	0.30	...	...	...	...	...
		Bhagatpur (Nagrakutta)	1.43	0.37	0.45	0.11	0.62	0.21	...	0.13	0.29	1.37	3.78	5.24	5.24	4.45	7.83	0.07	...	...	0.10	1.49
		Dumhatta	...	0.02	0.43	0.05	...	...	0.09	1.88	0.87	2.20	3.16	0.07	0.94	0.02	2.27	0.01	...	0.26	0.03	0.01
	British Bhutan	Kuch Bihar	0.30	...	...	...	0.05	...	0.06	1.67	1.09	2.70	2.32	1.12	3.15	0.41	1.60	...	...	...	...	0.28
		Muckliganj	0.15	0.26	0.10	...	0.59	...	...	0.34	0.06	3.33	1.09	2.19	1.24	0.15	1.16	...	...	...	...	...
		Mathabhanga	0.10	0.11	...	...	...	...	...	0.04	0.80	5.35	3.02	2.24	2.43	0.21	2.47	...	...	...	...	0.03
		Buxa	0.27	0.32	0.43	0.01	2.04	0.37	...	0.54	0.65	3.06	3.65	8.25	4.50	2.24	11.07	0.06	...	0.57	3.93	0.06
EAST BENGAL	Chittagong	Silikuri	0.14	0.40	0.25	0.02	0.83	...	...	0.10	0.40	2.48	2.14	3.60	1.84	0.16	0.18	0.30	...	0.57	0.14	0.05
		Darjeeling	1.12	0.27	1.00	0.12	0.20	0.76	0.15	1.78	5.50	3.38	1.59	2.32	1.05	0.07	0.11	0.14	...	0.10	1.48	0.14
		Kalimping	0.08	0.63	2.40	0.02	...	0.09	0.19	1.41	0.87	2.42	0.44	0.69	1.01	0.29	0.31	0.07	...	0.04	0.10	...
		Mongpoo	0.46	0.91	1.24	...	0.17	...	0.14	1.23	2.84	3.75	3.76	3.20	0.55	0.46	0.14	...	0.23	0.24	0.18	0.15
	Sikkim	Kurseong	0.78	0.42	1.15	0.33	0.08	0.43	...	1.20	6.04	4.08	2.55	2.40	2.14	0.19	0.64	...	...	0.10	2.97	...
		Pedong	1.78	0.87	1.62	0.53	0.33	0.26	0.55	0.47	1.02	2.93	1.63	1.19	1.10	0.23	2.70	0.13	...	0.27	0.05	...
		Gantong	0.73	0.58	0.40	0.88	0.14	1.42	0.85	0.69	2.05	3.08	1.82	1.62	1.72	0.83	2.74	0.60	0.24	0.50	0.80	0.10
		Chittagong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chittagong Hill Tracts	Cox's Bazar	4.82	1.88	1.23	1.44	1.02	0.05	0.01	1.80	2.50	0.08	0.12	0.84	1.25	0.70	0.02	...	0.11	0.09	0.08	0.02
		Chittagong	0.43	0.41	...	0.62	3.26	...	...	0.05	4.04	1.24	1.21	1.76	1.26	4.52	0.04	0.14	1.13	1.07	0.17	0.05
		Kutubdia	1.40	0.90	0.02	0.05	0.05	...	0.30	0.40	5.20	0.42	0.07	0.79	0.08	0.44	...	0.14	0.14	...	0.21	...
		Sakanga	0.77	...	0.16	0.16	2.01	...	...	0.23	1.98	0.63	0.32	1.80	0.25	0.74	0.08	0.12	0.18	0.23	0.42	...
	Baekergunge	Kodala	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Penos	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Mirrarai	0.06	0.08	0.01	0.70	4.07	0.02	...	0.50	6.02	5.19	2.46	1.55	0.98	0.70	...	1.06	2.20	4.23	...	...
		Chandpore	0.45	0.12	0.22	0.09	3.02	0.16	0.20	0.53	0.45	0.01	0.79	0.78	...	1.90	0.12	0.75	2.09	1.88	0.06	...
	Faridpur	Bahramat	0.07	...	0.17	2.30	0.41	0.26	0.46	0.84	0.68	0.27	2.75	0.91	...	0.89	...	0.21	0.24	1.71	0.76	0.02
		Randahar	0.18	...	0.04	0.02	1.88	0.26	0.36	0.14	2.14	0.81	0.24	1.64	0.44	0.72	1.82	0.20	0.81	0.04	0.32	...
		Domagiri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Pasukhali	2.20	0.75	0.45	...	0.35	0.18	0.11	0.65	1.05	2.00	1.11	0.11	0.41	...	0.06	...	0.12	0.05	0.10	...
	Dacca	Pirojpur	1.42	0.50	0.24	0.59	1.60	...	...	0.69	1.64	1.83	0.58	0.90	0.25	...	...	...	...	...	...	...
		Barisal	0.32	1.55	0.32	0.07	0.03	...	0.03	0.64	2.63	0.89	1.87	0.93	0.75	0.42	0.17	...	...	...	...	...
		Gournadi	0.10	0.45	0.55	0.45	...	...	0.37	0.45	2.42	1.45	0.80	1.71	0.30	...	...	...	...	...	...	...
		Shola	0.39	1.57	0.27	...	0.08	0.84	0.98	0.04	1.73	1.45	0.88	...	0.33	1.12	...	...	...	...	...	...
	Hill Tippera	Doulakhan	0.50	1.82	1.15	0.06	0.29	...	0.30	1.34	4.11	1.02	1.80	...	...	...	0.54	1.80	0.34	0.12	...	...
		Banphal	0.72	1.20	0.50	...	0.40	...	0.80	1.20	1.00	0.61	0.80	0.12	...	...	...	...	...	...	...	...
		Noakhali	0.68	0.52	1.42	0.32	0.47	0.28	0.10	2.50	2.01	2.82	2.53	0.02	0.04	0.90	...	...	0.30	0.42	0.26	...
		Feany	0.25	0.25	0.20	0.50	0.17	0.10	...	3.79	3.75	8.45	5.10	0.73	0.50	1.95	0.20	...	...	1.50	2.45	0.63
	Tippera	Harishpur	0.50	0.68	1.07	1.29	0.83	0.04	...	3.21	6.42	1.83	0.87	2.08	0.15	1.03	...	0.11	3.09	2.31	1.14	0.43
		Kamganj	0.50	0.47	0.39	0.05	0.03	...	0.33	1.69	1.58	1.44	1.39	0.24	0.95	...	...	...	...	0.81	...	...
		Madaripur	...	0.09	0.33	...	...	...	...	0.35	3.55	0.52	0.13	2.45	0.81	...	...	...	...	...	...	...
		Fardpur	0.11	0.03	1.75	0.44	...	0.04	0.03	0.30	1.45	1.22	1.15	1.33	0.19	0.64	...	...	...	...	...	...
	Myrmensalgh	Gonlundo	...	0.30	0.32	0.44	0.15	0.20	0.25	...	1.41	0.50	1.25	0.30	...	0.20	...	1.12	...	1.18	...	0.56
		Munshiganj	0.22	0.16	0.08	0.26	...	...	...	1.06	0.60	1.35	0.75	1.27	0.60	0.05	...	...	0.15	0.02	0.02	...
		Dacca	0.03	0.19	2.32	0.04	...	...	0.30	0.25	4.32	1.50	1.30	2.05	0.48	...	0.37	0.11	...	0.03	...	...
		Narainanj	0.16	0.12	1.02	0.17	...	0.04	0.19	0.53	5.34	0.92	0.79	0.74	0.46	0.03	...	...	0.12	...	0.02	...
	Hill Tippera	Manikganj	0.01	0.09	1.42	0.04	0.30	...	0.01	0.08	1.09	0.45	1.04	0.32	0.76	0.07	...	...	0.02	...	...	...
		Joydebpur	0.01	0.15	2.23	0.45	...	1.17	0.08	0.52	2.69	3.60	1.40	0.56	0.58	0.46						

in Bengal in August 1893—continued.

21	22	23	24	25	26	27	28	29	30	31	Number of rainy days.	Average number of rainy days.	Total rainfall for the month.	Average rainfall for the month.	Heaviest rainfall during the month.	Total rainfall from 16th May to 31st August 1893.	Average rainfall from 16th May to 31st August.	Station.	District.	Meteorological division.
0.08	...	0.28	0.10	...	...	0.10	...	0.01	0.22	0.01	13	14.25	8.37	9.96	9.96	43.23	84.99	Malda	Malda	NORTH BENGAL—contd.
...	...	0.38	...	...	...	0.23	0.10	0.22	...	0.03	12	15.31	7.37	14.90	2.15	34.98	42.37	Chanchal.		
...	0.03	1.10	0.06	...	...	0.13	0.03	...	0.19	...	11	...	6.08	?	2.31	...	...	Gajol.		
...	...	0.48	0.34	...	...	0.88	0.09	...	0.03	14	...	...	11.17	?	3.96	47.71	?	Sikganj.		
...	...	1.12	0.16	...	...	0.08	...	0.11	...	10	10.25	6.09	13.54	2.00	43.70	41.45	...	Mohadabpur.	Dinajpur.	
...	0.80	0.35	...	...	...	...	0.75	...	...	13	15.61	9.08	10.55	1.96	46.24	37.43	...	Ohramon.		
0.01	0.08	...	...	...	0.01	...	0.38	...	0.53	0.02	12	16.23	11.36	12.17	2.31	47.38	43.07	Haiganj.		
0.13	3.07	0.52	...	...	...	...	...	0.24	0.19	...	13	16.29	13.40	9.02	3.42	53.02	30.00	Dinalpur.		
...	0.94	0.27	...	...	...	...	...	...	...	11	...	...	15.25	?	4.36	72.89	...	Balcooghat.		
...	...	0.38	0.01	...	...	...	...	0.24	...	1.15	13	13.16	11.20	10.23	3.04	56.88	43.63	Thakurgaon.		
...	0.85	0.46	...	...	...	...	0.94	...	...	...	11	13.10	12.37	12.06	4.39	56.73	54.80	Bhawanijanj (Gyaband).	Rangpur.	
...	0.07	0.63	0.21	...	0.02	...	...	0.04	...	0.03	12	...	9.67	2.90	?	...	...	Rangpur.		
...	...	0.11	...	...	...	...	...	...	...	...	9	12.00	11.55	11.07	4.20	77.18	55.79	Peerganj.		
...	...	0.87	...	...	...	...	0.05	0.51	...	1.00	13	...	13.34	...	3.70	54.27	...	Karigram.		
...	0.18	0.44	...	...	0.04	...	...	...	...	0.28	11	10.71	11.78	14.02	4.54	61.32	63.82	Gobindgunj.		
...	...	0.30	...	...	...	...	...	...	...	...	8	?	0.10	?	4.35	40.01	?	Haridpur.		
...	0.30	...	...	...	...	...	...	...	...	...	9	...	8.40	?	2.65	...	...	Nilphamari.		
0.50	0.02	0.20	0.04	0.07	0.85	0.96	0.72	0.28	0.03	1.39	20	18.80	96.77	24.94	5.44	84.74	86.40	Ulipur.		
3.84	...	...	...	...	...	...	0.45	...	...	0.35	12	?	22.73	?	1.70	91.89	?	Sundergunge.		
4.95	...	...	...	...	...	...	0.20	0.10	0.35	0.25	15	?	18.88	?	4.96	84.50	?	Jaipaguri.		
0.13	0.50	0.18	...	...	...	0.80	0.50	...	...	...	11	?	11.34	?	3.77	76.26	?	Alipore Duar.	Malda.	
3.15	0.55	...	2.25	0.38	2.34	1.97	0.06	3.40	3.05	3.22	25	?	33.15	?	7.83	154.80	?	Palacotta.		
1.00	0.37	0.59	...	...	...	...	...	...	...	...	14	15.58	15.82	17.51	3.16	80.27	70.50	Debaganj.		
1.92	0.11	0.50	0.04	...	...	...	...	...	...	...	14	...	17.00	17.50	21.45	3.15	84.93	...	Shagatpur (Nagrakatta).	Knob Bihar.
3.00	0.03	0.67	...	...	0.38	0.70	0.35	0.20	...	0.03	17	17.72	15.10	24.57	3.33	77.44	81.38	Dinhatia.		
3.10	...	0.45	0.06	...	0.25	...	...	...	...	...	13	18.96	21.20	23.76	5.35	101.67	86.39	Kuch Bihar.		
1.51	0.41	...	0.55	0.14	0.08	1.21	2.80	8.10	3.20	1.61	25	22.85	62.38	42.05	8.25	170.70	148.42	Matahanga.		
2.54	...	0.46	0.54	...	0.18	0.88	0.04	2.91	0.61	1.08	23	20.43	23.42	22.33	5.04	90.92	89.04	Buxa.	Darjeeling.	
0.02	0.34	0.12	0.82	0.42	1.29	0.55	0.17	0.07	0.20	0.14	29	23.90	26.08	25.45	5.50	80.85	83.93	Siliguri.		
0.20	0.04	0.05	2.81	...	0.06	0.76	0.55	1.04	2.47	0.18	21	21.14	22.06	18.75	2.81	73.18	70.24	Darjeeling.		
0.43	...	0.33	1.63	0.47	0.06	0.73	0.50	0.50	1.62	0.30	27	?	26.80	?	3.76	...	...	Kalimpong.		
0.25	0.07	...	1.30	0.79	2.51	1.72	3.00	1.00	0.15	0.10	24	?	40.48	?	6.94	116.11	?	Mongpo.		
0.10	0.35	0.02	1.00	0.02	1.27	1.63	0.53	0.91	1.47	1.18	24	?	24.58	?	2.99	66.76	?	Kurseong.		
0.09	0.67	0.65	0.41	0.13	0.88	1.63	1.30	0.91	0.83	1.92	30	?	21.26	?	3.08	...	...	Pedong.	British Bhuta.	
0.16	0.44	0.10	...	...	0.03	...	0.10	0.04	0.18	...	18	20.05	20.03	27.13	4.83	132.75	108.70	Gnatong.	Sikkim.	EAST BENGAL.
0.13	0.05	0.07	0.04	0.03	0.06	0.20	...	1.00	...	0.05	18	19.15	24.34	19.77	4.59	102.50	71.44	Cox's Bazar.	Chittagong.	
0.27	0.21	0.37	...	...	0.43	0.04	0.01	0.50	...	...	10	?	11.63	?	2.01	89.74	?	Chittagong.		
0.43	0.17	0.08	...	...	0.32	0.40	...	...	...	...	...	...	...	...	...	...	...	Kutubdia.		
1.55	0.10	...	...	...	...	0.03	0.10	...	...	...	...	...	...	...	...	...	...	Satkanya.		
0.29	0.09	0.01	0.04	0.00	0.36	0.41	0.32	0.20	0.03	...	...	...	...	...	...	...	...	Kodala.		
0.12	0.01	0.06	0.16	0.30	...	0.37	0.09	0.02	0.23	...	...	...	...	...	...	...	...	Fenca.		
0.49	...	0.05	0.28	0.14	0.05	1.45	0.44	0.07	...	...	23	22.15	17.83	18.44	2.73	87.86	60.55	Mirsaral.		
0.18	0.52	0.05	...	0.05	0.33	0.97	0.06	0.21	0.09	0.04	22	?	16.22	?	2.14	...	...	Chandpora.		
0.45	1.05	0.06	0.12	0.03	0.41	0.23	0.14	0.04	0.56	0.42	23	20.94	14.21	17.05	2.90	73.95	65.28	Bandarban.	Chittagong Hill Tracts.	
0.35	0.22	...	0.06	...	0.13	...	0.20	0.00	0.16	...	15	18.30	10.03	14.78	1.83	63.81	50.40	Demagiri.		
...	...	0.15	...	...	0.16	0.15	0.32	0.14	...	...	15	19.15	10.14	12.41	2.03	61.60	48.52	Patuakhali.		
...	...	0.09	...	...	0.19	...	...	...	0.30	0.01	15	...	10.41	?	2.42	90.48	?	Pirojpur.		
0.72	...	0.61	0.12	0.53	0.16	0.21	0.55	...	0.17	...	19	22.00	12.38	18.23	1.78	64.88	61.80	Barisal.		
...	...	0.41	...	...	0.10	...	...	...	...	...	15	?	10.53	?	1.90	68.21	?	Gournadai.		
0.01	0.09	0.03	0.07	1.30	1.18	0.05	1.67	0.42	0.80	0.70	21	22.15	22.41	25.33	2.91	88.38	79.91	Bhola.		
1.15	0.25	...	0.50	0.48	1.90	0.35	...	...	0.10	0.24	24	22.08	23.41	24.01	8.46	107.58	79.03	Daulatkhani.		
0.25	0.37	0.03	...	1.80	0.11	...	0.17	1.23	0.04	...	21	?	31.50	?	1.58	...	...	Naokhali.		
...	0.32	0.18	0.06	...	0.41	0.13	0.31	0.16	0.43	...	18	?	11.46	?	6.42	61.80	?	Fenny.		
...	...	0.09	0.08	...	0.71	...	0.33	0.14	0.04	...	11	17.23	11.62	12.25	2.55	49.32	...	Haridpur.		
...	...	0.06	0.13	...	0.03	...	0.03	0.36	0.88	...	14	15.05	10.40	12.57	1.75	57.53	41.86	Rangaj.		
...	...	0.33	...	0.20	...	...	...	...	0.18	...	17	15.16	8.71	11.37	1.41	59.40	41.70	Madaripur.	Faridpur.	
0.05	...	0.09	0.08	0.23	0.02	...	0.62	0.22	...	...	14	14.17	14.80	14.88	0.80	42.99	38.74	Faridpur.		
0.08	...	0.12	0.11	0.06	...	0.05	0.06	0.06	...	...	13	18.50	13.03	12.06	4.12	50.81	50.59	Gaulundo.		
...	0.04	0.05	0.07	0.11	0.08	0.04	0.19	0.16	0.04	...	15	17.09	11.43	13.46	5.34	44.14	43.13	Munshiganj.		
...	0.01	0.11	...	0.13	...	0.07	0.32	0.04	...	...	10	16.06	6.32	11.53	1.42	43.78	40.63	Narsinganj.		
0.23	0.05	2.03	0.07	0.13	...	0.12	0.25	0.41	0.15	...	20	?	17.12	?	3.00	52.76	37.04	Manikganj.		
0.44	...	...	0.14	0.70	0.27	0.59	...	...	...	...	18	17.44	12.68	13.32	2.12	57.13	43.05	Joydebpur.		
1.39	0.10	0.10	0.02	1.84	0.15	0.12	0.30	0.05	...	...	18	18.06	17.09	17.05	3.50	68.55	58.10	Agartola.	Hill Tippera.	
0.29	...	0.30	...	1.90	1.70	...	0.34	0.14	0.24	...	18	21.87	12.56	20.23	1.90	53.02	56.51	Chandpur.		
1.00	0.05	...	0.80	...	2.12	...	...	...	...	...	10	16.25	17.12	12.67	6.82	50.22	43.59	Brahmanbaria.		
...	...	...	0.81	0.02	...	...	...	0.05	...	...	7	?	8.13	?	2.30	30.03	?	Kamachandra-pur.		
...	0.50	...	...	0.35	1.35	2.05	...	0.15	...	...	13	?	20.29	?	3.95	...	...	Nasirnagar.		
...	...	...	0.25	0.10	...	0.80	...	0.26	0.50	...	14	?	12.72	?	2.50	...	...	Daudkandi.		
0.09	...	...	0.18	0.50	...	...	...	...	...	...	...	...	?	?	?	...	...	Kasba.		
...	...	...	...	1.00	0.75	...	...	0.50	1.16	...	18	?	15.31	?	2.00	...	...	Laksham.		
1.23	...	0.47	0.09	3.16	0.69	1.32	0.35	...	0.08	...	17	16.50	24.44	13.18	4.18	80.16	49.90	Kishoreganj.		
...	...	1.08	...	...	...	...	...	...	...	...	12	14.55	10.14	12.01	1.07	59.02	33.50	Atia (Tangali).		
0.52	...	0.05	0.02	0.53	0.16	0.03	0.16	0.03	0.02	...	19	19.20	16.							

Table of Rainfall recorded at Stations

Meteorological division.	District.	Station.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
NORTH BIHAR —sonid.	Darbhanga	Tajpur	...	...	0.25	0.30	...	...	...	0.32	...	2.00	1.55	1.70	...	...	...	0.90	...	...	...	...
		Darbhanga	...	...	0.28	...	...	0.16	0.30	0.30	0.08	1.53	2.22	2.35	0.07	...	...	0.56	...	...	0.07	...
		Madhubani	0.92	0.02	0.37	...	...	0.11	0.02	...	1.77	0.90	2.49	2.93	0.10	...	...	...	...	...	...	...
		Bahera	...	...	0.88	...	...	...	0.27	...	1.24	1.50	1.20	...	...	...	...	...	...	...	...	...
		Sitamarhi	...	0.14	0.24	...	...	...	0.07	0.08	1.65	2.24	0.06	0.30	0.50	...	...	...	...	...	...	...
	Muzaffarpur	Muzaffarpur	...	...	0.41	...	...	0.41	0.10	0.05	0.95	1.34	1.47	0.98	0.02	...	...	0.08	...	1.45	2.10	...
		Hajipur	...	...	0.55	0.05	0.01	...	0.35	0.09	0.25	1.45	2.27	0.30	...	...	...	0.12	...	...	0.09	...
		Patna	...	1.17	...	...	...	...	0.60	...	0.78	2.77	1.50	...	...	...	...	...	...	...	...	...
		Mahua (Chid-wara).	...	0.18	0.24	...	...	...	0.25	...	2.43	1.57	0.78	...	...	0.29	...	...	0.10	...	...	...
		Sitahr	...	0.35	0.18	...	0.05	0.68	0.45	0.23	...	1.22	0.85	0.84	...	...	...	...	...	...	...	...
	Champan	Pupri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Mothari	...	...	0.15	...	0.43	0.90	...	0.25	0.29	2.43	2.37	1.93	0.04	...	...	0.45	...	...	0.17	...
		Bettiah	0.17	0.79	...	0.05	...	0.25	...	0.03	0.10	2.93	2.54	1.71	...	...	...	1.58	...	...	0.21	...
		Bagaha	...	1.77	0.02	...	0.12	0.08	1.02	...	0.24	2.90	2.34	0.39	...	...	...	0.57	...	...	0.12	...
		Burhura	0.65	0.80	0.15	...	...	0.08	0.11	0.04	0.13	1.21	3.70	1.47	0.05	...	...	0.02	...	...	1.00	...
	Saran	Gopalkanj	0.09	0.47	1.03	...	...	...	0.61	0.06	0.90	2.50	0.80	0.05	...	...	...	0.20	...	...	2.00	...
		Siwan	...	0.33	0.25	...	...	1.16	0.17	0.02	0.79	1.85	1.75	...	...	...	...	...	...	0.70	...	...
		Ekma	...	0.08	0.14	0.43	...	...	0.68	0.40	0.08	0.19	0.58	...	...	...	...	...	...	...	2.27	0.21
		Chapra	...	0.50	...	...	...	0.40	0.30	0.11	0.10	2.20	2.09	1.20	...	...	...	...	...	0.40	...	...
		Sreepore	...	...	0.00	0.43	...	0.40	0.23	0.11	0.10	2.20	2.09	1.20	...	...	...	...	...	...	...	...
SOUTH BIHAR	Shehabad	Annur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Basentpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Hazar	...	0.11	0.20	0.02	...	0.21	...	0.55	0.14	2.70	1.34	0.22	...	...	...	...	...	...	...	...
		Dehri	...	0.15	0.27	0.04	...	0.28	0.18	0.30	0.88	0.23	0.08	0.29	0.09	...	...	...	...	...	...	...
		Bhabhua	0.20	0.60	0.42	0.37	...	1.11	...	0.08	2.17	0.20	0.00	0.05	...	...	...	...	...	...	...	...
	Gaya	Samaran	1.40	0.16	...	...	...	1.78	...	...	1.82	0.44	0.44	0.33	0.10	...	...	...	...	...	1.20	...
		Arrah	...	0.66	0.13	...	...	0.45	1.27	0.17	2.80	0.72	0.12	...	...	...	...	...	...	0.07	...	...
		Mohaniah	1.10	1.05	...	...	1.15	1.15	...	0.50	4.20	1.50	...	...	...	...	...	...	...	...	...	...
		Khiri	...	0.65	0.25	...	...	0.70	...	...	0.55	...	...	...	...	...	...	...	...	...	...	...
		Agaon	0.05	0.15	0.30	...	0.15	0.05	0.10	0.10	0.40	1.30	1.50	0.02	...	...	...	...	...	...	...	...
	Patna	Ramnagar	...	...	0.20	...	...	0.15	...	...	0.19	1.29	0.55	0.14	...	...	...	...	...	0.39	0.75	...
		Koath	...	2.20	0.30	...	0.10	...	...	...	0.22	1.23	1.22	0.31	...	...	...	...	...	...	...	...
		Nikroul	0.23	0.50	...	...	...	0.60	...	...	0.25	...	...	...	...	...	...	...	...	0.10	0.05	...
		Dassawan	1.03	0.40	0.53	...	...	...	...	...	1.04	...	...	...	...	...	...	...	...	...	...	...
		Manaharpur	...	0.20	0.03	...	...	0.52	...	0.25	...	...	...	...	...	...	...	...	...	...	...	...
CHOTA NAGPUR.	Gaya	Manaharpur	...	0.13	0.47	...	...	...	...	0.05	0.32	0.72	0.10	0.11	...	...	...	...	...	...	...	...
		Aurangabad	...	0.41	0.10	0.68	...	0.08	...	...	0.25	0.50	0.72	...	...	...	...	...	...	...	...	...
		Gaya	...	0.39	0.61	0.26	0.06	...	0.35	0.10	0.07	2.18	0.22	1.77	0.35	...	...	0.07	1.05	0.02	...	...
		Awade	...	0.62	0.26	0.22	...	...	0.12	0.13	0.16	0.08	2.70	0.00	0.02	...	...	...	...	...	...	...
		Awade	...	0.71	...	...	...	...	0.33	...	...	1.16	1.40	...	...	...	...	...	...	...	...	...
	Patna	Awade	...	0.40	...	0.53	...	0.97	1.40	...	...	0.15	0.85	0.10	...	...	...	...	...	...	...	...
		Awade	...	0.71	...	...	...	...	0.33	...	...	1.16	1.40	...	...	...	...	...	...	...	...	...
		Awade	...	0.40	...	0.53	...	0.97	1.40	...	...	0.15	0.85	0.10	...	...	...	...	...	...	...	...
		Awade	...	0.71	...	...	...	...	0.33	...	...	1.16	1.40	...	...	...	...	...	...	...	...	...
		Awade	...	0.40	...	0.53	...	0.97	1.40	...	...	0.15	0.85	0.10	...	...	...	...	...	...	...	...
	Monghyr	Awade	...	0.71	...	...	...	...	0.33	...	...	1.16	1.40	...	...	...	...	...	...	...	...	...
		Awade	...	0.40	...	0.53	...	0.97	1.40	...	...	0.15	0.85	0.10	...	...	...	...	...	...	...	...
		Awade	...	0.71	...	...	...	...	0.33	...	...	1.16	1.40	...	...	...	...	...	...	...	...	...
		Awade	...	0.40	...	0.53	...	0.97	1.40	...	...	0.15	0.85	0.10	...	...	...	...	...	...	...	...
		Awade	...	0.71	...	...	...	...	0.33	...	...	1.16	1.40	...	...	...	...	...	...	...	...	...
	Sonthal	Awade	...	0.40	...	0.53	...	0.97	1.40	...	...	0.15	0.85	0.10	...	...	...	...	...	...	...	...
		Awade	...	0.71	...	...	...	...	0.33	...	...	1.16	1.40	...	...	...	...	...	...	...	...	...
		Awade	...	0.40	...	0.53	...	0.97	1.40	...	...	0.15	0.85	0.10	...	...	...	...	...	...	...	...
		Awade	...	0.71	...	...	...	...	0.33	...	...	1.16	1.40	...	...	...	...	...	...	...	...	...
		Awade	...	0.40	...	0.53	...	0.97	1.40	...	...	0.15	0.85	0.10	...	...	...	...	...	...	...	...
	Panna	Awade	...	0.71	...	...	...	...	0.33	...	...	1.16	1.40	...	...	...	...	...	...	...	...	...
		Awade	...	0.40	...	0.53	...	0.97	1.40	...	...	0.15	0.85	0.10	...	...	...	...	...	...	...	...
		Awade	...	0.71	...	...	...	...	0.33	...	...	1.16	1.40	...	...	...	...	...	...	...	...	...
		Awade	...	0.40	...	0.53	...	0.97	1.40	...	...	0.15	0.85	0.10	...	...	...	...	...	...	...	...
		Awade	...	0.71	...	...	...	...	0.33	...	...	1.16	1.40	...	...	...	...	...	...	...	...	...
	Monghyr	Awade	...	0.40	...	0.53	...	0.97	1.40	...	...	0.15	0.85	0.10	...	...	...	...	...	...	...	...
		Awade	...	0.71	...	...	...	...	0.33	...	...	1.16	1.40	...	...	...	...	...	...	...	...	...
		Awade	...	0.40	...	0.53	...	0.97	1.40	...	...	0.15	0.85	0.10	...	...	...	...	...	...	...	...
		Awade	...	0.71	...	...	...	...	0.33	...	...	1.16	1.40	...	...	...	...	...	...	...	...	...
		Awade	...	0.40	...	0.53	...	0.97	1.40	...	...	0.15	0.85	0.10	...	...	...	...	...	...	...	...
	Sonthal	Awade	...	0.71	...	...	...	...	0.33	...	...	1.16	1.40	...	...	...	...	...	...	...	...	...
		Awade	...	0.40	...	0.53	...	0.97	1.40	...	...	0.15	0.85	0.10	...	...	...	...	...	...	...	...
		Awade	...	0.71	...	...	...	...	0.33	...	...	1.16	1.40	...	...	...	...	...	...	...	...	...
		Awade	...	0.40	...	0.53	...	0.97	1.40	...	...	0.15	0.85	0.10	...	...	...	...	...	...	...	...
		Awade	...	0.71	...	...	...	...	0.33	...	...	1.16	1.40	...	...	...	...	...	...	...	...	...
	Panna	Awade	...	0.40	...	0.53	...	0.97	1.40	...	...	0.15	0.85	0.10	...	...	...	...	...	...	...	...
		Awade	...	0.71	...	...	...	...	0.33	...	...	1.16	1.40	...	...	...	...	...	...	...	...	...
		Awade	...	0.40	...	0.53	...	0.97	1.40	...	...	0.15	0.85	0.10	...	...	...	...	...	...	...	...
		Awade	...	0.71	...	...	...	...	0.33	...	...	1.16	1.40	...	...	...	...	...	...	...	...	...
		Awade	...	0.40	...	0.53	...	0.97	1.40	...	...	0.15	0.85	0.10	...	...	...	...	...	...	...	...
	Monghyr	Awade	...	0.71	...	...	...	...	0.33	...	...	1.16	1.40	...	...	...	...					



**in Bengal in August 1893—concluded.**

[illegible]

## SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSERVATIONS TAKEN IN ASSAM, FOR THE MONTH OF AUGUST 1893.

ONE of the most important features of the weather during July was the unequal distribution of rainfall, the falls in the northern districts being much heavier than those in the southern and especially the south-western districts, and the irregularity was accounted for by the frequent displacement of the trough of low pressure from its usual position (extending from Orissa in a west-north-westerly direction) to one much further north and close to the Himalayas. This arrangement was invariably accompanied by heavy rainfall in North Bengal, the adjacent parts of East Bengal and Assam, and at times in North Bihar. A second noteworthy feature was the absence of cyclonic storms, which, forming as they generally do near the head of the Bay at that time of the year, move across Orissa and keep the trough of low pressure in its normal position.

During the month of August, the weather of which is now being reviewed, divergence from that of July occurred in several important particulars—

(1) The trough of low pressure instead of being forced northwards has more frequently occupied a position to the south of what it usually occupies; that is, commencing from the Circars and south of Orissa, its direction has been to the north-west.

(2) Though, as in July, no cyclonic storms occurred, still on several occasions shallow depressions affected the weather in the Bay. These depressions were peculiar in one respect. Instead of forming near the head of the Bay, they either commenced in Burma or advanced from further east. Their subsequent motion was in an almost due west direction, and they therefore crossed the west coast near Ganjam.

(3) In consequence of the feeble character of the depressions and the southerly displacement of the trough of low pressure, rainfall has been very light and scattered over nearly the whole province. Only one district, viz., East Bengal, has received its normal average fall. Of the other districts the largest deficiency is in South-West Bengal and Chota Nagpur.

(4) As the sky was generally less cloudy than usual in the interior of the province, temperature has run high, and there is on an average excess of about  $1^{\circ}$  at nearly all stations.

In the early part of the month the general conditions were not unlike those of July. A slight disturbance which developed during the last few days of July was still being felt in the south-western districts at the beginning of August, but beyond the light rainfall, which became general over the province, its effects were very slight. In the Bay, however, the steep gradients which had arisen to the south of the depression were accompanied by strongish winds, and the sea continued rough for some days. On the 2nd pressure began to recover very slowly. It continued briskly on the following day, when the pressure distribution as well as the general weather conditions were fairly normal. A brisk fall of pressure setting in over the northern districts simultaneously with a brisk rise in Orissa and the Circars, the trough of low pressure moved northwards, and fairly dry westerly winds became general, but only for a short time, as another low pressure area began to develop over the Bay, while pressure rose in the northern districts. The shallow depression was never well defined, but it led to very unsettled weather in the north-west angle of the Bay, and over the greater part of the province. Pressure gradients were very steep, and remained so for some days during the second week—an arrangement which led to stronger winds than were experienced at any other time during the month. The recovery of pressure after beginning in the north of the Bay was, for some unknown reason, suddenly checked, and gradients, though not steep over the Bay, remained much steeper than usual over the province. Strong moisture-laden winds therefore continued, and rainfall became very heavy at first in East Bengal, and afterwards in North Bengal and Bihar. It may be noted that during those days the trough of low pressure was again close to the hills. Pressure recovered very slowly, and the strong westerly or south-westerly winds continued almost till the middle of the month.

On the 14th rainfall to a large extent stopped, and from this date onwards till the end of the month comparatively fine weather obtained, though light and generally scattered rainfall continued. The southward displacement of the trough of low pressure became the prominent feature of the pressure distribution, and the formation of the shallow low pressure areas in Burma and their subsequent westerly motion the only fact worthy of special mention.

During the third week of the month pressure was steadily above the normal over the province, and readings were much more uniform round the coast of the Bay than is usual at that season of the year. The only interruption to the fine weather which then prevailed was the shallow depression which first began to appear in Burma on the 19th. It was in the centre of the northern half of the Bay on the 22nd, being accompanied by a cyclonic circulation of very light winds, and on the 23rd the centre had crossed the Ganjam coast. The depression moved away to the north-west, but a very shallow residual low pressure area remained for several days afterwards off the South Orissa and Ganjam coast, causing in these parts light northerly or easterly winds. This residual depression almost entirely filled up on the 28th, but it at the same time moved northwards into the south-western districts of Bengal, where rainfall became for a short time more heavy and



general. From the 28th to the 30th the trough of low pressure was in its normal position, and light general rain was falling over the greater part of the province, but on the last day of the month a slight depression had again formed over the south of Orissa, and rainfall was very scattered in Bengal.

*Pressure.*—Changes have been large only on one or two occasions, the depressions which formed having been more shallow than usual. In the early part of the month differences from the normal were very small, and the average pressure was very nearly normal. During the following week the largest oscillations were recorded, and about the 8th gradients were unusually steep. The rise on the 9th was  $\cdot 16$  inch in Orissa and the Circars, and more than  $\cdot 1$  inch over the whole of Lower Bengal. This rapid rise, however, did not extend northwards, and the result was that unusually steep gradients prevailed in Bengal for some days. These passed away slowly, and the distribution that followed was very uniform. During the latter half of the month readings were generally slightly above at inland stations and below the normal round the coast, and the shallow depressions which formed in the Bay were due quite as much to the excess in Bengal as to the defect where pressure was lowest. Towards the end of the month there was a steady fall at inland stations, and readings were again below the normal, though not to any great extent. Mean pressure for the whole month is uniformly above the normal by about  $\cdot 01$  inch.

*Temperature.*—Owing to the cloudy weather in the early part of the month, the air was comparatively cool, especially between the 5th and 12th, but after the 15th, when the pressure distribution became uniform, and calm weather prevailed both over the province and the Bay, there was considerably more sunshine, and temperature steadily increased. During the first week mean defect was about half a degree, but during the second it increased to nearly  $1\cdot 5^{\circ}$ . The rise then began, and by the end of the third week there was excess in all districts except North Bengal and Assam. During the last ten days excess averaged about  $2^{\circ}$ . The mean difference between day temperature and the normal varies from defect of  $2\cdot 5^{\circ}$  at Sibsaigar to excess of  $3^{\circ}$  in the west of Bihar. Minimum temperature, on the other hand, is more uniform and generally high by about half a degree.

*Rainfall.*—The average rainfall for the larger divisions is below the normal in all except East Bengal, where it is exactly normal. The greatest difference is in South-West Bengal, where defect is  $4\cdot 6$  inches, or 36 per cent., and in Chota Nagpur, where it is  $3\cdot 8$  inches, or 28 per cent.; South Bihar also has received much less than usual, nearly 3 inches, while in Orissa and North Bihar defect is about 2 inches. It is only in the eastern half of the province, where normal amounts have been recorded, but the distribution was very unequal, as a large part fell during the disturbed weather in the second week. The large deficiency in the western districts is probably due to the weak character of the disturbances which occurred during the latter half of the month. The depressions which form in the north of the Bay generally pass through these districts, and cause heavy rainfall at the time of their passage. At other times westerly winds prevail, and the rainfall is under these circumstances of comparatively small amount. The number of rainy days, that is, days on which at least a tenth of an inch fell, was everywhere below the average by about 10 per cent. in the eastern and 20 per cent. in the western half of the province.

The comparison of the actual rainfall in the various large divisions of the province with the normal is most accurately and conveniently shown in the form of a percentage. The figures representing the rainfall for the month, calculated in this way, are included in the table below under the heading of August. This table really gives a condensed summary of the rainfall statistics of the present year up to date for each meteorological division, the first eight divisions giving the actual average rainfalls in each division in each month expressed as a percentage of the normal, while the ninth column gives the total rainfall for the first eight months expressed as a percentage of the normal rainfall for that period:—

METEOROLOGICAL DIVISIONS.									Actual rainfall of first eight months of 1893 expressed as a percentage of the normal fall for the period.
	January.	February.	March.	April.	May.	June.	July.	August.	
Orissa	422	309	238	89	607	99	67	84	146
South-West Bengal ..	120	464	160	116	225	183	94	64	133
North Bengal	104	377	145	213	96	100	166	90	121
East Bengal	80	291	123	149	207	134	108	100	130
North Bihar	170	357	134	203	84	100	161	85	118
South Bihar	115	602	188	255	171	166	122	74	124
Chota Nagpur	155	585	228	151	212	185	121	73	136

From the above table it will be seen that during the past three months there has been a steady decrease of rainfall by between twenty and fifty per cent. of the normal in all districts except North Bengal and North Bihar; that in these two districts there was a steady increase during June and July, but that during August it had again begun to fall off.

Excess falls were received in the south of Orissa and over a strip of country in the extreme east of the province, including Chittagong, Tippera, and parts of Noakhali, Mymensingh, Rajshahi, Bogra, Dinajpur, and Rangpur; also in Jalpaiguri and the Darjeeling districts. The only places where excess was more than 5 inches were—Buxar 20, Siliguri 6,

Jamalpur 6·7, Netrakona 7, Fenny 12, and Outtack 5 inches. Elsewhere falls were below the normal by fairly uniform amounts. Defect of more than 5 inches occurred in parts of the following districts:—Midnapore, 24-Parganas, Howrah, Hooghly, Nadia, Burdwan, Bankura, Birbhum, Malda, Kuch Bihar, Shahabad, Gaya, and Hazaribagh. In the other districts defect was between 2 and 5 inches.

Falls of more than 10 inches occurred in the south of Orissa, East Bengal, North Bengal, and part of North Bihar. Along a narrow strip running east and west across the province, and containing parts of Rajshahi, Malda, Murshidabad, the Sonthal Parganas, Manbhum and Lohardaga, falls varied between 10 and 15 inches, while immediately to the north of it, especially in the central districts, amounts were less than anywhere else in the province, and in places less than 5 inches. In the south of Orissa amounts varied from 10 to 16 inches, and in the other part from 4 to 12 inches. Over the western districts, except in North Bihar and part of Chota Nagpur, falls were very uniform, and generally between 8 and 10 inches. In South-West Bengal, where the greatest deficiency occurred, the lowest fall was 4 inches in part of the Bankura district, and the highest 16 inches at Saugor Island.

The following table gives full data for the comparison of the actual and normal rainfall of the month of August in all districts of the province. The figures are derived from the average and actual rainfall of the rain-recording stations in each district, due allowance or weight being made for the area which each station represents. This gives a more accurate average than the arithmetical means given in the weekly and monthly meteorological tables. The first column gives the normal or average district rainfall as determined from the rainfall observations of the past 15 years; the second column gives the actual district rainfall as determined from the weighted actual rainfalls of the month at the reporting stations in each district; the third column expresses the ratio of the actual district rainfall of the past month to the normal rainfall as a percentage; the fourth column states as a percentage how much the district rainfall of the month varied from the normal:—

*Percentage Table for August 1893.*

DIVISION.	DISTRICT.	Normal district rainfall for August.	Actual district rainfall for August 1893.	Percentage of actual to normal rainfall.	Percentage excess (+), defect (—).
Orissa	Puri	11·46	13·39	117	+ 17
	Outtack	12·20	6·85	56	— 44
	Balasore	11·77	10·09	86	— 14
	Midnapore	13·25	8·55	65	— 35
	24-Parganas	13·72	8·13	59	— 41
	Howrah	14·28	6·01	42	— 58
	Hooghly	14·21	7·68	54	— 46
South-West Bengal	Burdwan	12·36	5·40	44	— 56
	Bankura	13·78	9·61	70	— 30
	Birbhum	13·67	6·47	47	— 53
	Nadia	12·19	7·33	60	— 40
	Khulna	12·48	12·67	102	+ 2
	Jessore	11·54	8·15	71	— 29
	Murshidabad	11·79	9·33	79	— 21
	Chittagong	23·48	23·04	98	— 2
	Backergunge	16·14	11·85	73	— 27
	Noakhali	23·49	25·11	107	+ 7
East Bengal	Faridpur	12·08	10·62	88	— 12
	Dacca	12·38	12·18	98	— 2
	Tippera	16·37	16·33	100	0
	Mymensingh	14·07	18·68	133	+ 33
	Pabna	11·95	11·60	97	— 3
	Bogra	11·81	12·61	107	+ 7
	Rajshahi	11·48	10·23	89	— 11
North Bengal	Malda	12·03	7·87	65	— 35
	Dinajpur	11·87	9·80	83	— 17
	Rangpur	12·35	11·79	95	— 5
	Kuch Bihar	20·04	18·14	150	+ 50
	Jalpaiguri	24·94	26·77	107	+ 7
	Darjeeling	25·45	26·98	106	+ 6
	Purnea	14·63	13·16	90	— 10
North Bihar	Bhagalpur	11·55	7·40	64	— 36
	Darbhanga	10·71	10·54	98	— 2
	Muzaffarpur	10·11	8·92	88	— 12
	Champaran	12·18	10·17	83	— 17
	Saran	10·21	8·79	86	— 14
	Shahabad	11·40	8·31	73	— 27
South Bihar	Gaya	11·71	6·93	59	— 41
	Patna	10·58	7·86	74	— 26
	Monghyr	11·21	10·10	90	— 10
	Sonthal Parganas	12·79	10·06	79	— 21
	Hazaribagh	13·07	9·36	72	— 28
Chota Nagpur	Lohardaga	14·76	10·42	71	— 29
	Palamau	11·56	8·41	73	— 27
	Singbhum	13·88	10·66	77	— 23
	Manbhum	12·87	10·33	80	— 20

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the month of August 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.								RAINFALL.							
	Highest observed during month.	Lowest observed during month.	Averages for month.			Average mean of month above or below normal mean of month.	Of month.			Rainy days.			Since 14th May 1902.			
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in month.	Normal average number in month.	Variation.	Average.	Normal average.		
Orissa ... ..	47	71.1	88.3	78.5	83.4	+0.2	9.58	11.41	-1.83	14.40	18.43	-1.03	45.35	34.98		
South-West Bengal ... ..	95.7	73.9	89.9	78.9	83.9	+0.7	8.11	12.71	-4.60	12.98	18.30	-5.32	46.35	37.48		
North Bengal ... ..	94.3	72.6	88.0	78.2	83.1	+0.1	12.53	13.87	-0.34	13.90	18.39	-1.49	56.95	50.79		
East Bengal ... ..	92.7	74.1	80.7	78.1	82.4	+0.5	15.90	18.98	0	16.48	18.56	-2.08	60.33	54.95		
North Bihar ... ..	94.3	74.9	89.1	79.1	84.1	+0.4	9.83	11.50	-1.67	11.44	13.06	-2.51	37.35	34.08		
South Bihar ... ..	96.4	73.3	89.8	78.8	84.3	+0.8	8.50	11.45	-2.95	10.91	13.90	-3.99	55.35	51.76		
Chota Nagpur ... ..	93.4	69.4	85.4	73.7	79.6	+0.3	9.80	13.56	-3.76	14.20	17.23	-3.03	44.30	36.36		
Assam ... ..	98.6	73.5	86.8	77.5	82.2	+0.9										

\* Daltonganj not included.

METEOROLOGICAL OFFICE, BENGAL,  
The 12th September 1893.

C. LITTLE,  
Offg. Meteorological Reporter to the Govt. of Bengal.

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.											
			AIR PRESSURE.				WIND.		TEMPERATURE.					
			Mean barometric height, 3 A. M. reduced to 32°.	Mean reduced to sea-level and constant gravity, lat. 18°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.
ORISSA.	Puri	Puri	29°606	29°561	—	N	206	91°3	6th Sept.	76°6	3rd Sept.	89°1	79°7	84°4
		Gopalpore	29°616	29°577	—085	NNW	102	90°7	7th	76°8	3rd	88°6	78°2	83°2
		False Point	29°613	29°576	—097	Variable	202	89°5	6th	76°1	3rd	87°6	78°1	82°8
	Outtack	Outtack	29°639	29°561	—101	Variable		91°7	7th	75°8	3rd	89°1	79°3	84°1
BALASORE.	Balasore	Balasore	29°564	29°556	—113	Variable	99	90°4	8th	77°7	3, 4 & 9	87°8	78°8	85°2
	Midnapore	Midnapore	29°469	29°588	—086	NE	84	92°8	7 & 8	77°1	3rd	80°6	78°5	84°1
	Calcutta	Calcutta	29°621	29°588	—083	E	103	89°6	7 & 8	78°7	3—6	88°0	79°3	83°6
		Saugor Island	29°608	29°577	—092	SSE	237	90°2	6 & 7	79°0	8 & 9	88°9	80°4	84°6
SOUTH-WEST BENGAL.	Howrah	Howrah	29°600	29°601	—063	E	119	92°3	7th	78°7	3 & 5	89°0	79°3	84°2
	Nadia	Krishnagar	29°606	29°612	—071	ESE	123	93°0	7th	78°9	4 & 5	89°1	79°6	84°4
	Khulna	Jessore	29°562	29°597	—077	Variable	89	92°1	7th	78°2	5th	89°1	79°3	84°5
	Burdwan	Burdwan	29°515	29°506	—004	Variable	91	93°7	7th	73°9	3rd	90°1	77°5	83°9
BANKURA.	Bankura	Bankura	29°322	29°370	—088	E	82	92°1	7th	79°6	5th	87°6	78°1	83°0
	Birbhum	Berhampore	29°508	29°608	—070	E	90	90°6	7th	76°3	3rd	88°0	79°7	83°9
	Murshidabad	Sirajganj	29°633	29°620	—067	Calm	119	88°6	7 & 8	77°8	5th	87°1	79°6	83°4
	Bogra	Bogra	29°606	29°610	—036	S	84	90°2	6 & 8	77°2	9th	87°9	78°6	83°2
NORTH BENGAL.	Rajshahi	Rampur Bhojla	29°592	29°611	—056	Variable	121	89°1	6 & 7	74°6	3rd	87°6	78°0	82°8
	Malda	Malda	29°582	29°614	—	SE	88	93°6	7th	76°0	6th	88°9	79°4	84°1
	Dinajpur	Dinajpur	29°570	29°645	—083	Variable	70	91°6	7th	76°2	7 & 8	88°5	78°4	83°5
	Rangpur	Rangpur	29°577	29°663	—027	SE	54	92°8	3rd	74°2	7th	89°0	77°5	83°3
JALPAIGURI.	Jalpaiguri	Jalpaiguri	29°437	29°674	+002	Ely	67	92°0	3rd	74°6	7th	88°1	76°3	82°2
	Kuch Bihar	Darjeeling	22°947	—	—025	Variable	136	89°1	6th	55°6	8th	64°2	57°2	60°8
	Sikkim	Gnatong	19°063	—	—	SEly		56°4	6th	54°1	9th	53°0	37°0	45°0
	Chittagong	Chittagong	29°624	29°658	—073	SEly	99	89°7	7th	76°6	7 & 9	87°7	77°0	82°3
CHITTAGONG HILL TRACTS.	Demagiri	Demagiri	29°664	29°612	—080	Calm	83	Observations not received.						
	Backergunge	Barisal	29°628	29°618	—087	SEly	167	89°5	7th	76°8	8th Sept.	86°8	78°1	82°5
	Noakhali	Noakhali	29°646	29°640	—054	SEly	93	89°0	7th	78°4	4, 5 & 9	86°2	79°4	82°8
	Faridpur	Faridpur	29°633	29°633	—071	E	154	90°6	9th	77°7	4th	88°6	79°7	84°2
Dacca.	Dacca	Dacca	29°657	29°641	—064	Variable	121	91°3	7th	76°3	8th	89°2	78°0	83°6
	Tippera	Comilla	29°637	29°647	—058	ENE	100	90°7	4th	78°0	8 & 9	88°6	78°8	83°6
	Mymensingh	Mymensingh	29°555	29°633	—043	NEly	51	92°2	3 & 7	76°2	9th	86°6	79°1	83°8
	Purnea	Purnea	29°401	29°603	—067	E & S	82	92°7	3 & 7	75°5	8th	88°1	79°0	83°1
Bhagalpur.	Bhagalpur	Bhagalpur	29°408	29°616	—064	SEly	139	94°0	7th	75°4	6th	88°6	79°7	84°2
	Darbhanga	Darbhanga	29°486	29°616	—	ESE	155	92°7	3rd	75°2	8th	88°8	79°2	84°0
	Muzaffarpur	Muzaffarpur	29°430	29°610	—046	ENE	144	95°2	3rd	75°9	9th	90°6	77°6	84°1
	Champanan	Motihari	29°475	29°607	—034	ESE	145	94°3	3rd	76°1	8th	89°1	78°5	83°8
Saran.	Chapra	Chapra	29°292	29°594	—068	E	228	90°8	8th	75°0	9th	87°2	77°8	82°5
	Dehri	Dehri	29°400	29°592	—089	E	170	92°5	3rd	78°9	8th	89°3	77°7	83°4
	Shahabad	Arrah	29°447	29°587	—057	Variable	63	92°9	3 & 6	75°0	8th	89°3	78°6	84°0
	Gaya	Gaya	29°265	29°592	—065	E	150	94°5	3rd	75°8	3 & 9	90°0	77°9	84°0
PATNA.	Patna	Bankipore	29°467	29°601	—068	E	178	93°5	3rd	75°7	8th	88°4	79°4	83°9
	Monghyr	Naya Dumka	29°168	29°601	—087	SEly	111	90°0	7th	75°3	8 & 9	87°1	77°4	82°3
	Hazaribagh	Hazaribagh	27°055	29°594	—063	Southerly	215	87°2	3 & 6	70°3	9th	84°7	78°5	78°6
	Lohardaga	Ranchi	27°528	29°582	—067	Calm	172	87°0	7th	71°4	9th	83°3	72°4	77°8
SINGHBHUM.	Singhbhum	Daltonganj	28°560	29°563	—075	Calm	15	92°4	7th	75°7	3rd	90°2	77°2	83°7
	Manbhum	Chakras	29°431	29°720	—081	Variable		92°6	6th	72°3	8th	86°7	76°0	81°4
	Shibpur	Dhubri	29°587	29°686	—040	NEly	158	89°2	6th	74°6	7th	84°6	77°3	81°0
	Goalpara	Silchar	29°607	29°602	—006	Calm		96°1	4th	74°3	8th	91°2	77°5	84°4

\* Mean of 5 days.

Explanation.—Summary.—The normal means of air pressure and temperature are the arithmetical average or means of the readings during the same period. The humidity of the atmosphere is expressed in percentage, saturated air being represented by 100. A clear sky is denoted by 0 and an overcast sky by 100. The normal means are the numerical means or averages of the rainfall in the district, determined from the observations made in the subdivisions of the district. The mean total rainfall at the subdivisions stations in the district, divided by the number of stations, is the normal mean of the district.

for the week ending Saturday, the 9th of September 1893.

DISTRICT OBSERVATIONS.															DISTRICT.	
Variation from normal mean.	Mean 9 A.M. temperature.	Average humidity at 9 A.M.	Average cloud amount at 9 A.M.	Rainfall of week at observing station.	OF WEEK.				RAINFALL.							
					Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Since 1st of month.			Since 15th May 1893.				
									Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.		
-	82.9	85	5.7	2.65		2.51		3.14		3.31			36.87		Puri.	
-0.2	83.0	86	3.0	1.01												
-0.1	82.5	87	8.1	4.99												
+0.8	83.0	80	5.3	4.63		2.45		2.85		2.99			37.74		Outback.	
+1.3	83.5	98	4.4	6.17		2.52		3.09		3.11			39.23		Balasore.	
+1.3	82.5	88	4.4	2.92	1.36	2.64	2.25	3.36	1.81	3.17	-1.36	52.23	41.05	+10.57	Midnapore.	
+1.3	82.9	87	7.3	0.65	1.15	3.30	2.14	3.55	1.81	3.35	-2.54	50.87	42.65	+8.02	S. Parganna.	
+1.6	83.7	87	8.9	1.75												
					1.18	2.93	3.00	3.46	1.18	3.44	-2.26	48.78	41.15	+7.63		
						2.48		3.58		2.04			40.59		Howrah.	
+1.4	83.0	86	8.1	0.85	0.72	2.43	2.80	3.02	0.85	3.00	-2.15	46.43	38.30	+8.23	Hooghly.	
+1.1	82.7	91	7.4	0.68	1.08	2.60	3.00	3.45	1.73	3.43	-1.64	58.14	44.49	+13.65	Nadia.	
						2.54		3.29		3.09			30.78		Khulna.	
+0.7	82.2	87	8.0	0.83	0.99	2.22	2.00	3.14	1.14	2.82	-1.68	43.32	37.52	+5.80	Jessore.	
+1.1	81.4	91	4.0	1.30	1.38	2.51	2.25	3.22	1.84	3.34	-1.50	40.78	42.51	+7.27	Murday.	
-0.1	81.3	90	7.9	1.46	1.78	3.23	3.07	3.77	2.40	4.06	-1.66	41.94	41.93	+0.01	Bangura.	
+0.5	81.5	94	8.1	2.30		3.05		3.62		3.77			36.46		Birbhum.	
+0.7	82.0	91	9.9	1.22	1.54	3.11	3.00	3.45	1.89	3.55	-1.66	60.66	40.88	+19.78	Murshidabad.	
+1.3	82.5	89	5.1	0.98	1.25	2.85	2.25	3.25	1.87	3.66	-2.80	50.27	44.84	+5.43	Pabna.	
+0.9	83.1	88	7.0	0.41	1.55	3.48	2.33	3.29	2.25	4.35	-2.12	53.00	41.33	+11.67	Bogra.	
-	82.9	89	6.6	1.15	3.08	3.38	3.50	3.34	3.60	4.23	-0.63	43.37	42.16	+1.21	Rajshahi.	
+0.6	80.6	90	7.9	2.10	2.75	3.47	3.20	3.48	2.07	4.20	-1.23	53.58	45.41	+8.17	Maida.	
+0.9	81.4	89	5.6	3.33	2.60	3.93	3.00	3.47	3.05	4.70	-1.65	62.23	59.13	+3.10	Dinajpur.	
+0.9	80.1	87	7.7	3.34	7.75	6.05	3.00	1.15	7.75	8.02	-0.27	99.16	94.59	+4.56	Rangpur.	
				2.93	0.09	4.00		3.87	2.80	8.21	-5.28	90.83	89.53	+1.30	Jalpaiguri.	
+0.1	80.9	87	9.1	6.88	6.59	5.74	4.25	4.73	7.10	6.82	+0.23	110.86	108.88	+1.98	Kuch Bihar.	
-	80.0	86	8.0	6.90											Darjeeling.	
+1.3	82.3	87	7.6	2.95	2.20	3.48	3.50	4.20	3.16	6.41	-3.25	121.45	94.48	+26.97	Sikkim.	
						3.19		3.40		3.77			91.05	64.66	+26.40	Chittagong.
?	82.0	90	0.7	3.70	3.34	3.50	3.00	4.11	3.71	4.21	-0.50	70.94	60.46	+10.48	Chittagong Hill Tract.	
+1.0	81.2	93	4.7	0.50	0.55	5.39	2.00	4.28	1.54	6.77	-5.23	90.80	66.06	+24.74	Backergunge.	
+0.7	83.0	90	6.9	2.58	1.60	3.02	3.67	3.19	1.68	3.87	-1.79	54.00	41.13	+12.87	Noakhali.	
+1.0	82.3	80	8.4	1.47	2.32	3.84	3.50	3.53	2.80	4.06	-1.26	56.13	48.66	+7.47	Faridpur.	
+2.0	81.4	91	6.6	0.22	1.40	3.78	3.75	4.00	3.05	4.76	-2.71	61.86	55.42	+6.44	Dacca.	
+1.6	82.3	89	7.4	2.59	1.43	3.57	3.00	3.76	1.86	4.47	-2.61	75.80	53.92	+21.88	Tippura.	
+1.0	81.5	91	6.1	3.72	4.64	3.83	4.33	3.41	4.71	4.02	-0.21	60.05	60.87	-0.82	Mymensingh.	
+0.3	82.2	90	8.9	4.83	5.60	2.58	4.50	3.11	5.60	3.28	+2.38	40.58	35.25	+5.33	Purnea.	
+0.9	82.0	88	6.9	1.63	2.73	2.96	4.00	2.83	3.75	3.62	-1.17		35.04		Shagapur.	
-	81.6	91	6.7	3.11	1.95	2.36	2.07	3.69	2.48	3.35	-0.87	35.43	33.27	+2.16	Darbhanga.	
+1.1	82.6	88	6.6	2.15		2.17		3.41		3.18			35.94		Munshiganj.	
+0.3	83.2	88	9.9	2.73	2.29	1.73	3.00	3.27	2.54	2.40	+0.05	31.06	31.02	-0.04	Champanan.	
+0.1	83.4	88	4.9	1.83											Saran.	
+0.6	81.9	88	7.6	1.84	2.78	3.05	4.20	2.79	3.58	2.53	+0.99		31.23		Shahabad.	
+0.4	83.1	90	4.3	4.70												
0	80.4	91	6.6	3.33	4.10	1.99	4.75	2.60	4.15	2.43	+1.72		23.00		Gaya.	
-0.3	82.5	88	9.7	3.03	3.33	1.99	3.73	2.78		2.64			21.43		Pasua.	
					2.08	2.41	3.67	3.07	2.08	3.06	-0.98	28.69	24.14	+4.55	Monohyr.	
+0.6	81.4	85	5.0	1.55	2.35	2.92	4.00	3.53	2.44	3.71	-1.27	47.23	39.53	+7.70	South Parganas.	
+0.7	76.5	89	10.9	6.30		2.64		3.48		3.16			40.40		Hazaribagh.	
+0.9	75.9	98	6.0	4.51		2.89		3.96		3.71			41.89		Lohardaga.	
						2.37		3.60		3.04			33.93		Palamau.	
+1.4	80.1	90	8.7	1.97	1.97	2.38	4.00	3.45	3.37	3.17	-0.80	45.69	41.78	+3.91	Singbhum.	
-1.3	78.5	93	6.9	3.79	3.63	1.89	4.00	3.23	4.00	2.47	+1.53	55.26	37.10	+18.16	Manbhum.	
-0.4	79.4	91	7.7	2.00											Assam.	
+2.5	81.6	88	8.1	4.35												

for the last ten years. The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater. The numbers denoting cloud amount represent the part of the sky covered the whole sky being denoted by 10. Under the head District observations of the week ending Saturday, the 9th of September 1893. The mean for the district are the numerical average of the rainfall returned for the week ending Saturday, the 9th of September 1893.

## Statement of Rainfall in Bengal for the week ending Saturday (8 a.m.), the 9th of September 1893.

Meteorological Division.	District.	Station.	RAINFALL.							Total number of rainy days.	Rainfall of week.	Average rainfall of week.	Total rainfall since 1st of month.	Average total rainfall from 1st of month.	Total rainfall from 1st of month.	Average rainfall from 1st of month.
			Sunday, 3rd.	Monday, 4th.	Tuesday, 5th.	Wednesday, 6th.	Thursday, 7th.	Friday, 8th.	Saturday, 9th.							
ORISSA	Puri	Puri ...	2.16	0.11	0.58	0.14	0.12	0.21	0.02	4	2.35	2.35	4.77	5.40	41.59	55.13
		Khurda ...	2.89	0.11	0.58	0.14	0.12	0.21	0.02	4	2.35	2.35	4.77	5.40	41.59	55.13
		Banpur ...	4.15	0.41	0.58	0.14	0.12	0.21	0.02	4	4.00	3.81	8.58	3.08	66.78	33.24
		False Point ...	3.42	0.41	0.58	0.14	0.12	0.21	0.02	4	4.00	3.81	8.58	3.08	66.78	33.24
		Gop ...	4.50	0.10	0.58	0.14	0.12	0.21	0.02	4	4.00	3.81	8.58	3.08	66.78	33.24
		Salpore ...	2.35	0.10	0.58	0.14	0.12	0.21	0.02	4	4.00	3.81	8.58	3.08	66.78	33.24
		Pipli ...	3.65	0.18	0.58	0.14	0.12	0.21	0.02	4	4.00	3.81	8.58	3.08	66.78	33.24
		Rampur ...	0.18	0.58	0.14	0.12	0.21	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Kurnala ...	2.38	0.33	0.13	1.30	0.02	1.58	1.58	3	3.10	2.41	0.20	2.00	60.23	57.23
		Outlook ...	5.16	0.45	1.30	0.02	1.58	1.58	1.58	3	3.10	2.41	0.20	2.00	60.23	57.23
SOUTH-WEST BENGAL.	Midnapore	Midnapore ...	2.76	0.50	0.85	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Banki ...	0.44	0.20	0.02	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Outlook ...	3.05	0.10	0.02	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Chandabali ...	3.04	0.10	0.02	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Bhadisk ...	1.05	0.05	0.02	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Soro ...	1.28	0.40	0.02	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Balasore ...	4.74	0.50	0.02	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Haripad ...	0.81	0.00	0.02	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Chital ...	0.24	0.04	0.02	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Midnapore ...	1.78	0.17	0.02	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
SOUTH-WEST BENGAL.	S. Parganas	Chital ...	0.88	0.21	0.05	0.10	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Kukrahaty ...	0.88	0.21	0.05	0.10	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Gurubeta ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Panskura ...	1.35	0.15	0.08	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Dantoon ...	0.85	0.20	0.04	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Saugor Island ...	0.35	0.16	0.02	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Diamond Harbour ...	1.05	0.02	0.18	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Canning Town ...	0.42	0.18	0.02	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Alipore (Obervatory) ...	0.12	0.12	0.13	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	1.58	0.08	0.02	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
SOUTH-WEST BENGAL.	Howrah	Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
SOUTH-WEST BENGAL.	Nadia	Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
SOUTH-WEST BENGAL.	Khulna	Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
SOUTH-WEST BENGAL.	Jessore	Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
SOUTH-WEST BENGAL.	Burdwan	Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.20	2.00	60.23	57.23
		Barraekpore ...	0.81	0.07	0.10	0.02	0.02	0.02	0.02	3	3.10	2.41	0.			







**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSER-  
VATIONS TAKEN IN ASSAM, FOR THE WEEK ENDING 8 A.M.,  
SATURDAY, THE 9TH SEPTEMBER 1893.**

The weather for the past week has been unusually unsettled, especially over the north of the Bay, as during the first two days a depression of considerable depth passed from the north-west angle of the Bay across the south-western districts, causing heavy rainfall in its passage over that part of the province; and almost immediately after it ceased to affect the weather in the province, a fresh disturbance began in Burma. This second depression moved into the northern part of the Bay, and by the end of the week was advancing into the north-west angle following the track of the previous one and developing in a similar way.

The first depression was partly described in the report of the previous week. Up till Saturday, the 2nd, it was moving in an almost northerly direction towards the Bengal coast, and, but for a rapid rise of pressure, which set in from the north-east, and seemed to be independent of the cause, which led to the formation of the depression, it would probably have passed over the central districts, but when the centre of lowest pressure was near Saugor Island, the direction of motion took a sudden change, and the depression passing near Balasore moved at the rate of about 20 miles an hour in an almost westerly direction. The rise of pressure which thus began from the north-east at first caused very steep gradients over Bengal, and strong squally easterly winds over the whole province, but as the wave advanced very quickly, the distribution of pressure underwent a material change in the course of a few hours, and the disturbed weather as quickly moderated. From being nearly half an inch in defect at Balasore on Sunday morning at 8 A.M., and more than .2 inch in South-West Bengal, Orissa, Chota Nagpur, and the north-west angle of the Bay, readings on Monday at the same hour were less than a tenth below the normal, except at a few of the extreme western stations. Rain was general and heavy in the south-western districts during these two days, but amounts quickly diminished after this very rapid recovery of pressure and during the two following days, but specially on Wednesday, the 6th, very little rain fell anywhere in the province, while the sky had become almost cloudless in places.

As the rise of pressure did not extend far south, the result was that pressure became higher in Bengal than over the Bay and in part of Burma. A second depression therefore appeared and its development was accelerated by a brisk fall of pressure in Burma while there was still a rapid rise in the north-western districts of Bengal. The difference from the normal on the 5th varied from excess of .05 inch in the West of Bihar to defect of .03 inch in the south of Burma. During the next two days small unimportant changes followed except in the northern districts, where a brisk fall of pressure caused a slight depression near the foot of the hills. This change was of some importance because it led to heavy rain at first in North Bengal, and afterwards in Bihar, the rainfall being accompanied by a large fall in temperature. On Thursday, the 7th, Jalpaiguri received 7 inches, and on Friday nearly all the northern stations reported more or less heavy rain. Meanwhile the depression was slowly developing over the Bay, and the indraught towards it kept weather fine and almost rainless in Lower Bengal, Chota Nagpur and Orissa. By 8 A.M. on Saturday it lay over the north of the Bay, the area of lowest pressure extending from Arakan to Orissa. Defect within this area was nearly a quarter of an inch, and the depression extended over the whole province, and the north of the Bay. The cyclonic circulation of winds was then very regular, squally weather was beginning in the east of the Bay, and showers were almost general in Lower Bengal, but the rainfall in North Bengal and Bihar had almost entirely stopped.

The commencement of this second depression was probably caused by the large increase of pressure, which forced the first one westward with such unusual rapidity, and the check to the southerly winds which came from the same cause must have led to the heavy rainfall which accompanied the second depression throughout its development and advance.

**Pressure**—Changes have been very large, and means for the week are considerably below the normal. Defect varies from a little under a twentieth of an inch in the northern districts to more than a tenth in part of Orissa. On Sunday, the 3rd, changes varied from a rise of .08 inch in Assam to a fall of nearly .2 inch at Balasore and Chaibassa. On the 4th there was a rise everywhere, varying from .05 inch in Bihar and Assam to .323 inch at Balasore. The rise continued with moderate rapidity in Bengal on the 5th, but there was a slow fall on the 6th, the greatest changes being at the northern stations. The fall continued till the end of the week when there was again a considerable defect.

**Temperature**—Was low in the south-western districts in the beginning of the week, and a rapid fall prevailed in Assam on the 7th and in North Bengal and Bihar on the 8th, but at other times there was excess, greatest in the middle of the week, when it averaged about 3°. Means for the larger divisions are all above the normal, excess varying from a quarter of a degree in Orissa and South Bihar to about 1° in Lower Bengal and Chota Nagpur.

*Rainfall*—Heavy rain fell in the south-western districts in the early part of the week and in Bihar and North Bengal towards the end. The rapid rise of pressure on Sunday and Monday led to fine weather over the greater part of the province, and very little rain fell anywhere on Wednesday, the 6th. On other days, with the exceptions mentioned above, comparatively fine weather was general with light local showers. South-West and East Bengal received less than half the normal, North Bengal about 60 per cent., while the average fall in the other divisions was above the normal, by more than one inch in Chota Nagpur and more than half an inch in Orissa and Bihar.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 9th of September 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.							RAINFALL.											
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.		Since 16th May 1893.				
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.			
Orissa	...	...	91.2	75.8	88.4	78.8	83.0	+0.3	3.13	2.49	+0.64	2.47	3.02	—0.55	4.09	3.12	42.58	37.73	
South-West Bengal	...	...	93.7	73.0	84.8	79.1	84.0	+1.0	1.31	2.77	—1.46	2.30	3.41	—1.02	1.58	3.88	47.44	40.69	
North Bengal	...	...	93.6	74.2	88.2	78.3	83.2	+0.9	2.44	3.03	—1.40	2.84	3.40	—0.65	2.71	4.08	61.80	55.41	
East Bengal	...	...	91.8	76.6	87.9	78.6	83.2	+1.3	1.02	3.30	—1.94	2.87	3.86	—0.90	2.42	4.78	70.34	50.84	
North Bihar	...	...	96.2	75.2	89.0	78.7	83.8	+0.8	3.32	2.02	+0.70	3.50	3.00	+0.50	3.47	3.50	41.82	37.30	
South Bihar	...	...	94.5	73.8	88.5	78.1	83.3	+0.2	3.02	2.30	+0.72	4.09	3.01	+1.08	3.24	2.94	37.90	34.38	
Chota Nagpur	...	...	92.4	70.3	86.1	74.0	80.0	+1.0	3.66	2.50	+1.16	4.28	3.52	+0.76	3.00	3.12	47.02	39.58	
Assam	...	...	96.1	72.5	87.5	76.9	82.2	—0.3											

\* Daltonganj not included.

METEOROLOGICAL OFFICE, BENGAL,

C. LITTLE,

The 12th September 1893.

Offg. Meteorological Reporter to the Govt. of Bengal.

Abstract of the Results of the Barometric and Thermometric Observations taken at 10 a.m. at the Meteorological Office, Chowringhee, in the month of August 1893.

	Inches.	Date.
The mean pressure at 10 A.M. during the month ...	29.648	
The mean temperature at 10 A.M. during the month ...	85.9	
The highest temperature during the month ...	93.0	14th and 30th.
The lowest temperature during the month ...	75.8	9th.
The absolute range of temperature during the month ...	17.2	
The mean daily range of temperature during the month ...	10.7	
The greatest range of temperature in one day during the month ...	14.2	14th.
The mean 10 A.M. humidity during the month ...	83	
The mean 10 A.M. vapour tension during the month ...	1.020	
The total rainfall of the month ...	7.49	
The greatest fall in 24 hours ...	1.15	31st.
The number of rainy days in the month ...	17	

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA,

The 11th September 1893.

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 3rd to 9th September 1893.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.						HYGROMETRY.			Rainfall, past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
September	3rd	29.413	83.9	89.0	10.2	78.8	85.6	82.5	1.071	81.3	88	0.56
"	4th	.691	83.0	87.2	8.1	78.8	84.1	81.5	1.043	80.3	89	0.41
"	5th	.741	84.9	91.0	12.2	78.8	85.8	81.5	1.018	79.8	88	0.04
"	6th	.725	85.2	91.5	12.7	78.8	88.3	83.5	1.077	81.5	79	...
"	7th	.689	85.4	91.0	11.2	79.8	88.1	82.5	1.037	80.3	78	...
"	8th	.643	81.4	89.0	9.2	79.8	87.1	81.0	.977	78.5	76	0.05
"	9th	.518	84.7	89.5	9.7	79.8	88.6	82.5	1.030	80.1	77	0.03

The mean 10 A.M. pressure of the seven days ... 29.636

The mean temperature of the seven days ... 84.5

The extreme variation of temperature ... 12.7

The maximum temperature ... 91.5

The mean 10 A.M. relative humidity of the seven days ... 81

The total fall of rain from 3rd to 9th September 1893 ... 1.09

The daily mean temperatures are the crude means of maximum and minimum temperatures.

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA,

The 11th September 1893.

**Results of the Meteorological Observations taken at the Alipore Observatory from  
3rd to 9th September 1893.**

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Falt.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
Sept.	3rd	151.5	1.7	29.436	82.7	87.6	8.9	78.7	80.4	1.008	79.5	90	E by N, ESE and SSE.	240	0.21	Chiefly cloudy, o, g, d, p, t.
"	4th	129.9	Nil	616	82.6	86.6	7.9	78.7	80.4	1.009	79.5	90	SE by E and ESE	100	0.02	Cloudy, o, g, d, t.
"	5th	155.7	5.4	673	84.0	88.6	9.7	78.9	80.9	1.015	79.7	87	ESE and SSE ..	42	Nil	Partially cloudy, d.
"	6th	152.8	8.3	662	85.0	89.6	11.1	78.5	81.1	1.012	79.6	84	SSE and S ...	51	"	Partially cloudy, o, d.
"	7th	153.4	1.1	641	85.0	89.4	9.4	80.0	81.4	1.025	80.0	85	SSW and S ...	70	"	Chiefly cloudy, lr.
"	8th	134.6	1.7	570	83.5	87.9	8.4	79.5	79.5	0.955	77.8	83	S and NE by E ..	75	0.01	Chiefly cloudy, o, d.
"	9th	158.5	6.5	489	83.0	88.5	8.5	80.0	79.5	0.962	78.1	85	ENE and ESE ...	98	Nil	Partially cloudy, o.

The mean pressure of the seven days	...	...	...	Inches.	29.584
The average pressure of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	29.649
The total number of hours of bright sunshine	...	...	...	Hours.	24.7
The maximum possible number of hours of sunshine	...	...	...	...	87.1
The mean temperature of the seven days	...	...	...	...	83.7
The average temperature of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	83.3
The extreme variation of temperature	...	...	...	...	11.1
The maximum temperature	...	...	...	...	89.6
The highest velocity of the wind in one hour	...	...	...	Miles.	18
The highest pressure of wind on one square foot	...	...	...	lbs.	?
The mean relative humidity	...	...	...	%	86
The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	86
The total fall of rain from 3rd to 9th September 1893	...	...	...	Inches.	0.24
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	3.31
The total fall from 1st January to 9th September 1893	...	...	...	...	69.77
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	52.24

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o, overcast; g, gloomy; d, drizzling rain; p, passing temporary showers; t, thunder; lr, lightning reflection; Δ, dew.

## CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 9th September 1893, as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 9TH SEPTEMBER 1893.			WEEK ENDING SATURDAY, THE 10TH SEPTEMBER 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ...	528	83,075	1,034	286	62,250	1,066
Jute ...	102	42,150	749	161	52,820	960
Firewood ...	94	55,100	756	109	55,150	805
Other articles ...	655	1,53,300	2,330	889	1,86,085	2,714
Total ...	1,379	3,33,625	4,869	1,365	3,56,055	5,545

## BENGAL CENTRAL RAILWAY.

*Abstract of principal commodities carried over the Bengal Central Railway during the month of June 1893, as compared with the same month of the previous year.*

STAPLES.	1893.		1892.		TOTAL.		Increase.	Decrease.
	Up.	Down.	Up.	Down.	1893.	1892.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Coal ...	2,208	.....	1,444	.....	2,523*	2,204*	319	.....
Cotton, raw ...	.....	.....	.....	18	.....	18	.....	18
Cotton twist and yarn—								
1.—European ...								
2.—Indian ...								
Cotton piece-goods—								
1.—European—								
a.—In bales and bundles ...	377	13	387	1	300	388	2	.....
b.—In boxes ...								
2.—Indian—								
a.—In bales and bundles ...								
b.—In boxes ...								
Grains—								
2.—Rice ...	45	102	19	75	147	94	53	.....
5.—Others ...	55	379	43	60	434	112	322	.....
Hides and skins—								
1.—Hides of cattle—								
a.—Dressed ...								
b.—Undressed ...		47	.....	37	47	37	10	.....
2.—Skins of sheep, &c.—								
a.—Dressed ...								
b.—Undressed ...								
Jute—								
1.—Raw—								
b.—Unscrowed ...	18	120	9	17	120	17	103	.....
2.—Gunny bags and cloth ...		1	.....	10	19	19	.....	.....
Metals—								
1.—Copper, unwrought ...								
2.—Brass, unwrought ...								
3.—Brass and copper, wrought ...	86	10	180	16	105	196	.....	91
4.—Iron ...								
5.—Tin ...								
6.—Others ...								
Oils—								
2.—Kerosine ...	155	.....	248	.....	155	248	.....	93
3.—Others ...	193	.....	121	.....	193	121	72	.....
Oil-seeds—								
1.—Linseed ...								
2.—Rape and mustard ...								
3.—Til or gingelly ...								
4.—Niger ...	187	437	142	389	624	522	102	.....
5.—Castor ...								
6.—Poppy ...								
7.—Others ...								
Provisions—								
2.—Hut-nuts ...	146	801	.....	911	801	911	.....	110
3.—Others ...	.....	83	46	59	234	105	129	.....
Railway plant and rolling-stock ...	310	.....	353	.....	624	502	.....	52
Salt ...								
Sugar—								
1.—Drained ...	34	1,183	86	679	1,219	715	504	.....
2.—Undrained ...	133	68	70	39	101	179	13	.....
Tobacco ...								
All other articles of merchandise—								
1.—Unmanufactured ...	924	326	774	684	1,950	1,458	.....	296
2.—Manufactured ...								
Total ...	4,873	3,574	5,931	3,061	8,824	7,800	1,020	665

\* Includes 315 tons and 710 tons of coal during 1893 and 1892, respectively, carried for Revenue for which no "Up" and "Down" register maintained.

† Railway plant and rolling-stock 62 tons and 155 tons for the years 1893 and 1892, respectively, for which no "Up" and "Down" register maintained.

*Statement of principal commodities carried over the Bengal Central Railway during the month of June 1893.*

## INCREASES.

Tons.  
504

Sugar

Jhikargachi contributed nearly the whole of this increase.  
The increase and decrease in all other commodities are due to ordinary fluctuation of traffic and call for no special remark.

JAMES SHAW,  
for Examiner of Accounts.

CALCUTTA, the 25th September 1893.



## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 2nd September 1893, on 1,610½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	275,029	Rs. A. P. 2,59,933 4 0	Mds. S. 26,07,151 10	Rs. A. P. 5,38,536 12 0	Rs. A. P. 13,629 5 0	Rs. A. P. 8,12,068 5 0	75,490½	102,067½	177,557½
Or per mile of railway ...	...	161 6 4	...	336 6 3	8 7 5	504 4 0	...	...	...
For previous 8½ weeks of half-year ...	2,378,933	25,95,667 8 0	1,73,29,777 30	38,00,596 15 0	1,14,326 7 0	65,10,890 14 0	634,481½	754,178½	1,388,660
Total for 9½ weeks ...	2,653,961	28,55,699 12 0	1,99,36,899 0	43,39,133 11 0	1,27,953 12 0	73,22,989 3 0	699,972½	856,260½	1,556,233
COMPARISON.									
Total for corresponding week of previous year ...	230,799½	2,58,770 6 11	23,54,512 0	5,36,210 10 7	15,161 6 1	8,10,142 1 7	74,648	91,223	165,871
Per mile of railway corresponding week of previous year ...	...	160 10 10	...	331 15 2	9 6 7	503 0 7	...	...	...
Total for corresponding 9½ weeks of previous year ...	2,361,747½	22,01,038 12 0	2,04,53,183 20	43,86,351 3 1	1,40,591 5 11	67,37,011 5 0	661,435	843,673	1,505,107

## TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 2nd September 1893, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	16,514	Rs. A. P. 4,012 6 0	Mds. S. 9,604 30	Rs. A. P. 237 12 0	Rs. A. P. 9 0 0	Rs. A. P. 4,850 2 0	907	61	968
Or per mile of railway ...	...	180 5 4	...	15 2 10	0 6 6	195 14 8	...	...	...
For previous 8½ weeks of half-year ...	*159,371	*33,871 3 0	175,674 30	12,278 10 0	174 0 0	36,223 13 0	7,351	615	7,966
Total for 9½ weeks ...	155,885	37,883 9 0	85,339 10	2,616 6 0	83 0 0	40,562 15 0	8,258	676	8,934
COMPARISON.									
Total for corresponding week of previous year ...	15,555	3,812 11 2	4,993 30	142 0 0	8 11 9	3,963 6 11	910	58	968
Per mile of railway corresponding week of previous year ...	...	171 5 9	...	6 6 1	0 6 3	178 2 1	...	...	...
Total for corresponding 9½ weeks of previous year ...	174,133½	41,960 13 11	82,801 30	1,991 0 0	73 1 3	43,925 5 2	8,539	546	9,085

\* Added number of passengers 1,536 and Rs. 399 on account of difference between the approximate and audited figures for the week ended 29th July 1893.  
† Added maunds 10 and " 2  
‡ Deducted " 9

## DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for week ended 2nd September 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	*18,838	Rs. A. P. *13,776 5 0	Mds. S. 42,133 20	Rs. A. P. 6,588 15 0	Rs. A. P. 28 0 0	Rs. A. P. 19,365 4 0	6,241	2,785	9,026
Or per mile of railway ...	...	79 2 6	...	40 15 3	0 2 0	120 2 6	...	...	...
For previous 8½ weeks of half-year ...	170,797	11,18,396 13 0	13,78,475 10	134,674 11 0	1253 0 0	1,70,234 8 0	46,863	32,193	79,056
Total for 9½ weeks ...	189,635	1,23,173 2 0	4,30,597 30	61,161 10 0	281 0 0	1,80,617 12 0	56,124	34,918	91,042
COMPARISON.									
Total for corresponding week of previous year ...	17,189	11,051 10 8	29,442 0	4,842 11 0	46 10 6	15,941 5 2	6,176	3,441	9,617
Per mile of railway corresponding week of previous year ...	...	68 7 7	...	30 0 1	0 4 3	98 12 4	...	...	...
Total for corresponding 9½ weeks of previous year ...	163,546½	1,10,849 7 0	3,39,230 20	54,759 0 6	371 0 3	1,65,979 7 9	59,748	33,327	93,075

\* The increase occurred principally at Delhi, Panipat, Karnal, Umballa, and Kalka.  
† Added number of passengers 2,464 and Rs. 1,130 on account of difference between the approximate and audited figures for the week ended 29th July 1893.  
‡ Deducted maunds 14 and deducted " 14

## BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIBHUT STATE RAILWAY.)

Approximate return of traffic for the week ending 2nd September 1893, on 756 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the period on 756 miles open ... ..	85,500	Rs. 31,050	Mds. 2,25,700	Rs. 25,590	Rs. 9,000	Rs. 69,740	12,026	15,419	27,445
Or per mile of railway ... ..	113.10	41.07	290.95	33.77	11.91	92.35	...	...	...
For previous 8½ weeks of half-year ... ..	785,358	2,80,684	17,37,094	2,59,190	85,110	6,04,084	108,755	124,445	233,200
Total for 9½ weeks ... ..	880,758	3,11,734	19,64,784	2,89,880	94,110	6,79,724	118,779	139,864	258,643
COMPARISON.									
Total for corresponding period of previous year on 756 miles open ... ..	84,322	28,324	2,07,204	24,823	7,340	62,557	13,725	13,876	27,601
Per mile of corresponding week of previous year ... ..	111.55	37.61	274.44	35.53	9.73	82.93	...	...	...
Total to corresponding date of previous year ... ..	765,971	2,75,898	22,88,584	3,04,476	73,223	6,53,537	124,166	144,104	268,270

\* Includes audited figures up to 15th July 1893.

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

	Rs.	A.	P.
Approximate earnings for the week ending 26th August 1893 ... ..	9,623	0	0
Corresponding period of 1892 ... ..	11,009	0	0
Decrease ... ..	1,386	0	0
Receipts per mile for the week ending 26th August 1893 ... ..	188	11	0
Corresponding period of 1892 ... ..	215	13	10
Decrease ... ..	27	2	10
Receipts from 1st July to 26th August 1893 ... ..	85,883	0	0
Corresponding period of 1892 ... ..	87,229	0	0
Decrease ... ..	1,346	0	0

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

	Rs.	A.	P.
Approximate earnings for the week ending 2nd September 1893 ... ..	12,039	0	0
Corresponding period of 1892 ... ..	10,521	0	0
Increase ... ..	1,518	0	0
Receipts per mile for the week ending 2nd September 1893 ... ..	286	0	11
Corresponding period of 1892 ... ..	208	4	8
Increase ... ..	29	12	3
Receipts from 1st July to 2nd September 1893 ... ..	97,923	0	0
Corresponding period of 1892 ... ..	97,760	0	0
Increase ... ..	172	0	0





# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, SEPTEMBER 20, 1893.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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## RESOLUTION ON THE REPORT OF THE ADMINISTRATION OF THE STAMP DEPARTMENT DURING THE THREE YEARS ENDING THE 31ST MARCH 1893.

FINANCIAL DEPARTMENT—SEPARATE REVENUE—No. 961—F

*Darjeeling, the 15th September 1893.*

### RESOLUTION.

READ—

The Report of the Board of Revenue on the Administration of the Stamp Department during the three years ending 31st March 1893

This is the second report submitted under the triennial system, statistical information with brief explanatory notes having been supplied for the two previous years 1890-91 and 1891-92. The revenue for the period under review was collected under the Indian Stamp Act I of 1879 and the Court Fees Act VII of 1870, as modified by subsequent enactments. The changes made during the past three years in the law and in the rules issued by Government, though numerous and important from a departmental point of view, are not of sufficient general interest to call for special notice in this place.

2. The financial results of the administration of the Stamp Department during the past three years, as well as during the previous triennium, are shown in the following table, the figures being based on accounts furnished by the Accountant-General:—

YEAR.	STAMPS UNDER ACT I OF 1870.			COURT FEES UNDER ACT VII OF 1870.			TOTAL.		
	Receipts.	Refunds and other charges.	Net revenue.	Receipts.	Refunds and other charges.	Net revenue.	Receipts.	Charges.	Net revenue.
1	2	3	4	5	6	7	8	9	10
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Average of three years 1887-88 to 1889-90 ... ..	37,30,357	2,73,676	34,56,681	1,02,33,000	3,47,208	98,85,792	1,30,64,206	6,20,975	1,33,43,201
1890-91 ... ..	41,17,887	2,84,110	38,33,777	1,01,88,707	3,35,673	98,53,034	1,43,66,504	6,19,732	1,37,46,772
1891-92 ... ..	41,47,812	2,39,043	39,08,769	1,09,50,620	3,43,922	1,06,06,698	1,51,00,402	5,82,566	1,45,17,836
1892-93 ... ..	43,47,067	2,75,506	40,71,561	1,11,97,772	3,61,949	1,08,35,823	1,55,44,820	6,37,365	1,49,07,455
Average of three years 1890-91 to 1892-93 ... ..	42,04,924	2,60,000	39,38,888	1,07,79,093	3,47,128	1,04,31,965	1,49,83,061	6,13,214	1,43,70,747

The gross average annual receipts under the two Acts during the triennial period under review amounted to Rs. 1,49,83,961, against Rs. 1,39,64,266 in the previous corresponding period, showing an increase of Rs. 10,19,695. The increase occurred in both classes of stamps—judicial and non-judicial. As in other years, the receipts during 1892-93 were highest in Calcutta (Rs. 22,96,940), which provided more than one-seventh of all the stamp revenue in Bengal, and lowest in Singhbhum (Rs. 17,890). Mymensingh and Dacca contributed more than 7 lakhs each, the 24-Parganas nearly 6½ lakhs, Backergunge over 6 lakhs, and Midnapore and Tippera nearly 5½ lakhs each. The general incidence of stamp revenue on the population was 3 annas and 4 pies per head.

3. The following table shows in greater detail the receipts from sales of the different descriptions of stamps during the triennial period from 1887-88 to 1889-90, and the similar period under review. The figures which have been compiled by the Superintendent of Stamps, however, differ from those given in the previous statement, inasmuch as they do not include miscellaneous receipts under the Indian Stamp Act, or receipts from the sale of plain paper prescribed by the High Court for use with court-fee stamps under the Court Fees Act. They show stamp sales only; but apart from these differences, there is a small discrepancy, amounting to Rs. 19,632, with the Accountant-General's figures, which is under adjustment.

YEAR.	SALES OF NON-JUDICIAL STAMPS USED UNDER THE INDIAN STAMP ACT.										SALES OF JUDICIAL STAMPS OR STAMPS USED UNDER THE COURT FEES ACT.			Total of both kinds of stamps.
	Impressed sheets, including revenue stamps, and stamps of other kinds.	Impressed labels.	Receipt or one-anna revenue stamps.	Share transfer stamps.	Foreign bill stamps.	Handi or bills-of-exchange stamps.	Notarial stamps.	Advocate, valuer, and attorney stamps.	Impressed one-anna stamps for cheques, bills, &c.	Total of non-judicial stamps.	Adhesive and impressed court-fee stamps.	Stamps for copies.	Total of court-fee stamps.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Average of three years 1887-88 to 1889-90 ... ..	25,07,050	6,16,870	2,30,034	31,714	48,343	1,08,880	3,140	11,917	48,250	30,60,725	24,75,068	5,66,883	1,00,41,061	1,37,02,076
1890-91 ... ..	26,00,471	7,41,403	2,61,977	90,420	43,783	1,03,653	3,008	7,600	61,749	30,52,058	24,36,478	4,96,225	99,91,703	1,30,44,013
1891-92 ... ..	28,53,780	8,06,654	2,92,327	21,206	40,310	1,04,653	2,780	19,500	51,607	40,07,694	1,61,12,845	5,40,757	1,07,31,602	1,47,03,296
1892-93 ... ..	30,80,457	6,59,825	3,00,803	27,007	30,464	1,12,871	2,661	18,750	55,710	48,14,638	1,04,09,653	5,61,076	1,09,70,728	1,58,85,366
Average of three years 1890-91 to 1892-93 ... ..	28,07,905	7,09,461	2,88,036	39,574	40,165	1,06,858	2,815	15,588	57,342	41,00,703	1,00,32,689	5,53,686	1,05,65,344	1,46,78,107

As compared with the triennial period between 1887-88 and 1889-90, all classes of stamps with the exception of Foreign Bill, Hundi and Notarial stamps, and stamps for copies, contributed to the increase in the sales during the period under review.

4. The improvement was most marked in the case of impressed sheets, which are the most important of non-judicial stamps.

Non-judicial stamps. Forty-three districts participated in this improvement, the largest increase (Rs. 18,000) being observed in Backergunge. The improvement is generally attributed to the execution of a larger number of documents, such as deeds of sale, mortgages, &c., consequent on the failure of crops in certain districts. The increase in impressed labels, which are in use only in Calcutta, is normal. There was an improvement of nearly Rs. 60,000 per annum in the income from one-anna revenue stamps, commonly known as receipt stamps, which may be ascribed to the facilities afforded for obtaining them through the agency of the post-office, and to the stricter administration of the law which had hitherto often been evaded with ease and impunity. A fresh cause at work was the action of the Board in inviting the attention of local officers to the standing orders under which assessors of income-tax are vested with powers to impound instruments not duly stamped. The Lieutenant-Governor trusts that the Board will not relax their efforts to protect this branch of the revenue. Another class of instruments, on which the stamp duty is said to be frequently evaded, is the Hundi, the result being attributed to defects in the stamp law. The clauses that affected the sales of different kinds of stamps in different districts are given in detail in the Board's report, and need not be repeated here.

5. Under the head judicial stamps are included adhesive and impressed court-free stamps, High Court service stamps, Calcutta Small Cause Court stamps, and stamps for copies. The total average income during the period under review amounted to Rs. 1,05,65,344 per annum, or an increase of Rs. 5,23,393 over the previous corresponding period. The extent to which each description of stamps contributed towards the average annual revenue is exhibited in the following table:—

	Rs.
Court-fee stamps	96,72,718
High Court service	9,500
Calcutta Small Cause Court	3,50,440
Stamps for copies	5,32,686
Total	1,05,65,344

Thirty seven districts show an increase and nine a decrease. The largest increases were in Calcutta (Rs. 1,22,124); Nadia (Rs. 41,389); Faridpur (Rs. 40,702); Burdwan (Rs. 32,795); Rangpur (Rs. 25,399); Patna (Rs. 23,342), and 24 Parganas (Rs. 21,734). The largest decrease occurred in Howrah (Rs. 5,533), and Shahabad (Rs. 5,520). An increase or decrease in the number and the value of suits is the main cause to which the fluctuations in the sales of court-fee stamps may be attributed. It is significant that Singbhum and Manbhum, to both of which districts railway communication has been effectively extended during the period under review, show a very large increase in stamp revenue, both judicial and non-judicial. Taking each denomination of court-fee stamps sold during the period under review, there was an increase of over 3½ lakhs in the sale of eight-anna stamps, 1¼ lakhs each in that of one-anna and one-rupee stamps, nearly 1 lakh in that of four-anna stamps, while on the other hand there was a decrease of nearly 1½ lakhs in that of twelve-anna stamps, Rs. 34,000 in that of two-rupee stamps, and Rs. 17,000 in that of four-rupee stamps.

6. The following statement shows the number of cases in which deficient stamp duty and penalty were levied by the Civil and Revenue Courts, and the amount realized

Levy of penalties.

during the period under review as compared with the previous corresponding period:—

YEAR.	NUMBER OF CASES.		AMOUNT OF DUTY AND PENALTY REALIZED		TOTAL.	
	Civil courts.	Revenue officers.	By civil courts.	By revenue officers.	Cases.	Amount.
			Rs.	Rs.		Rs.
Average of three years 1887-88 to 1889-90 .. .. .	1,308	2,139	10,728	22,930	3,447	33,658
1890-91 .. .. .	1,218	1,986	11,721	28,992	3,201	40,264
1891-92 .. .. .	1,370	2,298	11,653	21,095	3,668	35,748
1892-93 .. .. .	1,417	2,446	11,174	22,810	3,862	33,984
Average of three years 1890-91 to 1892-93 .. .. .	1,333	2,241	11,365	25,314	3,574	36,679
Average increase in the triennium under review compared with the preceding triennium .. .. .	25	102	637	2,384	127	3,021

7. The average number of prosecutions instituted annually for various breaches of the stamp law was 646 against 815 in the previous triennium. The average number of persons brought to trial was 740 against 929, of convictions 584 against 739, and of acquittals 125 against 116. The average amount of fines imposed by Magistrates was Rs. 5,439 against Rs. 6,658. The average amount of rewards paid was Rs. 1,339, against Rs. 1,751 in the preceding period. The fact is brought to the notice of Government by the Board that during the three years covered by the report, not a single rupee was paid as reward in twenty-eight out of the forty-five districts in the province, viz., in the whole of the Orissa and Chota Nagpur Divisions, in four districts of each of the Burdwan and Presidency Divisions, in five districts of the Rajshahi Division, in two districts of the Chittagong Division, in three districts of the Patna Division, and in three districts of the Bhagalpur Division. These results, as the Board remark, are not creditable to the district officers concerned, for it should be borne in mind that activity in the detection of evasions of the law must largely depend on the encouragement afforded by a liberal distribution of rewards, and where these are awarded with a sparing hand, it is almost certain that the stamp law will be broken with impunity, because no one will be at the trouble of bringing the offence to notice.

8. Several cases of fraud and defalcation were detected during the period under review. One of the most serious of these occurred in the subdivisional treasury at Bishenpur in the district of Bankura. Court-fee stamps to the value of Rs. 3,598, and impressed non-judicial stamps to the value of Rs. 32, were abstracted. The enquiry disclosed a defect in the system of keeping accounts and returns, and orders have been issued to place matters on a better footing. The greater part of the loss is being made good by deductions from the pay of those in fault. Another extensive series of frauds was disclosed in the Subordinate Judge's Court at Jessore, which consisted in removing both punched and unpunched stamps from the records, substituting punched for unpunched stamps, and misappropriating the latter. The guilty parties have been punished.

9. The Lieutenant-Governor desires to thank the Board of Revenue for their careful administration of the Stamp Department during the period covered by the report. The names of the officers favourably mentioned by the Board will be noted in the Appointment Department.

By order of the Lieutenant-Governor of Bengal,

J. A. BOURDILLON,

Offg. Secy. to the Govt. of Bengal.

**RESOLUTION ON THE TRIENNIAL REPORT ON THE  
ADMINISTRATION OF THE REGISTRATION  
DEPARTMENT IN BENGAL FOR THE  
YEARS 1890-91, 1891-92 AND 1892-93.**

No. 57P.D.

**RESOLUTION.**

REGISTRATION.

*Dated Darjeeling, the 18th September 1893.*

Read—

The Triennial Report on the Administration of the Registration Department for the years 1890-91, 1891-92, and 1892-93.

Read also—

The Triennial Report on the Administration of the Registration Department for the years 1887-88, 1888-89, and 1889-90, and the Resolution of Government recorded thereon.

Read also—

The statistical returns for the years 1890-91 and 1891-92, with the remarks thereon.

The second Triennial Report on the Administration of the Registration Department for the years 1890-91, 1891-92, and 1892-93 has been punctually submitted by the Officiating Inspector-General, Nawab Syed Ameer Hossein, C.I.E. Mr. Holmwood was in charge of the Department during the whole of the triennial period, and he has left notes on points of special importance, which have been embodied in the report now under review.

2. The following table shows the total number of registrations, as well as the receipts and expenditure, and the number of offices open during each year of the triennial period under report as compared with each of the three preceding years :—

YEAR.	NUMBER OF REGISTRATIONS				Total receipts.	Total expenditure.	Surplus.	Number of Registration offices.
	Affecting immoveable property.		Other registrations.	Total.				
	Compulsory.	Optional.						
1887-88 ... ..	495,509	65,464	120,930	717,903	Rs 10,21,082	Rs 5,70,200	Rs 4,42,716	301
1888-89 ... ..	534,510	115,470	135,483	785,463	10,98,472	5,99,176	4,96,296	304
1889-90 ... ..	594,933	147,191	161,484	863,608	11,98,801	6,27,434	5,71,367	307
Totals ... ..	1,625,042	328,125	418,897	2,395,063	33,14,255	18,05,876	15,08,379	304 average.
1890-91 ... ..	600,413	148,755	148,148	897,316	12,40,481	6,29,359	6,11,122	322
1891-92 ... ..	650,096	173,701	155,796	979,593	13,35,736	6,84,204	6,49,532	323
1892-93 ... ..	732,269	207,393	102,607	1,102,321	14,35,541	7,26,771	7,08,770	346
Totals ... ..	1,981,009	529,851	406,551	2,917,411	40,09,758	20,40,334	19,69,424	333 average.
Increase ... ..	366,656	173,736	58,655	599,047	6,85,503	2,31,458	4,61,045	20
Decrease ... ..	...	...	...	...	...	...	...	...

The most noticeable feature in the above statement is the steady advance in the number of registrations of all kinds during the last three years. This is attributed by many District Registrars to the badness of the seasons and the consequent scarcity, but the explanation is one which is brought up year after year to account for any fluctuations, however slight, that may have occurred, and is not sufficient to explain the steady increase in the work of the department. As pointed out by Mr. Holmwood, years of real scarcity have been marked by the increase of small bonds and mortgages, but the total number of registrations and the actual receipts have not been materially affected by them. The Lieutenant-Governor believes that the true explanation lies in the growing confidence of the public in the Registration Department, which every year attracts an increasing proportion of the large number of transactions that may be registered to our offices. The increase in the number of optional registrations, and the

opening of 29 new offices during the last triennial period, are indications of this. The Lieutenant-Governor is glad to observe that the financial condition of the department is satisfactory, and that the surplus at the close of 1892-93 is larger than in any of the preceding years.

3. The number of perpetual leases registered shows a steady increase from 76,390 in 1889-90 to 82,251 in 1890-91, 89,024 in 1891-92, and 90,989 in 1892-93: The increase in 1890-91 and 1891-92 is mainly accounted for by the larger number of registrations of this class in Chittagong, due to the settlement operations in progress in that district. The increase in 1892-93 was not so marked, and in Chittagong there was an actual falling off of 1,553 in the number of perpetual leases registered as compared with the preceding year. The districts in which the greatest number of perpetual leases were registered in 1892-93 are Chittagong 25,970, Faridpur 11,135, Backergunge 8,634, 24-Parganas 7,098, Noakhali 6,073, Jessore 5,879, and Khulna 5,527. These are all the littoral districts of Bengal proper, where there are many grades of tenure-holders between the zamindar and the cultivator, and the profits derived from land are distributed more than in any other part of the province among the masses of the population. The number of permanent leases registered in one year in these seven districts amounts to 70,316. In the seven districts of the Patna Division during the same year only 982 permanent leases were registered, and these figures afford a marked illustration of the difference of the land tenure systems in different parts of this province. In the deltaic tracts, which are the most prosperous portion of Bengal, the interests in land are infinitesimally sub-divided and sublet, but they are mostly fixed and permanent. In Bihar, where the peasantry are worse off than elsewhere, there are middlemen with temporary leases only between the zamindar and raiyat, and fixity of rent and tenure is rarely known. In the deltaic tracts agrarian wealth is distributed in the hands of many until all are comparatively prosperous; in Bihar it is confined to the hands of few, and the masses of the people are steeped in poverty.

4. There was an increase of 66,668 in the total number of leases, other than perpetual, during the last triennial period. In 1890-91 the number fell from 218,515 to 209,726, the decrease being most marked in Central Bengal and North Bihar. In the former it is attributed to the high inundations which led to a failure of the crops, and in the latter to a falling off in the number of *zur-i-peshgi* leases which had been abnormally large in previous years. In 1891-92 and 1892-93 the registrations of temporary leases showed a further increase, the numbers being 219,455 and 239,921 respectively. The increase is attributed to fresh settlements made by landlords with their raiyats, and in a few districts also to the operation of section 85 of the Tenancy Act.

5. The number of instruments of mortgage of the value of Rs. 100 and upwards rose from 77,555 in 1889-90 to 108,214 in 1892-93. The increase is common to most districts, and has kept pace with the general advance in the number of registrations of all kinds. There was a considerable increase in the number of mortgages of less than Rs. 100 in value, the figures for the past year being 185,947 against 130,007 in 1889-90, and 154,840 in 1891-92. The increase last year occurred in almost all districts and is attributed generally to bad harvests, but in Muzaffarpur it is said to have been due to the raiyats of Piprahi in Sitamarhi having been obliged to raise money by means of mortgages in order to carry on litigation with their maliks. In Chittagong many of these documents are said to be mere paper transactions for the sole purpose of showing some sort of right before the Settlement Officer. The number of obligations for payment of money, including bonds, rose from 103,962 in 1889-90 to 108,403 in 1892-93, the largest number of registrations being found among those from Rs. 25 to Rs. 100 in value. It is satisfactory to note that there has been a steady increase in applications for copy and searches, the number having risen from 30,683 in 1889-90 to 36,107, which may be accepted as an indication of the increased efficiency and popularity of the department.

6. As in former years, the number of counterparts largely exceeded the number of leases registered. The following statement (which includes



9. The number of registrations under sections 12 and 18 of the Tenancy Act fell from 26,780 in 1889-90 to 20,391 in 1891-92, and to 20,351 in 1892-93. The system of levying landlord's fees under these sections continues to be as unpopular as ever both with the landlords and tenants—with the former, because they believe that their acceptance of the fee will be construed as an acknowledgment on their part of the status claimed, and with the raiyats, because they are not exempted by the payment of the fee from paying it over again as *salami* in getting their names registered in the zamindar's *sarishta*. The total number of operations under the Tenancy Act during the past year shows an increase in 19 out of the 35 districts in the province. The Lieutenant-Governor has no doubt that, as reported by the Inspector-General and the majority of the District Officers, the provisions of the Tenancy Act have indirectly led to an increase of registrations, especially in sales and mortgages of raiyati-holdings.

10. The number of documents impounded by the registering officers during the past year was 2,091, of which 1,625 were declared by the Collector to be insufficiently stamped, and 227 were declared as properly stamped. Excluding 55 prosecutions on account of documents insufficiently stamped, the total number of prosecutions instituted was 88 as against 83 in 1889-90 and 70 in 1891-92. The number of persons put on trial in these 88 cases was 147, of whom 24 were acquitted and 69 convicted, and the remainder were pending trial at the close of the year. The total receipts of the Department rose from Rs. 11,89,840 in 1889-90 to Rs. 13,33,735 in 1891-92, and Rs. 14,27,000 in 1892-93. The surplus of receipts over expenditure for the same years increased from Rs. 5,71,366 to Rs. 6,49,532 and Rs. 7,08,770 respectively.

11. The Officiating Lieutenant-Governor is glad to observe that the number of inspections made during 1892-93 exceeds the number made in any of the preceding six years. In addition to one inspection made by Sir Charles Elliott, and 33 by the Commissioners of Divisions, the number for the past year was 1,039. The number of inspections made by Special Sub-Registrars, rose from 300 in 1891-92 to 414, but this is partly accounted for by an increase in the number of Special Sub-Registrars appointed. In the districts of Mymensingh, 24-Parganas, Muzaffarpur, and Murshidabad the number of inspections made by Special Sub-Registrars fell far below the required standard. In accordance with a proposal made last year by the Inspector-General, the Lieutenant-Governor has directed that failure in inspection duty without adequate reason will be followed by proportionate loss of pay, and the defaulting Sub-Registrars have been called upon to show cause why this order should not be enforced in their case.

12. In an interesting note which has been included in the report, Mr. Holmwood has enumerated the administrative changes that have been introduced by him during the last triennial period. Among the most important of these are the opening of 29 new offices, and the appointment of additional Special Sub-Registrars, which is reported to have resulted in a marked improvement in the work both of the sadar and rural offices. Wherever possible, the readjustment of Hindu and Muhammadan Sub-Registrars with reference to the classes of the community which preponderate in the tracts of country concerned has been carried out, and the rules and circulars of the Department have been revised and incorporated in a complete manual. Increased accommodation has been provided at various head-quarters, and at Calcutta the appointment of an additional Sub-Registrar as well as of several ministerial officers has been sanctioned. Since the close of the year the sanction of the Government of India has been obtained to certain alterations in the table of fees under Act III of 1877. The *ad valorem* charge for documents under the value of Rs. 50 has now been reduced to 8 annas, and it is believed that this will lead to an increase in the number of registrations, especially of documents of small value, and will eventually prove a gain financially to the Department. The proposal to introduce Sir William Herschel's system for securing the identification of parties and their witnesses in the registration of deeds by means of finger prints was sanctioned in May last as an experimental measure in the districts of Calcutta, the 24-Parganas and Hooghly, and the Inspector-General has been asked to submit a report at the end of the present year on the working of the scheme.



13. The following table shows the working of Act I (B.C.) of 1876 for the voluntary registration of Muhammadan marriages and divorces during the 17 years since its introduction:—

YEARS.	Number of districts in which the Act was in force.	Number of offices open on the 31st March.	Number of marriages registered.	Number of divorces other than <i>kholas</i> registered.	Number of <i>kholas</i> registered.	Total number of ceremonies registered.
1876-77	14	77	2,555	402	161	3,188
1877-78	14	103	7,391	1,404	595	9,390
1878-79	14	103	8,161	1,705	771	10,637
1879-80	14	107	7,137	2,097	623	9,857
1880-81	14	106	5,777	1,874	779	8,430
1881-82	14	107	4,951	2,230	667	7,857
1882-83	14	112	5,068	2,247	766	8,081
1883-84	14	112	4,273	2,315	895	7,483
1884-85	14	112	3,913	2,540	957	7,410
1885-86	14	112	3,993	2,422	1,109	7,524
1886-87	14	112	3,926	2,179	1,147	7,252
1887-88	14	112	4,100	2,478	1,090	7,668
1888-89	14	113	4,527	2,819	1,113	8,459
1889-90	14	113	3,959	3,119	1,137	8,215
1890-91	14	115	4,063	3,154	1,234	8,451
1891-92	19	151	5,442	3,260	1,474	10,176
1892-93	19	151	5,780	3,853	1,542	12,175

From the above statement it will be seen that there was a satisfactory increase of 1,338 in the number of marriages registered last year, while the total number of ceremonies registered was larger than in any year since the introduction of the Act. The increase was shared by 13 districts, and in three only, viz. in Chittagong, Bogra, and Noakhali, was there a decrease. The Inspector-General looks upon the general results of the year as satisfactory, and he believes that in the majority of districts Muhammadan Registrars are gradually gaining popularity, and that, where they have failed to do so, the failure is due either to their own action or to the active opposition of interested headmen and zamindars. The introduction of the Kazis' Act in all districts in which Act I (B.C.) of 1876 is in force is said to have had but little effect on the registration of marriages under that Act, and only a few marriages have been solemnized by Kazis or their Naibs appointed under Act XII of 1880. The Inspector-General does not believe that the Act will ever gain much ground as the machinery is not popular, and it is generally reported that the services of the village mollahs are preferred to those of the Kazis appointed by Government.

14. Mr. Hohnwood held the office of Inspector-General from the 16th March 1890 up to the 17th May 1893, on which date he made over charge to his successor. His administration has been highly successful, and the Lieutenant-Governor is glad to place on record his appreciation of his efficient control of the Department. The names of the officers specially commended by the Inspector-General will be noted in the Appointment Department.

ORDER.—Ordered that a copy of this Resolution, be forwarded to the Inspector-General of Registration for information and guidance.

Ordered also that extract paragraph 9 of the Resolution, and extract paragraphs 48 to 61 and 76(11) of the Report, be forwarded to the Revenue Department for information.

Ordered also that a copy of the Resolution, together with a copy of the Report, be submitted to the Government of India, in the Home Department, for information.

Ordered also that the Resolution be published in the *Calcutta Gazette*.

By order of the Lieutenant-Governor of Bengal,

H. J. S. COTTON,

Chief Secretary to the Govt. of Bengal.

**RESOLUTION ON THE ADMINISTRATION REPORT OF THE  
COMMISSIONERS OF THE PORT OF CHITTAGONG  
FOR THE YEAR 1892-93.**

No. 2168 Marine.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

*Dated Calcutta, the 16th September 1893.*

**RESOLUTION.**

READ—

The Administration Report of the Commissioners of the Port of Chittagong for the year 1892-93.

Financial.

THE financial position of the Chittagong Port Fund on the 31st March 1893 is shown in the following statement:—

	Rs.	A.	P.		Rs.	A.	P.
Opening balance on the 1st April 1892 ..	77,064	13	9	Expenditure during the year 1892-93 ..	1,09,024	5	10
Receipts during the year ..	70,183	5	0	Balance on the 31st March 1893 ..	38,223	12	11
<b>TOTAL ..</b>	<b>1,47,248</b>	<b>2</b>	<b>9</b>	<b>TOTAL ..</b>	<b>1,47,248</b>	<b>2</b>	<b>9</b>

2. The subjoined table shows the number and tonnage of the vessels which visited the port during the year, as compared with the figures of the two previous years:—

Shipping.

		1890-91.		1891-92.		1892-93.	
		Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
European vessels trading with foreign ports.	Entered ..	42	62,042	40	41,348	26	39,926
	Cleared ..	37	57,288	34	45,469	27	41,028
Native craft trading with foreign ports.	Entered ..	.....	.....	1	89	11	1,824
	Cleared ..	1	143	2	225	2	187
Vessels trading with home ports.	Entered ..	951	163,376	717	204,629	734	211,362
	Cleared ..	946	164,078	734	202,086	762	213,357

Of the 29 vessels which cleared for foreign ports during the year under review, 14 were bound for the United Kingdom, 3 for Ceylon, 3 for Mauritius, 1 for the Maldives, 2 for New York, 4 for Trinidad, 1 for Barcelona, and 1 for Réunion. Those for the United Kingdom, New York and Barcelona, numbering in all 17, carried jute, while the remaining 12 carried rice. The number of vessels that cleared during the previous year with jute was 19, and with rice 17.

3. The total value of the foreign trade during the year was Rs. 88,31,389, of which only Rs. 4,29,849 were under imports.

Foreign trade.

The nature of the trade will appear from the following statement, which shows a decrease, compared with the previous year, of Rs. 6,22,503 :—

	1891-92.		1892-93.		INCREASE.		DECREASE.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
<i>Exports.</i>		Rs.		Rs.		Rs.		Rs.
Rice ... .. Cwt.	265,467	12,46,407	172,321	9,08,839	...	...	93,166	3,36,028
Jute ... .. "	934,053	76,10,134	950,993	74,37,597	10,940	...	...	1,72,757
Tea ... .. lb.	197,404	1,07,711	108,368	52,443	...	...	94,096	55,268
Tobacco ... ..	10,080	1,328	10,168	1,482	82	154	...	...
All other articles of merchandise.	...	3,441	...	1,179	...	...	...	2,262
<b>Total ...</b>	...	89,68,301	...	84,01,540	...	154	...	5,08,761
<i>Imports.</i>								
Oils ... ..	...	3,21,440	...	1,08,001	...	...	...	2,13,449
Salt ... .. Tons	7,330	1,45,271	14,205	2,53,130	...	137,850	...	...
All other articles ... ..	...	18,871	...	38,718	...	19,847	...	...
<b>Total ...</b>	...	4,65,591	...	4,29,849	...	...	...	55,742
<b>Total Foreign Trade ...</b>	...	94,33,892	...	88,31,389	...	...	...	6,22,503

4. In the coasting trade, both the exports and the imports decreased, the total decrease as compared with the previous year amounting to Rs. 13,22,583.

Coasting trade.

The details of this trade are given in the following statement :—

EXPORTS.		1891-92.	1892-93.	Increase.	Decrease.
		Rs.	Rs.	Rs.	Rs.
Apparel, &c. ... ..	...	17,795	24,423	6,628	...
Caoutchouc ... ..	...	75	1	...	74
Cotton, raw ... ..	...	4,57,434	5,81,129	1,23,695	...
Feathers ... ..	...	34,875	10,480	...	24,395
Grain, paddy ... ..	...	4,99,053	3,06,846	...	1,92,207
Rice ... ..	...	12,28,161	3,11,160	...	9,17,001
Other sorts ... ..	...	5,371	1,084	...	4,287
Hides and skins ... ..	...	2,41,058	2,29,145	...	11,913
Ivory ... ..	...	19,895	16,496	...	3,399
Metals ... ..	...	6,542	8,586	2,044	...
Oils ... ..	...	32,083	64,887	32,804	...
Provisions ... ..	...	1,29,299	2,23,859	94,560	...
Salt ... ..	...	2,32,138	1,65,424	...	66,714
Spices ... ..	...	62,370	2,731	...	59,639
Tea ... ..	...	5,04,870	5,07,774	2,904	...
Tobacco ... ..	...	1,164	7,230	6,066	...
All other articles of merchandise	...	6,25,383	4,14,489	...	2,10,894
Treasure ... ..	...	6,59,950	8,11,652	1,51,502	...
<b>TOTAL ...</b>	...	<b>47,57,516</b>	<b>36,87,196</b>	<b>4,20,203</b>	<b>14,90,523</b>

IMPORTS.	1891-92.	1892-93.	Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.
Apparel, &c. ...	1,90,475	2,31,055	40,580	.....
Books ...	22,207	13,186	.....	9,021
Cotton twist and yarn ...	33,493	77,494	44,001	.....
Piece-goods ...	15,46,348	12,60,325	...	2,86,023
Grain, paddy ...	280	39,730	39,450	
Rice ...	63,199	90,282	27,083	
Other sorts ...	62,747	87,521	24,774	
Cutch and gambier ...	12,834	13,796	962	
Hardware and cutlery ...	82,807	83,126	319	
Gunny-bags ...	1,28,949	1,01,314	.....	27,635
Jute ...	68,75,760	65,95,425	.....	2,80,335
Liquors ...	24,468	29,002	4,534	.....
Metals ...	92,207	67,480		24,727
Oils ...	1,29,289	1,22,708		6,581
Provisions ...	1,56,004	2,11,040	55,036	
Seeds ...	31,805	64,436	32,631	
Silk, raw ...	1,380	18,720	17,340	
Spices ...	21,706	96,455	74,749	
Sugar ...	1,66,160	1,86,807	20,647	
Tobacco ...	93,418	81,340	.....	12,078
Wood ...	22,777	40,044	17,267	.....
Wood manufacture ...	2,909	4,434	1,525	.....
All other articles of merchandise	2,44,791	3,01,905	57,114	.....
Treasure ...	88,775	24,900		63,875
<b>Total</b>	<b>1,00,94,788</b>	<b>98,42,525</b>	<b>4,58,012</b>	<b>7,10,275</b>
<b>Total coasting trade</b>	<b>1,48,52,304</b>	<b>1,35,29,721</b>		<b>13,22,583</b>

The quantity of jute shipped at Chittagong during the year under review was 47,549 tons, against 46,293 tons in the previous year.

Jute trade.

The quantity of grain, including rice, exported during the year amounted to 18,699 tons, showing a decrease of 19,676 tons, as compared with that of the previous year. The decrease is principally due to the price of rice on the local market having been very high, which restricted shipments. Of the quantity exported, 10,083 tons went to home ports, and 8,616 tons to foreign ports. The grain exported to home ports consisted chiefly of rice, paddy and pulse. The average value of the rice exported to foreign ports was Rs. 5·2 per cwt.

Grain trade.

7. The total quantity of tea exported amounted to 1,078,457lbs., being 1,83,717lbs. less than that of the previous year. The amount exported to foreign ports was 103,368lbs., showing a decrease of 94,096lbs. as compared with that of last year.

Tea trade.

8. The quantity of salt imported during the year was 1,4205 tons, showing an increase of 6,469 tons on that of the previous year. The increase is due to a larger importation on account of the smallness of the stock at the commencement of the year. The salt transported to Narainganj was less than that of the previous year, as larger supplies were brought from Calcutta, where the market was cheaper.

Salt trade.

9. The imports of oil from foreign ports decreased in value by Rs. 2,13,448, and those from home ports by Rs. 6,581. The total value of oil imported was Rs. 2,30,709, while the value of the exports amounted to Rs. 64,887 only. The total value of mineral oil imported was Rs. 1,33,199.

Oils.

10. The value of piece-goods imported from home ports shows a decrease of Rs. 2,86,023. The value of sugar rose by Rs. 20,647.

Piece-goods and other articles imported from home ports.

11. Amongst the articles exported to home ports, cotton, oils and provisions Cotton, oils, &c., exported to show increases of Rs. 1,23,895, Rs. 32,304, and home ports. Rs. 94,560, respectively. Salt and spices, however, show decreases of Rs. 66,714 and Rs. 59,639. The decrease in the value of salt has already been noticed. The fall in the value of spices was due to smaller shipments of chillies, consequent on the partial failure of the crop in Chittagong.

12. The appliances of the port are reported to have been kept in good order during the year. The depth of water in Track No. II increased by one foot, and that in Track No. IV and Track No. V by two feet, while the depths in Track No. I and Track No. III decreased by six inches and three feet respectively. The state of the river was on the whole satisfactory.

13. It is stated that the lights and fog-signals of almost all native-vessels were inspected during the year. No reason is, however, given for omitting the vessels which were not examined.

14. The circumstances under which the Commissioners considered the purchase of a steam-tug for the Port necessary are fully recounted in the report. They are shortly that it was the only practicable way in which the presence of a steam-tug at the Port throughout the year could be ensured. The earnings and expenditure of the steam tug *Gekko* from the 1st July 1892 to the 30th June 1893 are given in the subjoined statement:—

Receipts.			Expenditure.		
	Rs.	A. P.		Rs.	A. P.
Earnings ...	9,744	2 0	Cost of coal ...	7,242	12 3
			Stores ...	756	0 0
			Establishment ...	5,214	8 5
			Miscellaneous... ..	774	3 9
			Interest on loan paid ...	9,747	7 8
			Total ...	23,735	0 1
			Deduct earnings ...	9,744	2 0
				13,990	14 1
			Deduct savings effected by the tug ...	8,000	0 0
			Net expenditure ...	5,990	14 1

15. The health of the shipping was good compared with that of the previous year. Thirty-seven seamen were admitted into hospital, against 41 in the year before. Of this number 33 were discharged, 1 relieved, and 3 died of cholera. The number of deaths among seamen from cholera was 4 in all. There were no cases of scurvy or disease arising from bad or insufficient food.

16. The Norman's Point Light-house was visited by the Vice-Chairman of the Commissioners several times during the year, and found to be in good order. A first order dioptric revolving light was erected at Kutubdia on the 1st of January last, and is working fairly well.

Pilotage.

17. The state of the Pilotage Fund is shown in the subjoined table:—

	Rs.	A. P.		Rs.	A. P.
Balance at debit on the 31st March 1892 ...	1,528	6 7½	Disbursements during the year 1892-93 ...	9,551	8 4
Receipts during the year 1892-93 ...	15,040	6 6	Balance on the 31st March 1893 ...	3,962	7 6½
Net receipts ...	13,513	15 10½	Total ...	13,513	15 10½

Nothing is stated in the report about the working of the Pilot Service during the year under review. In the absence of any report to the Government about casualties occurring to ships in charge of pilots, it is presumed that there were no accidents. But the report should have contained definite information on this point. The attention of the Commissioners will be drawn to this matter.

By order of the Lieutenant-Governor of Bengal,

C. W. ODLING,  
*Secretary to the Government of Bengal.*

### REDISTRIBUTION OF THE TONNAGE OF THE HOOGLY PILOT SERVICE.

No. 2178Marine.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

*Dated Calcutta, the 18th September 1893.*

#### Hooghly Pilot Service.

*Resolution.*—The tonnage scale under which ships are at present distributed to the various grades of pilots was laid down in Resolution No. 2174Marine of the 28th August 1891. The object of the scale was to reserve ships of large tonnage for the more experienced pilots, and also to secure, as far as possible, an average income to each pilot proportionate to his standing in the service. For the five years 1888 to 1892, these objects were substantially attained, but numerous memorials have lately been received from mate pilots showing that, during the last six months, their income has seriously fallen off. The Port Officer has recommended that the limits of tonnage for each grade now in force shall be revised. The Lieutenant-Governor having fully considered this recommendation, has decided that the following scale shall be observed till further orders:—

Branch Pilots	...	...	...	Above 2,800 tons.
Senior Master Pilots	...	...	...	From 1,601 to 2,800 tons.
Junior ditto	...	...	...	„ 1,601 to 2,200 „
Mate Pilots	...	...	..	Up to 1,600 tons.

*ORDER.*—Ordered that a copy of this Resolution be forwarded to the Port Officer, Calcutta, for information and guidance.

Ordered also that a copy of this Resolution be submitted to the Government of India, in the Department of Finance and Commerce, for information.

By order of the Lieutenant-Governor of Bengal,

C. W. ODLING,  
*Secretary to the Govt. of Bengal.*

### EXCAVATION OF A TANK AT NOWGONG BY THE RANEES OF DUBALHATI.

No. 129T.M., dated Darjeeling, the 16th September 1893.

From—J. A. BOURDILLON, Esq., Offg. Secretary to the Government of Bengal, Municipal Department,

To—The Commissioner of the Rajshahi Division.

WITH reference to the correspondence ending with your memorandum No. 64 P.W., dated the 2nd September 1893, regarding the offer made by Ranees Shyama Sundari and Uma Sundari Chowdhuranis of Dubalhati, to excavate, at a cost of Rs. 2,000, a tank near the Court-house at Nowgong, for the benefit of the public, and to call it the “Elliott Tank” in commemoration of Sir Charles Elliott’s visit to that place, I am directed to request that you will be so good as to convey to the Ranees the Lieutenant-Governor’s acknowledgment of their liberality. This letter will be published in the *Calcutta Gazette*.

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 16th September, 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches	Character of the weather and state and prospects of the crops.
<b>BENGAL.</b>			
BURDWAN DIV.	1 Burdwan Sept. 16, '93	4 75	Copious rain during the early part of the week; weather has since become hot and sultry. The rain has improved prospects considerably. Prices of common rice:—  Srs. Burdwan ... .. 10 to 18 Kalna ... .. 9 to 13 Katwa ... .. 12 Itaniganj ... .. 12 } per rupee.
	Kalna ..	3 85	
	Katwa ..	3 80	
	Raniganj ..	5 89	
	2 Bankura „ 16, '93	5 83	Weather—overcast and rainy with high wind in the beginning of the week and clear in the end. Prospects good. <i>Aus</i> is being harvested with good outcome. The late rain has done much good to the upland paddy. Common rice selling at 11 seers 6 chitaks per rupee at Bankura and 12 seers at Vishnupur
	Vishnupur .	6 71	
	3 Burdhum „ 16, '93	4 88	Weather—cyclonic with heavy rain. The rain has benefited the crops on high land. Common rice sells at from 12 to 14 seers per rupee.
	Rampur Hât ..	4 01	
	4 Midnapore „ 16, '93	5 05	Weather—cyclonic. Prospects continue hopeful. Prices of common rice:—  Srs. Sadar ... .. 12 Contai ... .. 12 to 14 Tamluk ... .. 11 Ghatal ... .. 10 } per rupee.
	5 Hooghly „ 16, '93	4 88	
	Serampore ..	6 38	
	Jahanabad ..	11 41	
			Weather—cool, but continues to be cloudy. The recent rain has done good to the standing <i>aman</i> but the Subdivisional Officer, Jahanabad, apprehends damage owing to incessant rain, and harvesting of <i>aus</i> is therefore at a standstill. Jute steeping continues. Sugarcane doing well. Water and fodder sufficient. Prices of common rice:—  Srs. Sadar ... .. 11 Serampore ... .. 10 to 11½ Jahanabad ... .. 10½ to 12 } per rupee.
	6 Howrah „ 16, '93	5 78	
	Ulubaria .	4 53	
	7 24 Parganas „ 16, '93	6 19	Weather—seasonable. Harvesting of <i>aus</i> and jute and transplantation of <i>aman</i> nearly over. Prospects of crops fair on the whole, but poor in the thanas of Bankipore. Prices of common rice:—  Srs. Sadar ... .. 10 to 11 Diamond Harbour ... .. 11 Basirhat ... .. 10 Barasat ... .. 10 } per rupee
PRESIDENCY DIV.	8 Nadia „ 16, '93	3 74	Weather—cloudy. Prospects of <i>aman</i> rice and other standing crops fair, except in Kushtia subdivision. Lands being prepared for winter crops. Prices stationary.
	Kushtia ..	4 91	
	Mehorpur ..	2 72	
	Chuadanga ..	3 47	
	Ranaghat ..	6 32	
	9 Khulna „ 16, '93	6 91	Weather—hot with heavy showers; stormy at the beginning of the week. Harvesting of <i>aus</i> and transplantation of paddy nearly complete
	Bagerhat ..	6 05	
	Satkhira .	2 99	
			Weather—cloudy, rainy and windy. Harvesting of <i>aus</i> nearly completed. Steeping and extracting of jute still going on. The rainfall of the week has done some good to the standing <i>aman</i> crop. Fodder and water for cattle sufficient. Prices have slightly risen
	10 Jessore „ 16, '93	6 50	
	Jhenida ..	4 44	
	Magura .	3 11	
	Narail ..	6 79	
	11 Barasat „ 16, '93	3 83	Weather—seasonable. Harvesting of <i>bhadai</i> pulses going on. Present state of winter rice appears good. Jute and mulberry are still being cut in some places. Fodder sufficient for cattle. Common rice sells at 11½ seers per rupee.
	Murshidabad ..	1 85	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL—conold.</b>			
CHITTAGONG DIVN.	12 Chittagong ... ..	...	Report not received.
	13 Noakhali .. 16, '93	3.82	Weather—seasonable. Average outturn of <i>aus</i> crop is reported to be seven annas. Transplantation of <i>aman</i> still continues. State and prospects of crops fair. Fodder still insufficient. Cattle-disease reported from four thanas. Water available. Price of common rice stationary.
	14 Tippera .. 16, '93	3.33	Weather—cloudy and rainy. Prospect of <i>aman</i> crop has not yet much improved, though with the gradual subsidence of water it may be better hereafter. Common rice selling at 8 seers per rupee.
	15 Chittagong Hill Tracts. .. 15, '93	4.83	Weather—sultry and cloudy with light showers. Harvesting of <i>aus</i> paddy almost over. Very small quantity of vegetables in the bazar. No cattle-disease reported. Common rice selling at 8 seers per rupee.
DACCA DIVN.	16 Dacca .. 16, '93	2.41	Weather—hot and cloudy with occasional rain. <i>Rowa</i> and <i>shail</i> paddy being sown. Harvesting of jute going on and that of <i>aus</i> nearly finished. Prospects of <i>aman</i> fair. Water subsiding. Common rice selling from 7 to 9 seers per rupee. Fodder not sufficiently available. No cattle-disease.
	17 Faridpur .. 16, '93	1.77	Weather—seasonable. Condition of crops unchanged. Water subsiding again. Common rice sells at 8½ to 9 seers per rupee, but imports seem to be ample. Cattle in want of fodder in some places. Cattle-disease in Palong thana.
	Goalundo ...	2.19	
	Madaripur ...	2.86	
	18 Backergunge .. 16, '93	2.23	Weather—cyclonic during the first part of the week and fair in the latter part. State and prospects of <i>aman</i> crops fair except in Garmadi and Sarupkati, where it has been damaged by flood. Price of common rice varies from 8 to 9 seers per rupee. Fodder and water sufficient.
	Pirojpur ...	6.99	
	Patuakhali ...	3.30	
	Bhola ...	2.16	
	19 Mymensingh .. 16, '93	0.61	Weather—hot; high wind from east during the first part of the week; latter part rainy and cloudy. Flood is subsiding. Transplantation of <i>aman</i> going on rapidly. Prospects of standing crops fair. Jute is still being cut. Common rice selling at 8 seers per rupee. Health of cattle good. Fodder available.
	20 Dinajpur .. 16, '93	4.83	Weather—seasonable. Heavy rain on night of 15th. Prospects favourable. Transplantation of paddy approaching completion. Washing of jute continues. Price of rice unchanged. Fodder and drinking water ample.
	Thakurgaon ...	0.88	
	21 Rajshahi .. 16, '93	3.19	Weather—showery and seasonable. Condition of standing crops everywhere good; in the Barind it is excellent. Outturn of <i>aus</i> will scarcely be in excess of 8 annas. No cattle-disease. Fodder and water-supply ample. Price of rice varies from 9 to 12 seers per rupee.
	Nator ...	3.85	
	Naugaon ...	1.43	
RAJSHAH DIVN.	22 R. agpur .. 16, '93	0.26	Weather—wet and rainy. Rain has done immense good to the standing crops. Prospects continue favourable. Jute cutting and steeping continue. Prices of rice:— Srs. Sadar ... .. 10 to 12 Kurigram ... .. 9 to 12 Gaibanda ... .. 9 to 12 Nilphamari ... .. 10 } per rupee. Condition of cattle good. Fodder and drinking water sufficient.
	Gaibanda ...	3.10	
	Kurigaon ...	0.64	
	Nilphamari ...	0.34	
	23 Bogra .. 16, '93	0.80	Weather—unsettled. Transplantation of <i>aman</i> practically finished. Prospects good. Common rice sells at 10 seers per rupee. Fodder and water sufficient.
	Sherpur ...	1.86	
	Naukhila ...	1.77	
	24 Pabna .. 16, '93	3.06	Weather—hot and cloudy. Cutting of <i>aus</i> paddy finished. Harvesting of jute nearly finished. State of standing crops on the whole fair. Common rice sells at 8 seers per rupee at Sirajganj and 8½ seers at Pabna. Fodder is not easily available at Mathura; elsewhere sufficient.
	25 Darjeeling .. 16, '93	2.95	Weather—seasonable. <i>In the hills</i> :— <i>Bhutta</i> , <i>chota marua</i> , <i>bhadoi</i> and potatoes being harvested. <i>Bora marua</i> and <i>aghani</i> paddy progressing favourably. <i>Kalai dal</i> coming up. <i>Phaphur</i> being planted. <i>In the Terai</i> :—Jute steeping and harvesting of <i>bhadoi</i> continue. <i>Haimanti</i> paddy promises well. Prices of coarse rice:— Srs. Hills ... .. 9 } per rupee. Terai ... .. 10 }
	Siliguri ...	2.85	
	26 Jalpaiguri .. 16, '93	2.86	Weather—hot and cloudy. Harvesting of <i>bhadoi</i> paddy completed. Transplanting of winter paddy almost completed. More rain wanted. Prospects favourable. Common rice sells at— Srs. Sadar ... .. 12 } per rupee. Alipur ... .. 9 to 10 }



No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR.</b>			
BHAGALPUR DIV.	27 Monghyr Sept. 16, '93 0.91	2.23	Weather—cool, cloudy and stormy. <i>Marwa</i> being harvested. Lands under preparation for <i>rabi</i> . Winter rice and sugarcane in excellent condition. <i>Kurthi</i> sowing nearly finished. Cattle-disease at Bahadurpur and Kharakpur. Prices of common rice :—
	Begusarai ... 2.23	3.25	
	Jamui ... 3.25		
			Srs. Sadar ... 12 to 15 Begusarai ... 13½ Jamui ... 12 } per rupee.
	28 Bhagalpur .. 16, '93 2.38	5.43	Weather—cloudy and hot. Transplanting of winter rice finished. <i>Kurthi</i> , <i>kalai</i> and castor are being sown, and indigo sowing has been commenced in the Sadar subdivision. Rain has done good to winter rice and other standing crops. Common rice 13 seers 14 chitaks per rupee.
	Banka ... 0.35		
	Madhipura ... 0.75		
	29 Purnea .. 16, '93 0.67	0.24	Weather—showery. Prospects of <i>aghani</i> very good except in Kishanganj, where rain wanted. Prices stationary.
	Kishanganj ... 0.24	2.48	
	Araria ... 2.48		
	30 Malda .. 16, '93 1.40		Weather—cloudy with occasional light showers. Winter rice thriving. Sowing of <i>kalai</i> pulse continues. Lands are being prepared for <i>rabi</i> crops. Common rice selling at from 11 to 15 seers per rupee. No want of fodder or drinking water.
PATNA DIVISION.	31 Sonthal Parganas .. 16, '93 3.05	5.51	Weather—cloudy and rainy. Prospects of all crops good. More rain wanted in parts of Rajmahal. Water and fodder plentiful.
	Deoghur ... 5.51	1.59	
	Godda ... 1.59	5.07	
	Jamtara ... 5.07	5.89	
	Pakur ... 5.89	1.82	
	Rajmahal ... 1.82		Weather—not very hot with occasional showers. Prospects of the rice crop are generally excellent. More rain needed along the north of the district. Prices of common rice :—
	32 Patna .. 16, '93 0.13	2.90	
	Barh ... 2.90	2.05	
	Bihar ... 2.05	0.91	
	Dinapore ... 0.91		
			Srs. Sadar ... 15 Barh ... 12½ Bihar ... 15 Dinapore ... 13 } per rupee.
	33 Gaya .. 16, '93 2.50	2.56	Weather—stormy early in the week; warm and damp since. <i>Bhadoi</i> harvest and transplantation of paddy over. Outturn of former very poor. Prospects of paddy very good, being much improved by late rain. Prices slightly lower. Fodder and water-supply ample.
	Nawada ... 2.56	4.67	
	Jahanabad ... 4.67	3.75	
	Aurangabad ... 3.75		Weather—unsettled, cloudy with frequent showers. The rainfall in the south of the district has been excessive, and some damage has been done to the young <i>kharif</i> paddy. Elsewhere the weather continues most favourable. <i>Bhadoi</i> harvest is in full swing, and generally the crops will be little, if at all, below the average.
	34 Shahabad .. 16, '93 0.32	1.72	
	Buxar ... 1.72	1.95	
	Bhabhua ... 1.95	3.37	
	Sasaram ... 3.37		Weather—hot and sometimes cloudy. Harvesting of <i>bhadoi</i> not affected by floods is going on. Retransplanting of rice is being vigorously pushed on where possible, and the plants are doing well. Rain is, however, much wanted, especially in the Madhubani subdivision. Fodder for cattle sufficient. Price of common rice is 14½ seers per rupee. Prices show a slight tendency to fall.
	35 Darbhanga .. 16, '93 0.10	1.01	
	Madhubani ... 1.01	2.40	
	Samaatipur ... 2.40		Weather—cloudy. Retransplanting of paddy going on in Sitamarhi. Harvesting of <i>bhadoi</i> crops in progress; outturn poor. Rain wanted for <i>aghani</i> . No cattle-disease. Fodder sufficient.
	36 Muzaffarpur .. 16, '93 0.68	0.67	
	Hajipur ... 0.67	0.39	
	Sitamarhi ... 0.39		

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
BIHAR—consolid.			
PATNA DIVISION—consolid.	37 Saran Sept. 16, '93	0.14	Weather—bright at first; stormy and cloudy on two days. Bright again. Cloudy to-day (10th). East wind prevailing. Harvesting of <i>bhadoi</i> crops coming to a close. Yield of <i>makai</i> likely to be 12 annas in Sadar and Siwan. Paddy in many places wants rain. Where it has been possible to carry water from flooded rivers, prospects excellent. At Gopalganj weather favourable for crops. Fodder sufficient, as also water, except for irrigation, in some places. Prices of common rice :—
	Siwan ...	1.01	
	Gopalganj ...	1.82	
			Srs. c. Chapra ... .. 14 8 } per rupee. Siwan ... .. 18 10 Gopalganj ... .. 16 0
38 Champaran „ 16, '93	0.08	Weather—cooler. <i>Saro</i> paddy and <i>kodo</i> are being reaped. <i>Aghani</i> paddy in good condition. Prices stationary. Fodder and water sufficient.	
ORISSA.			
ORISSA DIVN.	39 Cuttack „ 16, '93	4.30	Weather—cloudy with occasional showers. <i>Beali</i> is being reaped and gathered. Transplantation of <i>sarad</i> in progress. Fodder-supply sufficient. Price of common rice unchanged except in Kendrapara, where it sells at 18 seers 10 chitaks to 21 seers per rupee.
	40 Puri „ 14, '93	11.20	
	41 Balasore „ 16, '93	6.72	
CHOTA NAGPUR.			
South-West Frontier Agency.			
CHOTA NAGPUR DIVN.	42 Hazaribagh Sept. 14, '93	3.67	Weather—seasonable. Prospects of winter rice very good. Sugarcane promising. Pulses and oil-seeds being sown. Fodder and water abundant. Prices stationary.
	Giridi ...	7.98	
	43 Lohardaga „ 16, '93	10.91	Weather—hot and cloudy. Reaping of <i>gora</i> paddy continues. Prospect of winter rice good. Common rice selling at 15 seers per rupee. Fodder and water plentiful.
	44 Palamau ...	...	Report not received.
	45 Singhbhum „ 16, '93	4.95	Weather—seasonable. <i>Bhadoi</i> crops still being reaped; a 12 to 16-anna outturn expected. Winter rice doing exceedingly well. Price of common rice ranges from 10 to 12 seers per rupee. No cattle-disease reported.
46 Manbhum „ 16, '93	5.35	Weather—showery. Sunshine from yesterday (15th) which is much wanted. In Gobindpur subdivision and also in parts of Sadar subdivision, prospects of crops are not bright on account of heavy rain. Prices stationary.	
Gobindpur ...	6.68		

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 19th September, 1893.

M. FINUCANE,  
Offg. Secy. to the Govt. of Bengal.

**PRICES-CURRENT (*RETAIL*) OF FOOD-GRAINS, FIREWOOD AND SALT IN THE  
HEAD-QUARTERS STATION BAZARS OF THE DISTRICTS OF BENGAL.  
DURING THE FORTNIGHT ENDING THE  
15<sup>TH</sup> SEPTEMBER 1893.**

**PRICES-CURRENT (retail) of Food-grains, Firewood, and Salt in the**

Number.		DISTRICTS.	QUANTITIES PER RUPEE IN																									
			WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU. (Sorghum Vulgare.)													
			Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.								
BENGAL.																												
BURDWAN DIVISION.	1	Burdwan	13 0	13 6	12 15	...	...	...	9 0	9 8	9 0	11 4	11 4	12 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	2	Bankura	14 3	14 8	11 0	...	...	...	10 0	10 10	10 0	11 6	13-5-2	11 4	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	3	Birbhum	12 0	12 0	11 0	...	...	...	10 8	10 8	10 8	12 0	12 0	12 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	4	Midnapore	11 0	11 0	10 8	...	...	...	10 0	10 0	10 0	11 9	11 14	11 8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	5	Hooghly	13-14	13 15	12 0	17 0	17 0	14 0	9 0	8 0	8 8	10 0	10 0	10 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	6	Howrah	...	...	...	...	...	...	8 13	8 13	8 14	11 6	11 6	12 12	...	...	...	...	...	...	...	...	...	...	...	...	...	...
PRESIDENCY DIVISION.	7	Calcutta	12 7	12 7	11 2	16 13	16 13	14 8	7 4	7 4	8 2	9 12	9 12	10 10	19 0	19 0	15 2	...	...	...	...	...	...	...	...	...	...	...
	8	24-Parganas	11 12	11 12	11 8	16 0	20 0	16 0	7 0	7 0	8 0	10 12	10 12	11 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	9	Nadia	14 8	14 8	12 0	...	...	20 0	9 3	9 0	10 0	11 0	10 13	11 7	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	10	Khulna	...	...	...	...	...	...	8 0	9 0	10 0	9 0	10 0	11 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	11	Jessore	11 8	11 8	11 0	13 0	13 0	...	8 8	8 8	9 8	10 4	10 0	13 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	12	Murshidabad	12 0	12 0	12 0	...	...	...	9 0	9 0	9 0	11 8	11 8	12 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CHITTAGONG DIVISION.	13	Chittagong	10 0	10 0	9 12	...	...	...	8 12	8 8	7 8	10 8	10 0	9 8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	14	Noakhali	...	...	...	...	...	...	7 0	7 4	10 0	8 0	8 0	11 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	15	Tippera	9 8	10 0	10 0	...	...	...	7 0	7 0	8 8	8 0	7 10	10 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	16	Chittagong Hill Tracts.	...	...	...	...	...	...	...	...	...	8 0	8 14	8 14	...	...	...	...	...	...	...	...	...	...	...	...	...	...
DACCA DIVISION.	17	Dacca	11 0	11 0	10 8	...	...	...	7 0	7 0	9 8	8 0	8 0	10 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	18	Faridpur	15 0	15 0	10 0	13 0	13 0	...	8 0	8 0	8 0	9 0	9 0	12 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	19	Backergunge	...	...	...	...	...	...	8 0	8 0	9 0	8 2	8 4	10 8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	20	Mymensingh	9 8	9 8	9 8	...	...	...	7 0	7 0	9 0	8 0	8 0	10 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
RAJSHAH DIVISION.	21	Dinajpur	12 0	13 0	10 0	16 0	16 0	16 0	9 0	9 0	9 10	12 0	12 0	15 10	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	22	Rajshahi	15 0	15 12	12 0	No sale.	24 0	19 8	8 4	8 4	9 0	10 2	10 8	11 4	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	23	Rangpur	13 8	13 15	11 4	...	...	...	9 2	10 0	8 0	10 5	11 0	10 11	...	...	...	...	...	...	...	...	...	...	...	...	...	...

\*At Madaripur common rice 8½ seers per rupee.

A In the subdivisions the retail prices of salt per rupee are :—Kulna 10 seers, Katwa 10½ seers, and Raniganj 11 seers.

B At Vishnupur the retail price of salt is 10 seers per rupee.

C At Ranpur Hat the retail price of salt is 11 seers per rupee.

D In the subdivisions the retail prices of salt per rupee are :—Contai 10 seers, Tamuk 11 seers, and Gbatal 10 seers 7 chitaks.

E In the subdivisions the retail prices of salt per rupee are :—Serampore (at Bhadreswar) 11 seers 6 chitaks and Jahanabad 10 seers 10 chitaks.

F At Ulubaria the retail price of salt is 11 seers per rupee.

G In the marts in the interior of the district the retail prices of salt per rupee are :—Chotla Hat 11 seers 7 chitaks, Baduria 11 seers, Magrahat 10 seers 10 chitaks.

H In the subdivisions the retail prices of salt per rupee are :—Kushia (at Bahadurkhal) 10½ seers, Chundanga 10 seers, Meherpur 11 seers, and Ranaghat 10½ seers.

I In the subdivisions the retail prices of salt per rupee are :—Bagerhat 8 seers and Satkhira 10 seers 10 chitaks.



## PRICES-CURRENT (retail) of Food-grains, Firewood, and Salt in the Head-quarters

Number.	DISTRICTS.	QUANTITIES PER RUPEE IN														
		WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU (Sorghum Vulgare)		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
BENGAL—continued.																
RAJSHAH DIVISION —continued.	23 Bogra	13 5	13 5	12 0	...	...	...	7 8	7 8	9 12	9 0	9 12	12 0	...	...	...
	24 Pabna	16 8	16 8	13 8	22 8	24 0	...	6 0	6 0	6 14	11 4	9 12	12 12	...	...	...
	25 Darjeeling	8 0	8 0	8 0	8 0	10 0	9 0	5 0	5 0	5 0	10 0	10 0	10 0	...	...	...
	26 Jalpaiguri	13 0	13 0	11 0	13 0	12 0	14 0	7 8	8 0	6 0	12 0	12 0	10 8	...	...	...
BIHAR.																
BHAGALPUR DIVISION.	27 Monghyr	15 12	15 8	13 6	23 1	21 0	13 8	10 8	8 0 to 10 0	9 4	12 0	11 8	11 8	...	...	...
	28 Bhagalpur	15 2	15 2	13 14	21 7	21 7	15 2	10 11	10 11	10 1	13 14	13 4	11 6	...	...	...
	29 Purnea (Kusha)	16 0	16 0	11 0	...	...	...	10 0	11 0	10 0	12 0	14 0	16 0	...	...	...
	30 Malda (English Bazar).	16 0	15 0	12 0	...	...	...	9 8	10 0	9 8	12 8	13 0	14 0	...	...	...
	31 Sonthal Parganas.	11 8	11 8	11 0	...	...	...	11 0	11 0	10 0	11 0	14 0	12 0	...	...	...
PATNA DIVISION.	32 Patna	20 0 19 0	Red 19 0 White 18 0	15 8	25 0 to 25 0	21 0	10 0	10 4	10 0	15 0	15 0	14 0	21 0	23 0 to 24 0	21 0	21 0
	33 Gaya	11 0	14 0	12 0	20 0	20 0	17 0	9 8	9 8	4 8	12 4	13 0	12 0	17 8	17 8	...
	34 Shahabad*	...	13 0	13 0	19 0	17 0	...	8 0	8 0	...	12 0	10 0	...	...	...	...
	35 Darbhanga	15 14	13 3	13 3	18 9	20 12	17 10	12 5	12 0	11 0	14 4	14 0	14 13	...	...	...
	36 Muzaffarpur	15 0	15 0	13 0	22 0	22 0	20 0	8 0	8 0	8 0	12 12	12 12	12 0	...	...	...
	37 Saran	16 0	16 12	14 0	25 0	25 0	21 0	11 8	9 8	8 8	11 8	13 0	11 10	...	...	...
	38 Champaran	13 8	13 8	12 8	22 8	22 0	16 0	8 8	8 8	9 0	16 0	15 8	13 8	...	...	...
ORISSA.																
ORISSA DIVISION.	39 Cuttack	11 2	12 7	9 3	...	...	...	10 8	11 0	8 8	13 2	11 7	11 13	...	...	...
	40 Puri	9 8	9 8	8 8	...	...	...	8 0	8 0	7 8	13 0 Old to 16 0 New 15 0	13 0	10 8	...	...	...
	41 Balasore	11 0	11 0	11 0	10 0	10 0	10 0	10 0	10 0	10 0	16 0	14 0	...	...	...	...
CHOTA NAGPUR.																
CHOTA NAGPUR DIVISION.	42 Hazaribagh	12 0	12 4	11 0	16 0	16 0	13 0	8 0	6 0	8 0	12 0 to 12 8	12 12	13 8	...	...	...
	43 Lohardaga	11 0	10 8	9 0	13 0	13 0	11 0	11 0	11 0	12 0	13 0 to 14 0	13 0 to 14 0	13 0	...	...	...
	44 Palamau	10 0	12 6	11 13	21 15	20 4	...	13 8	11 15	...	14 1	15 12	...	...	...	...
	45 Singhbhum	12 0	12 0	12 0	...	...	...	10 0	10 0	11 0	12 0	12 0	15 0	...	...	...
46 Manbhum	13 0	13 0	11 8	...	...	16 0	8 0 to 9 0	8 0 to 8 8	10 0	10 0 to 13 0	10 0 to 12 0	11 2	...	...	...	...

\* Present return not received.

U At Sirajganj the retail price of salt is 10½ seers per rupee.

V At Ahpur the retail price of salt is 8 seers per rupee.

W In the Begusarai and Jammu subdivisions the retail price of salt is 10 seers per rupee.

X In the subdivisions of Banka, Madhupura, and Supaul the retail price of salt is 10 seers per rupee.

Y In the Kishanganj and Araria subdivisions the retail price of salt is 10 seers per rupee.

Z In the subdivisions the retail prices of salt per rupee are:—Deoghur 9½ seers, Godda 9 seers, Jamtara 9 seers, Pakur 10½ seers, Rajmahal 10 seers.

a In the subdivisions the retail prices of salt per rupee are:—Barh 11 seers, Bihar 10 seers, and Dinapore 9½ seers.

## SEERS OF 80 TOLAHS.

BAJRA OR CUMBU. ( <i>Pennisetum typhoides</i> .)			MARUA OR RAGI. ( <i>Eleusine Coracana</i> .)		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.

S. Ch. S. Ch. S. Ch. S. Ch. S. Ch. S. Ch.

... ..

... ..

... 13 0 13 0 13 0

... ..

.. 15 8 ... .. 20 0

... ..

... ..

... .. 32 0

... ..

... ..

... ..

. 23 0 ... .. 22 0

... 18 0 25 0 20 0 25 4

... ..

... 24 1 22 8 30 13

... ..

... 25 0 24 0 25 0

... 14 0 26 0 22 0 23 0

... 26 8 25 8 24 8

... ..

... ..

... ..

... ..

... { 23 0 to 25 0 } 24 0 30 0

... ..

... 28 0 26 0 32 0

... ..

... ..

... ..

16 0 ... ..

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## of Bengal on the 15th September, 1893—(concluded).

WHOLESALE PRICES PER MAUND OF 40 SEERS.												DISTRICTS.	Number.
FIREWOOD.			SALT.			SALT.			SALT.				
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.		
Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	Rs. A. P.	Rs. A. P.	Rs. A. P.		
90 0	90 0	90 0	10 0	9 9	9 12	3 13	4 4	0 0	3 13	4 4	0 0	Bogra	23
90 0	200 0	200 0	9 12	10 8	9 12	3 11	0 3	10 6	3 11	0 0	0 0	Pabna.	21
20 0	120 0	120 0	6 5	8 0	8 0	4 10	0 4	10 0	4 10	0 4	10 0	Darjeeling.	25
60 0	160 0	260 0	10 0	10 0	9 8	3 15	0 3	15 0	4 0	0 4	0 0	Jalpaiguri.	26
132 16	160 0	160 0	11 0	11 0	10 9	3 12	0 3	12 0	3 13	0 3	13 0	Monzhyr.	27
36 9	151 8	106 12	10 11	10 8	10 11	3 10	0 3	10 0	3 10	0 3	10 0	Bhagalpur.	28
20 0	920 0	320 0	10 0	10 0	10 0	10 0	3 10	0 3	5 0	0 3	5 0	Purnea.	29
30 0	100 0	120 0	10 0	10 0	10 0	3 14	0 4	0 0	3 12	0 3	12 0	Malda.	30
30 0	111 0	200 0	10 0	10 0	10 0	3 12	0 3	13 3	3 10	3 3	10 3	Southal Pargana.	31
90 0	130 0	130 0	11 0	11 4	11 8	3 10	0 3	10 0	3 8	0 3	8 0	atna.	32
40 0	160 0	200 0	10 0	10 0	10 0	3 14	0 3	13 0	3 13	0 3	13 0	Gaya	33
111 0	140 0	0 0	10 8	11 0	0 0	3 13	0 3	10 0	3 10	0 3	10 0	Shahabad.	34
6 0	178 0	176 0	9 8	10 4	10 0	1 3	8 3	11 6	1 0	0 1	0 0	Darbhanga.	35
0 0	160 0	160 0	11 0	11 0	10 5	3 10	0 3	10 0	3 11	0 3	11 0	Muzaffarpur.	36
0 0	130 0	160 0	10 8	10 8	10 5	3 12	0 3	12 0	3 12	0 3	12 0	Saran.	37
0 0	140 0	160 0	10 2	10 10	10 8	3 11	0 3	11 0	3 11	0 3	11 0	Champaran.	38
0 0	80 0	80 0	11 0	11 0	11 0	3 8	0 3	8 0	3 12	0 3	12 0	Cuttack.	39
0 0	80 0	8 0	12 0	12 0	12 0	3 5	0 3	6 0	3 4	0 3	4 0	Puri.	40
0 0	130 0	160 0	11 0	11 0	11 0	3 8	0 3	9 0	3 10	0 3	10 0	Balasore.	41
0 240 0	240 0	9 0	9 0	9 0	9 0	4 8	0 4	4 0	4 1	0 4	1 0	Hazarihag.	42
0 140 0	140 0	140 0	8 8	8 4	4 0	4 8	0 4	12 0	1 4	0 1	4 0	Lohardaga.	43
0 100 0	120 0	9 0	9 0	9 0	9 0	4 6	0 1	6 0	4 6	0 4	6 0	Palamu.	44
0 10 0	10 0	10 0	10 10	10 10	10 10	3 11	0 3	11 0	3 10	0 3	10 0	Singbhum.	45
0 10 0	10 0	10 0	10 10	10 10	10 10	3 11	0 3	11 0	3 10	0 3	10 0	Manbhum.	46

BENGAL—continued.

BIHAR.

BHAGALPUR DIVISION.

PATNA DIVISION.

ORISSA.

CHOTA NAGPUR.

CHOTA NAGPUR DIVISION.

alt per rupee are :—Jahanabad 10 seers, Aurangabad 10 seers, and Nawada 5 seers.

It per rupee are :—Madhubani 11 seers and Samastipur 10 seers.

It per rupee are :—Hajipur 10½ seers and Sitamarhi 11 seers.

It per rupee are :—Siwan 10½ seers and Topalganj (Mirgunj) 11 seers 13 chitaks.

It per rupee.

It per rupee are :—Jaipur 16 seers, Kondrapara 9 seers, and Banki 11½ seers.

At Bhadrak the retail price of salt is 9 seers per rupee.

At Giridih the retail price of salt is 11 seers per rupee.

At Gohindpur the retail price of salt is 11 seers per rupee.

Published for general information.

M. FINUCANE.

*PRICES-CURRENT (wholesale) of Food-grains, Firewood, and Salt*

Number.	MARKETS.	WHEAT.			BARLEY.			RICE, BEST SORT.			RICE COMMON.		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
		R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
1	Calcutta ...	3 3 9	3 3 3	3 5 3	2 6 0	2 5 6	2 8 0	5 9 0	5 8 0	4 11 3	4 2 0	4 1 6	3 8 6
2	Sirajganj ...	2 11 0	2 7 0	3 4 0	...	...	...	6 6 0	6 6 0	5 13 0	5 0 0	4 8 0	3 12 0
3	Dacca ...	3 8 0	3 8 0	3 12 0	...	...	...	5 12 0	5 12 0	4 4 0	5 0 0	5 0 0	4 0 0
4	Narayanganj*	...	...	...	...	...	...	...	5 8 0	4 0 0	...	5 0 0	3 12 0
5	Chittagong	4 0 0	4 0 0	4 2 0	...	...	...	4 7 0	4 8 0	5 0 0	3 12 8	3 14 0	4 1 0
6	Patna ...	2 0 0	Red. 2 1 6	2 9 0	1 6 9	1 9 6	1 14 6	4 0 0	3 13 0	4 0 0	2 10 6	2 10 6	2 13 6
		2 1 6	White. 2 3 6	2 10 6									
7	Balasore ...	3 12 0	3 12 0	3 4 0	4 9 0	4 0 0	3 12 0	4 0 0	4 0 0	3 12 0	2 3 0	2 8 0	3 0 0
8	Puri ..	4 3 0	4 3 0	4 11 0	...	...	...	5 0 0	5 0 0	5 5 0	3 0 0	3 0 0	3 12 0
9	Cuttack ...	3 12 0	3 2 0	4 6 0	...	...	...	3 10 0	3 8 0	4 10 0	3 0 0	3 12 0	3 6 0

\* Present return not received.

Calcutta,  
The 19th September, 1893.



in the undermentioned Marts of Bengal on the 15th September, 1893.

PRICES PER MAUND					
JOWAR OR CHOLAM. (Sorghum Vulgare.)			BAJRA OR CUMBU. (Pennisetum typhoides.)		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
2 2 0	2 1 6	2 6 3	...	...	3 2 0
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
1 11 0	1 12 0	1 14 6	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...

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ARHAR OR THUR, CADJAN PEA. (Cajanus indicus.)			FIREWOOD.			SALT.			MARTS.
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	
0 2 3 0	2 2 6	2 6 6	0 7 0	0 7 0	0 6 0	3 8 0	3 9 0	3 4 6	Calcutta.
...	...	...	0 6 6	0 6 6	0 8 0	3 9 0	3 9 0	3 7 0	Sirajganj.
2 8 0	2 8 0	2 8 0	0 5 0	0 5 0	0 5 0	3 11 0	3 11 0	3 11 0	Dacca.
...	3 0 0	4 0 0	...	0 6 0	0 8 0	...	3 10 0	3 8 0	Narayanganj.
...	...	...	0 8 0	0 8 0	0 5 0	3 14 0	3 13 0	3 14 0	Chittagong.
6 1 7 0	1 10 9	1 12 0	0 5 0	0 5 0	0 5 0	3 10 0	3 10 0	3 8 0	Patna.
4 0 0	3 12 0	3 10 0	...	...	...	3 8 0	3 9 0	3 10 0	Balasore.
2 10 0	2 10 0	3 0 0	0 8 0	0 8 0	0 8 0	3 5 0	3 6 0	3 4 0	Puri.
2 0 0	2 0 0	2 10 0	0 8 0	0 8 0	0 8 0	3 8 0	3 8 0	3 12 0	Cuttack.

published for general information.

M. FINUCANE,  
Offg. Secretary to the Govt. of Bengal.

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.											
			AIR PRESSURE.			WIND.		TEMPERATURE.						
			Mean barometric height, 8 A.M., reduced to 32°.	Mean reduced to sea-level and constant gravity, lat. 40°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.
ORISSA.	Puri	Puri	29.078	29.063	—	Calm & Wly.	329	87.7	16th Sept.	78.6	13th Sept.	85.5	78.2	81.9
		Gopalpore	29.603	29.034	0	NNW & SW	367	87.2	12 & 13	73.8	10th	85.2	70.6	80.0
		False Point	29.078	29.041	—0.03	Sly	343	86.9	15 & 16	75.1	12th	84.6	77.9	81.3
SOUTH-WEST BENGAL.	Cuttack	Cuttack	29.004	29.020	—0.02	SWly	80	91.2	10th	75.8	13 & 14	85.6	77.4	81.5
	Balasore	Balasore	29.027	29.030	—0.02	Variable	140	90.4	10th	75.7	11, 12, 15,	84.2	76.4	80.4
	Midnapore	Midnapore	29.561	29.657	+0.24	Ely	138	90.3	10th	75.1	10, 12, 13, & 14.	84.9	75.8	80.3
	24-Pargannas	Calcutta	29.710	29.677	+0.05	SEly	141	88.6	10th	73.7	13th	84.5	76.9	80.2
		Saugor Island	29.676	29.046	—0.02	Variable	370	88.2	16th	77.0	10-12	84.7	78.0	81.4
	Howrah Hooghly													
	Nadia	Krishnagar	29.701	29.696	+0.02	SEly	168	91.3	10th	75.2	10 & 14	86.4	76.6	81.5
	Khulna Jessore	Jessore	29.736	29.716	+0.02	SEly	163	91.0	10th	75.9	12th	86.4	77.2	81.8
	Burdwan	Burdwan	29.656	29.698	—0.04	SE	134	91.1	10th	75.2	10th	85.7	76.9	81.3
		Ranganj	29.402	29.648	+0.13	SEly	95	91.7	10 & 16	72.9	12 & 13	87.1	74.3	80.4
NORTH BENGAL.	Bankura	Bankura	29.397	29.048	—0.17	Ely	101	90.1	10th	73.6	12th	84.3	75.8	80.1
	Birbhum Murshidabad	Berhampore	29.697	29.712	+0.06	E	167	90.6	10th	75.8	14th	86.3	77.1	81.7
	Pabna	Sirajganj	29.738	29.734	+0.04	Sly	?	90.0	10th	75.2	13 & 14	87.5	77.4	82.5
	Bogra	Bogra	29.717	29.730	+0.06	SE	81	91.2	10th	74.2	13th	88.7	76.2	82.5
	Rajshahi	Rampur Boudha.	29.690	29.715	+0.04	SE	130	90.1	10th	74.6	12-14	86.7	76.2	81.5
	Malda	Malda	29.658	29.721	—	SE	84	91.6	16th	71.5	12th	87.6	77.2	82.4
	Dinajpur	Dinajpur	29.671	29.749	+0.08	ENE	07	91.1	10th	75.7	16th	88.0	77.6	82.8
	Rangpur	Rangpur	29.671	29.748	+0.04	SEly	63*	91.8	10th	76	10, 14, 16,	88.9	77.3	83.2
	Jalpaiguri Kuch Bihar	Jalpaiguri	29.529	29.767	+0.02	NE	44	92.4	10th	74.1	16th	80.3	76.0	82.6
	Darjeeling Bikkim	Darjeeling Gnatong	23.012	?	+0.02	Variable W & W	127	68.1	11th	52.6	12th	64.4	54.6	59.5
EAST BENGAL.	Chittagong	Chittagong	29.726	29.760	+0.02	SEly	125	87.2	11 & 16	74.6	10th	86.0	75.6	80.8
	Chittagong Hill Tracts	Domagiri						Observations not received.						
	Backergunge	Barisal	29.755	29.711	+0.018	Calm	109	89.8	16th Sept.	75.9	10, 12, 13,	80.4	77.3	80.8
	Noakhali	Noakhali	29.744	29.734	+0.028	Variable	220	87.5	11 & 12	75.8	13th	85.4	77.1	81.3
	Faridpur	Faridpur	29.740	29.743	+0.043	Ely	135	87.0	16th	75.9	10 & 13	84.9	77.3	81.1
	Dacca	Dacca	29.760	29.720	+0.028	Variable	154	91.1	10th	76.7	11th	88.3	78.0	83.1
	Tippera	Gomilla	29.764	29.748	+0.036	E	105	91.3	10th	85.3	10th	87.4	74.6	81.0
	Mymensingh	Mymensingh	29.735	29.746	+0.033	Variable	106	89.7	10th	76.1	14th	88.2	77.7	82.9
	Purnea	Purnea	29.647	29.725	+0.030	Variable	49	91.2	10 & 11	77.2	12, 13, 14, & 16.	88.8	78.2	83.5
	Bhagalpur	Bhagalpur	29.590	29.703	+0.035	Ely	77	89.7	11th	75.0	14 & 16	86.9	76.8	81.9
NORTH BIHAR.	Darbhanga	Darbhanga	29.691	29.711	+0.021	ENE	169	92.0	11th	76.7	14th	89.0	78.5	83.3
	Muzaffarpur	Muzaffarpur	29.674	29.705	—	ENE	295	92.7	11th	76.2	12th	88.0	77.8	82.0
	Champaran	Motihari	29.524	29.705	+0.034	ENE	132	94.2	11 & 12	74.9	14th	90.6	77.0	83.9
	Saran	Chapra	29.560	29.638	+0.043	E	180	92.8	11th	77.1	14th	89.2	78.1	83.6
		Dehri	29.357	29.661	—0.027	E	237	90.3	11th	75.0†	12th	85.8	77.8†	87.7†
	Shahabad	Buxar	29.483	29.670	+0.000	E & ENE	239	91.5	12th	75.8	13 & 14	89.3	77.2	82.8
		Arrah	29.551	29.672	+0.019	Ely	96	92.4	11th	77.0	14th	89.4	78.6	84.0
	Gaya	Gaya	29.324	29.632	—0.017	E	165	91.4	11th	74.8	12 & 13	80.3	76.7	83.0
	Patna	Bankipore	29.553	29.688	+0.000	E	238	91.5	11th	77.1	14th	85.4	76.3	83.8
	Monghyr													
CENTRAL NAGPUR.	Bonthal Pargannas	Naya Dumka	29.242	29.680	+0.021	SEly		89.6	10th	74.3	13th	85.2	70.0	80.7
	Hazaribagh	Hazaribagh	27.707	29.659	—0.018	Variable	326	85.2	16th	70.3	12 & 15	81.8	71.1	75.3
	Lohardaga Palamau	Ranchi Daltonganj	27.575	29.042	—0.023	SE	289	84.0	10 & 16	69.9	15th	79.8	70.3	75.1
	Singbhum Manbhum	Chaitanya	28.918	29.025	—0.022	ESE	29*	83.9	16th	74.7	11 & 12	87.1*	75.4	81.3*
	Sibsagar	Sibsagar	29.525	29.815	+0.006	C & NE		83.1	13th	73.0	10th	90.0	75.5	83.3
ASSAM.	Goalpara	Dhubri	29.680	29.749	+0.030	Variable	123	88.2	10th	75.8	11th	86.0	77.0	81.5
	Cachar	Silchar	29.685	29.762	+0.026	Calm		90.6	13th	73.8	16th	98.6	76.0	84.9

\* Mean of 5 days. † Mean of 5 days.  
 The humidity of the atmosphere is expressed at percentage, saturated air being presented by 100. A clear sky is denoted by 0 and an overcast sky by 01.  
 The normal means are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional stations district, i.e. from total rainfall at the subdivisional stations in the district sending in returns divided by the number of stations. A rainy day is one of

for the week ending Saturday, the 16th of September 1893.

DISTRICT OBSERVATIONS.															District.
Variation from normal mean.	Mean 8 A.M. temperature.	Average humidity at 8 A.M.	Average cloud amount at 8 A.M.	Rainfall of week at observing station.	OF WEEK				RAINFALL						
					Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Since 1st of month.			Since 16th May 1893.			
									Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.	
-	80.5	89	7.7	11.00		2.57		3.31		6.18			39.74		Puri.
-3.2	79.6	87	5.4	1.17											
-1.0	81.0	87	8.0	8.10											
-2.5	80.1	84	7.9	3.41		2.16		3.07		5.15			39.00		Outtack.
-2.2	79.9	84	6.9	5.9		2.70		3.4		7.81			40.98		
-3.1	79.0	91	6.4	4.0	9.1	2.0	7.0	3.02	11.02	5.26	+5.76	61.43	43.74	+17.69	
-2.8	79.1	91	8.6	1.19	6.48	2.4	5.20	3.09	7.90	5.80	+2.10	57.35	44.89	+12.46	Midnapore.
-2.5	80.4	92	9.4	10.09											
					9.91	1.81	7.0	3.01	10.49	7.7	+2.14	57.90	43.96	+13.94	
					7.54	1.5	7.00	3.01	8.49	4.77	+3.3	56.84	42.42	+14.42	Howrah.
-1.8	80.3	89	8.9	3.74	3.5	2.11	7.4	2.55	4.40	7.11	-0.71	43.98	40.31	+3.67	
-2.3	80.4	93	9.1	6.30	4.4	1.9	3.3	2.48	7.09	5.8	+1.24	60.45	46.07	+14.38	
-3.0	79.2	89	8.0	5.31	4.22	2.02	4.7	2.51	5.30	1.84	+0.5	47.54	39.54	+8.00	Nadia.
-3.2	77.7	91	6.3	5.31											
-3.9	77.4	95	5.5	5.83	6.01	1.5	2.6	7.85	7.13	+0.6	55.7	41.9	+13.83		
-2.8	78.0	95	9.7	1.45	2.31	2.71	3.3	2.87	6.01	6.01	+0.30	46.4	44.44	+1.97	Khulna Jess re.
										6.35					
-0.6	80.2	90	1.0	1.42	2.24	2.7	3.0	2.69	4.13	6.42	-2.0	60.40	43.4	+17.06	
-0.6	80.4	98	8.0	0.70	1.17	2.10	2.45	2.54	5.76	1.22	51.44	40.04	+11.40		Burdwan
-1.2	81.3	90	7.0	3.15	1.02	2.3	3.10	2.6	4.15	6.07	-2.3	55.61	43.44	+12.17	
-	80.4	96	7.9	1.40	0.04	3.24	3	2.10	4.35	7.17	-2.94	44.3	45.4	-1.10	
-0.0	71.1	84	8.3	4.88	1.9	3.27	2.4	2.68	5.87	7.47	-2.60	50.48	44.08	+6.40	Bankura.
+0.4	80.3	81	6.0	0.26	0.54	3.11	1.2	2.46	3.49	7.81	3.12	60.14	62.28	-2.14	
+0.5	80.5	84	7.9	2.10	0.81	3.14	1.1	2.05	10.01	13.43	92	100.01	86.58	+13.43	
-1.0	54.1	80	8.3	3.1	1.1	3.90	1.2	3.72	2.57	11.48	-7.11	10.70	91.1	-80.40	Bhadrabad
-	37.4	66	7.7	1.10					4.7						
-0.9	81.4	85	7.0	0.91	1.89	2.65	3.15	4.18	3.23	10.63	-1.89	11.40	107.02	-95.62	
					4.43	3.23	5.00	3.80	8.69	7.42	+1.27	1.57	60.88	+27.91	Unitsakong.
-0.3	80.7	80	9.0	2.12	3.55	2.55	3.75	3.14	7.46	6.70	+0.70	74.60	61.01	+13.59	
-0.6	80.5	91	3.3	3.42	1.1	3.65	5.00	3.75	6.73	10.82	-3.53	104.74	87.01	+17.73	
-1.6	80.8	90	8.1	1.77	1.55		2.59			5.42					Chittagong Hill
-0.9	81.4	88	8.6	2.17	1.74	1.87	2.00	4.43	0.54	-2.10	57.87	50.53	+7.34		
-1.5	79.6	92	7.9	4.11	2.41	2.13	2.11	4.46	0.8	-2.43	64.27	77.55	-13.28		
+0.6	81.4	88	7.4	0.61	1.01	2.42	1.60	3.04	2.87	7.11	-4.42	71.67	58.64	+13.03	Backergunge
+0.3	80.9	89	6.1	0.62	1.06	4.43	1.67	3.16	6.07	9.37	-2.70	62.61	50.32	+12.29	
-1.6	80.9	88	8.3	2.48	1.46	2.64	2.00	2.25	7.00	5.80	+1.20	52.04	37.9	+14.14	
-0.7	81.2	86	5.7	0.10	0.07	2.12	0.34	2.25	2.82	7.84	-3.02		37.06		Dacca.
-	81.5	86	5.7	0.03		1.12		2.19	4.97				34.83		
+0.3	81.4	82	5.4	0.03		1.1		2.31	4.77				37.53		
-0.4	82.8	81	7.1	0.14		1.97		2.36	4.46				33.9		Lippora.
+1.4	80.9	88	2.7	1.51				2.44	4.63				33.17		
-0.9	82.1	81	6.0	0.81	1.14			2.44	4.63				33.17		
-0.8	82.8	84	2.0	0.12											Gaya.
-1.5	79.2	90	6.1	2.50	1.03	1.01	2.75	2.33	0.08	4.34	+1.74		34.97		
-1.4	82.2	84	7.3	0.13	0.11	1.62	0.10	2.40	4.26				34.04		
					1.10	2.16	2.67	2.65	4.08	5.22	-1.14	39.70	36.30	+3.40	Paine.
-1.6	76.5	90	0.6	3.05	2.82	2.0	3.83	2.96	5.26	6.37	-1.11	50.05	42.19	+7.86	
-2.1	74.3	93	9.7	3.25		1.7	3.5	3.5	5.43				42.07		
-2.5	73.6	92	7.8	10.01	8.01	2.20	5.50	3.72	6.31	6.30			44.19		Hazariabagh.
								3.0	6.31				36.19		
-1.4	78.8	88	9.9	4.05	4.05	2.52	3.00	3.30	7.33	5.63	+1.69	50.94	44.30	+6.64	
-0.3	78.3	93	3.7	1.14	5.02	2.48	5.15	3.15	4.93	+1.16	60.98	39.64	+21.34		Lohardaga.
-0.8	79.1	87	9.3	1.24											
+1.7	81.3	88	8.1	0.68											

for the last ten years. The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater. The numbers denoting cloud amount represents the part of the sky covered the whole sky being denoted by 10. Under the head District observations are for the period in question during the past ten years. The means of the district are the numerical average of the rainfall returned received in the which at least a tenth of an inch fall.







**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSER-  
VATIONS TAKEN IN ASSAM, FOR THE WEEK ENDING 8 A.M.,  
SATURDAY, THE 16TH OF SEPTEMBER 1898.**

At the end of the previous week, the cyclonic storm which had been forming in the Bay was moving in a north-westerly direction into the north-west angle. On the first day of the present week it underwent practically no change, as pressure remained steady at all the inland stations, and fell less than  $\cdot 04$  inch in Orissa. There was then a very wide-spread depression, extending over the whole of the Bay and the province of Bengal, the area of lowest pressure being in the north of the Bay between Arakan and Orissa. Within this area defect was more than  $\cdot 2$  inch, and at all the Bengal stations it was more than  $\cdot 1$  inch. The depression moved slowly to the north-west, and the centre crossed the coast between Saugor Island and Balasore about 8 A.M. on the following day, that is, the 11th. Large changes of pressure occurred near the centre, and defect increased to nearly  $\cdot 4$  inch at Saugor Island and Balasore, but, except in the south-western districts, readings were higher, and gradients much steeper to the east and north of the centre. With this increase of gradients squally weather became general in Lower Bengal, but more specially in the south-western districts, where heavy rain was falling.

The rise of pressure which had set in from the east continued to advance slowly, and the depression took a similar but more westerly course to that of the one which occurred exactly a week before. One important difference resulted from the slow advance of the wave of rising pressure. The centre of the depression, instead of moving 500 miles in the 24 hours after it crossed the coast, was still in the west of Chota Nagpur, and the steep gradients, with rough rainy weather, continued in the south-western districts. Pressure was then rising very rapidly in the north-west angle of the Bay, and more slowly over the whole province except in Chota Nagpur and part of South Bihar. On the 13th the rapid rise of pressure continued, but gradients were still moderately steep over the western districts, and general rain was falling, though in smaller quantities, in all districts except Assam, North Bengal, and North Bihar. Very heavy local falls occurred at some of the western stations, especially Vizagapatam, Puri, and Ranchi, where six or more inches were recorded.

As pressure continued to rise, the distribution became more uniform, weather moderated, and rainfall became scattered, and then entirely ceased in Lower Bengal and Orissa. Thus on the 14th only scattered showers fell in East Bengal, and part of South-West Bengal; on the 15th a large number of stations reported no rain, and on the 16th it had practically ceased. But during these days a ridge of relatively high pressure formed over Bengal, and the north of the Bay, running almost north and south; and when pressure began to fall, as it did, slowly on the 15th and 16th, this led to rainfall in the more northern districts which had hitherto during the existence of the disturbance been practically rainless. General moderately heavy rain fell in North Bengal and the adjacent part of Assam on the 16th, and this was practically the only rain reported on that day.

*Pressure.*—Readings were low in the early part of the week, while the depression crossed the south-western districts, and large changes occurred on the 11th and following days till the 14th. On the 11th there was a rapid fall in the north-west angle of the Bay near the centre of the depression, but the wave of rising pressure, which was advancing from the east, had on the 12th spread over the greater part of the province, causing almost normal readings in all districts except Chota Nagpur and Orissa. The rapid rise continued on the 13th and 14th chiefly in the western districts, and the resulting distribution was above the normal by amounts varying from  $\cdot 1$  inch to nearly  $\cdot 2$  inch. During the last two days of the week readings were very uniform, the difference between the lowest in the west of Bihar and the greatest in the south-east of the Bay being only a tenth of an inch. The mean difference from the normal for the week varies from defect of  $\cdot 02$  inch in Orissa and Chota Nagpur to excess of  $\cdot 06$  inch in North Bengal.

*Temperature.*—At the beginning of the week mean temperature differed very little from, but was generally above, the normal. As the disturbance advanced to the north-west and rainy weather became general, temperature fell rapidly at first in the south-western districts and afterwards over the whole province. Defect was more than  $6^{\circ}$  in south-west Bengal and Orissa on the 13th, and more than  $5^{\circ}$  in the central districts on the 13th. On the 14th and 15th comparatively cool weather continued, but temperature was increasing, though it was not till the 16th that means were again practically normal. The means for the larger divisions are below the normal except in Assam, by about half a degree in East and North Bengal and North Bihar,  $1^{\circ}$  in south Bihar,  $2^{\circ}$  in Chota Nagpur and  $2\cdot 5^{\circ}$  in Orissa and South-West Bengal.

*Rainfall.*—General heavy rain fell in the early part of the week in the south-western districts. In East Bengal the rainfall was general during the greater part of the week, but the falls were usually light, and on an average the normal amount has been reported. In Bihar and North Bengal falls were never heavy, and generally very scattered. There is therefore a large defect, especially in the more northern districts. In South Bihar average defect is  $\cdot 57$  inch, while in North Bengal the average fall is only 50 per cent. and in North Bihar less than 20 per cent. of the normal. In Orissa, on the other hand, mean excess is  $2\cdot 57$ , in South-West Bengal  $3\cdot 38$ , and in Chota Nagpur  $3\cdot 46$  inches.

The following places recorded falls of more than 10 inches:—Puri, Tamluk, Ghatal Garhbeta, Sanger Island, Mohesana, Jahanabad, Indee, Kotalpur and Ranchi, and, several other stations in the south-western districts reported more than 8 inches. The only falls of less than 5 inches occurred in Nadia, Jessore, Birbhumi, and Murshidabad.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 16th of September 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.							RAINFALL.								
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.		Since 16th May 1893.	
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.
Orissa	81° 3	72° 6	85° 0	77° 3	81° 3	-2° 3	5° 14	2° 37	+2° 37	4° 15	3° 34	+0° 51	8° 33	5° 39	47° 73	40° 30
South-West Bengal	81° 7	73° 9	85° 7	76° 4	81° 0	-2° 7	5° 45	2° 13	+3° 23	4° 78	2° 38	+1° 20	7° 03	5° 50	53° 39	43° 31
North Bengal	82° 4	71° 5	85° 1	76° 8	82° 5	-0° 4	1° 39	3° 03	-1° 44	3° 24	2° 05	-0° 41	4° 30	5° 01	63° 58	59° 44
East Bengal	81° 3	68° 3	86° 7	78° 8	81° 7	-0° 7	3° 47	2° 46	-0° 01	3° 30	3° 00	+0° 30	4° 39	7° 19	72° 71	63° 30
North Bihar	84° 3	74° 9	88° 6	77° 7	83° 2	-0° 4	0° 48	2° 45	-2° 03	0° 33	2° 37	-1° 34	3° 39	5° 35	42° 34	39° 75
South Bihar	82° 4	74° 3	87° 7	78° 1	82° 5	-1° 3	1° 53	2° 10	-0° 37	2° 39	2° 00	-0° 01	4° 77	5° 04	59° 53	56° 43
Chota Naxpur	80° 9	69° 9	82° 9	76° 3	77° 6	-1° 9	5° 35	2° 39	+3° 46	4° 57	3° 44	+1° 13	9° 75	5° 51	52° 37	41° 37
Assam	86° 6	73° 0	90° 1	76° 2	83° 2	+0° 3										

\* Daltonganj not included.

METEOROLOGICAL OFFICE, BENGAL,

C. LITTLE,

The 19th September 1893.

Offg. Meteorological Reporter to the Govt. of Bengal.

### Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 10th to 16th September 1893.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° F.	TEMPERATURE.						HYGROMETRY.			Rainfall, past 24 hours
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
September ...	10th ...	29.522	79.9	85.9	8.1	75.8	82.6	79.5	.968	78.2	87	0.66
" ...	11th ...	.446	77.6	78.9	2.6	76.3	78.6	77.7	.959	77.3	96	1.88
" ...	12th ...	.665	78.5	82.9	8.9	74.0	77.1	76.5	.908	76.3	97	1.40
" ...	13th ...	.809	80.9	87.0	12.2	74.8	82.6	80.0	.991	79.0	89	0.32
" ...	14th ...	.881	82.2	88.0	11.7	76.3	82.6	79.5	.968	78.2	87	0.69
" ...	15th ...	.868	83.2	90.0	13.7	76.3	85.1	80.5	.981	78.6	81	0.10
" ...	16th ...	.837	82.9	88.9	10.2	77.8	84.6	80.5	.987	78.6	83	...

The mean 10 A.M. pressure of the seven days ... .. Inches. 29.718

The mean temperature of the seven days ... .. 80.7

The extreme variation of temperature ... .. 16.0

The maximum temperature ... .. 90.0

The mean 10 A.M. relative humidity of the seven days ... .. % 89

The total fall of rain from 10th to 16th September 1893 ... .. Inch. 4.99

The daily mean temperatures are the crude means of maximum and minimum temperatures.

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA,  
The 18th September 1893.



## Results of the Meteorological Observations taken at the Alipore Observatory from 10th to 16th September 1893.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
Sept.	10th	133.7	0.2	Inches. 29.475	° 80.1	° 83.6	° 7.8	° 75.8	° 78.0	Inches 0.932	° 77.1	% 91	ENE ...	185	1.21	Chiefly cloudy, o, g, p, t, <.
"	11th	112.1	Nil	.450	78.9	80.1	3.4	76.7	77.7	.933	77.1	94	ENE and ESE ...	339	1.68	Cloudy, o, g, d, p.
"	12th	92.7	"	.633	78.1	78.6	4.9	73.7	76.9	.912	76.4	94	ESE and SE ...	175	2.39	Cloudy, o, g, d, p.
"	13th	147.8	1.7	.753	80.1	86.6	12.4	74.2	78.3	.946	77.5	92	ESE, SSE and SE	139	0.22	Chiefly cloudy, o, g, d, p.
"	14th	152.6	3.6	.832	80.5	85.9	9.7	76.2	78.6	.957	77.9	92	SE and SSE ...	66	0.49	Chiefly cloudy, o, d, p, t.
"	15th	150.2	8.8	.808	82.0	87.6	11.2	76.4	79.4	.970	78.3	89	SSE and SSW ...	52	Nil	Partially cloudy, <.
"	16th	155.8	1.2	.775	81.7	87.5	9.8	77.7	78.1	.915	76.6	85	SSW and S ...	32	"	Chiefly cloudy, t, <.

The mean pressure of the seven days ... .. Inches. 29.675

The average pressure of the corresponding period for 24 years, Surveyor-General's Office ... .. 29.666

The total number of hours of bright sunshine ... .. Hours. 15.5

The maximum possible number of hours of sunshine ... .. 86.0

The mean temperature of the seven days ... .. 80.2

The average temperature of the corresponding period for 24 years, Surveyor-General's Office ... .. 83.4

The extreme variation of temperature ... .. 13.9

The maximum temperature ... .. 87.6

The highest velocity of the wind in one hour ... .. Miles. 18

The highest pressure of wind on one square foot ... .. lbs. ?

The mean relative humidity ... .. % 91

The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office ... .. 86

The total fall of rain from 10th to 16th September 1893 ... .. Inches. 6.19

The average fall of the corresponding period for 24 years, Surveyor-General's Office ... .. 2.13

The total fall from 1st January to 16th September 1893 ... .. 75.96

The average fall of the corresponding period for 24 years, Surveyor-General's Office ... .. 54.37

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o, overcast; g, gloomy; d, drizzling rain; p, passing temporary showers; t, thunder; <, lightning; &, dew.

## IRRIGATION DEPARTMENT, BENGAL.

*Abstract statement showing Tollage on Canals in Bengal classed as Major Works for the month of July 1893, as compared with that of the corresponding month of the previous year.*

CANALS.	TOLLAGE, 1893-94.			TOLLAGE, 1892-93.		
	During the month.		To end of the month.	During the month.		To end of the month.
<i>Orissa Circle.</i>	Rs.	A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Taldanda Canal System	1,180	7 7	5,692 13 10	390 9 3	4,062 5 6	
Kendrapara ditto	12,447	4 1	25,413 10 4	3,826 3 1	14,336 15 10	
High Level, Range I	2,614	14 3	4,712 6 0	1,379 13 9	2,699 12 3	
Ditto, " II	558	11 0	1,002 7 9	155 12 6	486 12 6	
Ditto, " III	374	14 7	626 7 3	87 11 6	237 15 6	
Jajpur Canal ...	57	12 9	90 6 4	18 7 0	47 3 3	
Total Orissa Circle ...	17,234	0 3	37,538 3 6	5,858 9 1	21,871 0 10	
<i>South-Western Circle.</i>						
Midnapore Canal ...	8,940	0 0	32,200 12 6	11,288 2 0	40,270 8 0	
Hijili Tidal Canal ...	8,669	8 6	23,247 14 0	4,766 3 9	21,822 7 0	
Total South-Western Circle...	17,609	8 6	55,448 10 6	16,054 5 9	62,092 15 0	
<i>Sone Circle.</i>						
Patna Canal System ...	2,275	3 6	8,601 0 9	2,646 2 3	9,743 5 0	
Arrah ditto ...	1,311	6 6	9,062 0 3	1,743 8 6	7,809 6 6	
Buxar ditto ...	387	4 6	2,833 3 3	1,120 9 6	4,627 0 6	
Total Sone Circle ...	3,973	14 6	20,496 4 3	5,510 4 3	22,179 12 0	
GRAND TOTAL ...	38,817	7 3	1,13,483 2 3	27,423 3 1	1,06,143 11 10	

## Government Transport Service.

CANAL.	TOLLAGE, 1893-94.						TOLLAGE, 1892-93.					
	During the month.			To end of the month.			During the month.			To end of the month.		
	Passengers.	Goods.	Total receipts.	Passengers.	Goods.	Total receipts.	Passengers.	Goods.	Total receipts.	Passengers.	Goods.	Total receipts.
	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.
<i>Orissa Circle.</i>												
High Level ...	8,004	793	7,645 9 3	10,659	2,497	10,323 0 8	1,201	803	1,176 9 2	2,184	1,890	3,271 2 7
Total Orissa Circle ...	8,004	793	7,645 9 3	10,659	2,497	10,323 0 8	1,201	803	1,176 9 2	2,184	1,890	3,271 2 7

## Total Navigation Receipts.

CANALS.	EARNINGS, 1893-94.			EARNINGS, 1892-93.		
	During the month.		To end of the month.	During the month.		To end of the month.
	Rs.	A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Orissa Canals ...	24,879	9 6	48,061 4 2	7,035 2 3	25,142 3 5	
Midnapore Canal ...	8,940	0 0	32,200 12 6	11,288 2 0	40,270 8 0	
Hijili Tidal Canal ...	8,669	8 6	23,247 14 0	4,766 3 9	21,822 7 0	
Sone Canals ...	3,973	14 6	20,496 4 3	5,510 4 3	22,179 12 0	
Total ...	46,463	0 6	1,24,006 2 11	28,599 12 3	1,09,414 14 5	

CALCUTTA,  
The 19th September 1893.

O. O. LEEB,  
Offg. Under-Secy. to the Govt. of Bengal.

## IRRIGATION DEPARTMENT, BENGAL.

*Abstract statement showing Tollage on Canals in Bengal classed as Minor Works and Navigation for the month of July 1893, as compared with that of the corresponding month of the previous year.*

CANALS.	TOLLAGE, 1893-94.			TOLLAGE, 1892-93.		
	During the month.		To end of the month.	During the month.		To end of the month.
	Rs.	A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Calcutta and Eastern Canals ...	19,002	10 9	73,774 3 0	19,244	15 0	74,315 7 0
Tolly's Nala ...	6,576	3 6	22,809 11 6	5,664	2 9	22,338 5 3
Total ...	25,578	14 3	96,583 14 6	24,909	1 9	96,653 12 3
Orissa Coast Canal ...	18,568	6 0	36,937 0 3	4,093	13 0	18,275 2 9
Nadia Rivers ..	25,444	11 4	50,059 0 4	19,697	7 6	38,937 8 3
GRAND TOTAL ...	69,591	15 7	1,83,579 15 1	48,700	6 3	1,53,866 7 3

CALCUTTA,  
The 19th September 1893.

O. C. LEEB,  
Offg. Under-Secy. to the Govt. of Bengal.

## CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 16th September 1893, as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 16TH SEPTEMBER 1893.			WEEK ENDING SATURDAY, THE 17TH SEPTEMBER 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ...	321	76,828	894	182	44,750	705
Jute ...	103	44,775	779	149	40,930	703
Firewood ...	58	32,788	491	96	48,400	738
Other articles ...	649	1,35,200	2,038	837	1,71,840	2,449
Total ...	1,131	2,89,591	4,252	1,264	3,05,920	4,595

## EASTERN BENGAL STATE RAILWAY.

*Abstract of principal commodities carried over the Eastern Bengal State Railway during the month of June 1893, as compared with the same month of the previous year.*

STAPLES.	1893.		1892.		Total.		Increase.	Decrease
	Up.	Down.	Up.	Down.	1893.	1892.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Coal ... ..	3,736	13,723	2,649	2,361	20,150*	11,909*	8,181	.....
Cotton, raw ... ..	2	245	.....	93	247	93	154	.....
Cotton, twist and yarn—								
1.—European ... ..								
2.—Indian ... ..								
Cotton piece-goods—								
1.—European—								
a.—In bales and bundles ... ..	3,180	296	2,525	225	3,472	2,750	722	.....
b.—In boxes ... ..								
2.—Indian—								
a.—In bales and bundles ... ..								
b.—In boxes ... ..								
Grains—								
2.—Rice ... ..	2,704	2,051	9,005	892	4,815	9,897	.....	5,082
5.—Others ... ..	1,361	5,235	2,228	3,010	6,596	6,138	458	...
Hides and skins—								
1.—Hides of cattle—								
a.—Dressed ... ..								
b.—Undressed ... ..								
2.—Skins of sheep, &c.—								
a.—Dressed ... ..	9	676	6	615	645	621	64	.....
b.—Undressed ... ..								
Jute—								
1.—Raw—								
a.—Screwed ... ..	2	709	.....	9	801	9	792	.....
b.—Unscrewed ... ..	.....	2,569	.....	230	2,569	230	2,339	.....
2.—Gunny bags and cloth ... ..	261	1,032	254	621	1,313	815	498	.....
Metals—								
1.—Copper, unwrought ... ..								
2.—Brass, unwrought ... ..								
3.—Brass and copper, wrought ... ..	702	249	1,511	437	1,911	1,948	.....	967
4.—Iron ... ..								
5.—Tin ... ..								
6.—Others ... ..								
Oil—								
2.—Kerosine ... ..	7,565	12	6,752	36	8,607	6,788	1,819	.....
3.—Others ... ..	531	46	307	5	677	312	365	.....
Oil-seeds—								
1.—Linseed ... ..								
2.—Rape and mustard ... ..								
3.—Til or kongelly ... ..								
4.—Niger ... ..	271	4,403	339	2,744	4,674	3,074	1,600	...
5.—Castor ... ..								
6.—Poppy ... ..								
7.—Others ... ..								
Provisions—								
2.—Betel-nuts ... ..	160	801	127	879	961	1,006	.....	45
3.—Others ... ..	705	1,325	493	490	1,054	895	159	...
Railway plant and rolling-stock ... ..	.....	31	.....	41	9,977†	5,334†	4,643	.....
Salt ... ..	5,891	.....	6,684	.....	5,832	6,728	.....	896
Sugar—								
1.—Drained ... ..	606	1,754	780	1,006	2,360	1,786	574	.....
2.—Undrained ... ..								
Tea—								
1.—Foreign ... ..	.....	3,681	.....	3,279	3,681	3,279	402	.....
2.—Indian ... ..								
Wood—								
1.—Timber ... ..	175	151	511	159	326	670	.....	344
2.—Firewood ... ..	1,118	.....	1,139	.....	1,118	1,139	.....	21
Tobacco ... ..	173	2,016	110	3,394	3,080	3,504	.....	415
All other articles of merchandise—								
1.—Unmanufactured ... ..	4,551	5,625	4,000	4,047	10,170	8,050	2,120	.....
2.—Manufactured ... ..								
Hay, straw, and wooloo (C. & S.-E. Sections) ... ..	1,120	.....	1,225	.....	1,120	1,225	.....	105
Total ... ..	35,319	47,560	40,631	25,546	95,547	78,488	17,059	7,845

\* Includes 2,631 tons and 6,957 tons of coal during 1893 and 1892, respectively, carried for Revenue, for which no "Up" and "Down" register maintained.

† Railway plant and rolling-stock, 9,977 tons and 5,334 tons for the years 1893 and 1892, respectively, for which no "Up" and "Down" register maintained.

*Statement of principal commodities carried over the Eastern Bengal State Railway during the month of June 1893.*

## INCREASES.

	Tons.		Tons.
Coal ... ..	8,181	Oil-seeds ... ..	1,600
Cause of increase not fully explained.		Alamdan, Sonaili, Kasba, and Forbesganj show small increases under this head.	
Jute, unscrewed ... ..	2,280	Railway plant and rolling-stock ... ..	4,643
Season rather later than in 1892.		Chiefly from Calcutta and Chitpur for the Bengal Duars and Kuch Bihar State Railways.	
Kerosine oil ... ..	1,219		
Partly due to prohibition of carriage by boat within certain limits of the port of Calcutta, partly to extension of bulk oil traffic.			

## DECREASES.

	Tons.		Tons.
Rice ... ..	5,082	Salt ... ..	896
Coal and Northern Section Stations generally show decreases under this head. The probability of scarcity in the eastern districts arrested exports to Calcutta; up-country dealers preferring to hold.		Mostly in the upward despatches from Chitpur, due to less demand at up stations.	

Calcutta, the 12th September 1893.

JAMES SHAW,  
for Examiner of Accounts.

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 9th September 1893, on 1,610½ miles open.

	COACHING TRAFFIC		MERCHANDISE AND MINERAL TRAFFIC		Other earnings (estimated)	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers	Receipts	Weight carried	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ..	*213 267	Rs A P *2,40 007 5 0 154 15 10	Mds s 25 00 155 10	Rs A P 5,27 070 3 0 327 4 4	Rs A P 14,220 10 0 6 13 3	Rs A P 7,90 528 2 0 401 1 5	75,432½	97,840½	173,273
Or per mile of railway	..	..	..	..	..	..	..	..	..
For previous 9½ weeks of half-year ..	2,654,221	28 00 010 12 0	1,38 04 471 0	43,39,504 11 0	1 27 081 12 0	73 16,807 3 0	689,972½	876 259½	1,566,933
Total for 10½ weeks ...	2 907,488	31,00 624 1 0	2 23 09 628 10	48 56,578 14 0	1 41 302 6 0	81,07,505 5 0	775 405	954,100	1,729,505
COMPARISON.									
Total for corresponding week of previous year	279 788½	2 75,899 12 4	25 20 303 0	4 04 315 5 5	14 128 0 7	7,84,143 2 4	77,547	90,136	167,683
Per mile of railway corresponding week of previous year	..	171 4 0	..	3 10 14 11	8 12 5	486 14 4	....	...	....
Total for corresponding 10½ weeks of previous year	2,631,536	24,70 738 8 4	2 27 75 486 20	45 80 090 8 6	1,61 719 6 6	75,21 154 7 4	758,972	935 808	1 693,780

\* The decrease is due to figures for the corresponding period of 1892 having included earnings on account of Bhadrâ Purnima and "Upper Puckaha."

## TARKISSUR BRANCH RAILWAY

Approximate Return of Traffic for week ended 9th September 1893, on 22½ miles open.

	COACHING TRAFFIC		MERCHANDISE AND MINERAL TRAFFIC		Other earnings	Total earnings	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers	Receipts	Weight carried	Receipts			Coaching	Merchandise.	Total
Total traffic for the week	17 640	Rs A P 4,399 4 0 104 0 2	Mds s 11 405 30	Rs A P 423 0 0 19 0 7	Rs A P 9 0 0 0 6 6	Rs A P 4 761 13 0 214 0 3	808	70	908
Or per mile of railway	..	..	..	..	..	..	..	..	..
For previous 9½ weeks of half-year ..	*154 866	*37 212 0 0	185 362 10	12 616 6 0	181 0 0	30,969 15 0	8 258	670	8,934
Total for 10½ weeks	172 806	51 541 13 0	90 796 0	3 039 15 0	90 0 0	44,671 12 0	9,156	746	9,902
COMPARISON.									
Total for corresponding week of previous year	17 930½	4,399 2 9	5 705 30	206 0 0	7 1 0	4 513 10 6	911	57	908
Per mile of railway corresponding week of previous year	..	103 2 10	..	9 5 10	0 5 1	202 13 0	...	...	....
Total for corresponding 10½ weeks of previous year	192,064	46,159 0 8	56 507 10	2,109 12 0	80 1 0	48,438 15 8	9 449	605	10,054

\* Deducted number of passengers 1,019 and Rs 071½ } on account of difference between the approximate and audited figures for the week ended 5th August 1893.  
† Added maunds 23 only  
‡ Deducted .. 2 }

## DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for week ended 9th September 1893, on 161½ miles open.

	COACHING TRAFFIC		MERCHANDISE AND MINERAL TRAFFIC		Other earnings (estimated)	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers	Coaching receipts.	Weight carried.	Receipts			Coaching	Merchandise	Total
Total traffic for the week ..	16 409	Rs A P 12,401 15 0 70 11 5	Mds s 37,778 10	Rs A P 7 235 15 0 44 13 4	Rs A P 31 0 0 0 3 1	Rs A P 10 609 14 0 121 13 10	6,803	2,486	8 001
Or per mile of railway	..	..	..	..	..	..	..	..	..
For previous 9½ weeks of half-year ..	*149,023	*1,20 014 2 0	14 87 805 30	101,936 10 0	1298 0 0	1,38,528 12 0	56,124	24,918	81,042
Total for 10½ weeks	205 522	1,39,318 1 0	4,95,674 0	68,562 0 0	319 0 0	2,08 127 10 0	62 327	27,406	89,733
COMPARISON									
Total for corresponding week of previous year	14,330	11,666 8 1	33 181 30	6,762 13 0	28 5 3	18,367 10 4	6,329	2 042	8 471
Per mile of railway corresponding week of previous year	..	71 10 7	...	41 14 5	0 2 10	113 11 10	...	..	...
Total for corresponding 10½ weeks of previous year ..	180 616½	1,22 415 15 1	3 73 402 10	61,541 13 6	399 5 6	1,84 537 2 1	60,277	25,360	91,646

\* Deducted number of passengers 602 and Rs 1 250 } on account of difference between the approximate and audited figures for the week ended 5th August 1893.  
† Added maunds 37,538 and .. 7½  
‡ Ditto .. 7 }

EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K.-D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for the week ended 2nd September 1893, on 777\* miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	154,910	68,200 0 0	10,40,820 0	2,13,310 0 0	12,050 0 0	2,04,160 0 0	28,000	36,276	64,276
Or per mile of railway ...	199	89 0 0	1,349 0	274 0 0	12 0 0	194 0 0	...	...	...
For previous 8 weeks of half-year ...	1,353,100	5,72,340 0 0	62,29,230 0	10,39,870 0 0	1,22,080 0 0	17,34,890 0 0	227,217	290,689	447,866
Total for 9 weeks ...	1,508,010	6,40,540 0 0	62,29,050 0	12,53,180 0 0	1,33,330 0 0	20,29,050 0 0	255,217	256,915	512,132
COMPARISON.									
Total for corresponding week of previous year ...	143,603	60,170 0 0	8,11,097 0	2,07,476 0 0	12,352 0 0	2,79,004 0 0	20,500	40,105	60,605
Per mile of railway corresponding week of previous year ...	185	76 0 0	1,045 0	267 0 0	11 0 0	1344 0 0	...	...	...
Total to corresponding date of previous year ...	1,304,124	5,51,254 0 0	57,40,490 0	13,00,350 0 0	1,42,075 0 0	20,02,679 0 0	247,347	310,025	557,372

\* Due to Pauchooriah Branch having been extended for 74 miles (vide Statement No. XIII of the Revenue Accounts for 1st half of 1893).  
† Excluding steamer earnings.

EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K.-D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for the week ended 9th September 1893, on 777 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	300,500	74,000 0 0	10,35,160 0	2,13,240 0 0	12,090 0 0	3,00,000 0 0	28,084	36,998	65,072
Or per mile of railway ...	258	86 0 0	1,331 0	274 0 0	*1 0 0	*370 0 0	.....	.....	.....
For previous 8 weeks of half-year ...	1,508,010	6,40,540 0 0	62,29,050 0	12,53,180 0 0	1,35,330 0 0	20,29,050 0 0	255,217	256,915	512,132
Total for 10 weeks ...	1,708,510	7,14,630 0 0	72,64,210 0	14,66,400 0 0	1,48,020 0 0	23,29,060 0 0	283,301	293,903	577,204
COMPARISON.									
Total for corresponding week of previous year ...	164,654	59,007 0 0	8,90,772 0	3,29,393 0 0	13,002 0 0	3,02,062 0 0	20,660	41,363	68,043
Per mile of railway corresponding period of previous year ...	212	77 0 0	1,146 0	395 0 0	*1 0 0	*373 0 0	.....	.....	.....
Total to corresponding date of previous year ...	1,528,778	6,10,921 0 0	66,31,271 0	15,38,743 0 0	1,55,077 0 0	23,05,641 0 0	274,007	351,408	625,415

\* Excluding steamer earnings.

BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for the week ended 2nd September 1893, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	33,420	10,220 0 0	68,100 0	6,660 0 0	80 0 0	10,970 0 0	3,020	1,743	5,073
Or per mile of railway ...	267	82 0 0	545 0	53 0 0	1 0 0	136 0 0	...	...	...
For previous 8 weeks of half-year ...	277,470	86,760 0 0	3,82,040 0	30,740 0 0	680 0 0	1,18,160 0 0	29,735	16,704	46,439
Total for 9 weeks ...	310,910	96,980 0 0	4,50,200 0	37,400 0 0	760 0 0	1,35,180 0 0	33,604	18,447	52,111
COMPARISON.									
Total for corresponding week of previous year ...	26,151	8,118 0 0	60,188 0	6,040 0 0	387 0 0	14,534 0 0	3,484	2,596	5,880
Per mile of railway corresponding week of previous year ...	209	65 0 0	482 0	48 0 0	3 0 0	116 0 0	...	...	...
Total to corresponding date of previous year ...	271,534	83,802 0 0	4,25,678 0	34,378 0 0	1,068 0 0	1,10,248 0 0	33,613	10,098	52,911

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for the week ended 9th September 1893, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	34,770	10,510 0 0	79,810 0	6,170 0 0	150 0 0	16,840 0 0	8,503	2,169	5,672
Or per mile of railway ...	278	84 0 0	638 0	50 0 0	1 0 0	135 0 0	...	...	...
For previous 9 weeks of half-year ...	310,010	96,080 0 0	4,50,200 0	37,400 0 0	750 0 0	1,35,130 0 0	33,064	18,447	52,111
Total for 10 weeks ...	345,080	1,07,490 0 0	5,30,010 0	43,570 0 0	900 0 0	1,51,060 0 0	37,107	20,616	57,783
COMPARISON.									
Total for corresponding week of previous year ...	33,098	8,056 0 0	78,061 0	8,321 0 0	210 0 0	17,187 0 0	8,596	2,700	6,396
Per mile of railway corresponding week of previous year ...	265	69 0 0	624 0	66 0 0	2 0 0	137 0 0	...	...	...
Total to corresponding date of previous year ...	304,632	92,438 0 0	5,03,030 0	42,009 0 0	1,278 0 0	1,30,435 0 0	37,400	21,798	50,207

## DACCA STATE RAILWAY.

Approximate Return of Traffic for the week ended 2nd September 1893, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	16,230	5,590 0 0	21,370 0	1,640 0 0	130 0 0	7,300 0 0	2,544	690	3,234
Or per mile of railway ...	189	65 0 0	248 0	19 0 0	2 0 0	86 0 0	...	...	...
For previous 8 weeks of half-year ...	125,730	38,400 0 0	1,29,650 0	8,170 0 0	1,230 0 0	47,050 0 0	20,343	5,919	26,362
Total for 9 weeks ...	141,960	44,090 0 0	1,51,020 0	9,810 0 0	1,420 0 0	55,310 0 0	22,887	6,509	29,486
COMPARISON.									
Total for corresponding week of previous year ...	16,105	5,067 0 0	23,501 0	1,924 0 0	88 0 0	7,079 0 0	2,544	680	3,224
Per mile of railway corresponding week of previous year ...	187	59 0 0	262 0	22 0 0	1 0 0	82 0 0	...	...	...
Total to corresponding date of previous year ...	140,706	46,036 0 0	1,31,094 0	9,677 0 0	1,814 0 0	53,117 0 0	23,033	6,817	30,150

## DACCA STATE RAILWAY.

Approximate Return of Traffic for the week ended 9th September 1893, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	29,640	8,290 0 0	24,300 0	2,000 0 0	60 0 0	10,350 0 0	2,487	737	3,224
Or per mile of railway ...	345	96 0 0	283 0	23 0 0	1 0 0	120 0 0	...	...	...
For previous 9 weeks of half-year ...	141,960	44,080 0 0	1,51,020 0	9,810 0 0	1,420 0 0	55,310 0 0	22,887	6,509	29,486
Total for 10 weeks ...	171,600	52,370 0 0	1,75,320 0	11,810 0 0	1,480 0 0	65,660 0 0	25,374	7,336	32,710
COMPARISON.									
Total for corresponding week of previous year ...	15,058	4,060 0 0	26,346 0	2,341 0 0	160 0 0	7,464 0 0	2,539	685	3,224
Per mile of railway corresponding week of previous year ...	186	58 0 0	312 0	27 0 0	2 0 0	87 0 0	...	...	...
Total to corresponding date of previous year ...	166,734	51,586 0 0	1,58,840 0	12,021 0 0	1,074 0 0	65,581 0 0	25,472	6,902	32,374

## BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIBET STATE RAILWAY.)

Approximate return of traffic for the week ending 9th September 1893, on 756 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs.	Mds.	Rs.	Rs.	Rs.			
Total traffic for the period on 756 miles open ... ..	82,890	30,100	2,07,080	27,170	8,110	65,380	12,622	16,871	28,893
Or per mile of railway ... ..	109.25	39.81	273.92	35.94	10.73	86.48	.....	.....	.....
For previous 9½ weeks of half-year* ... ..	820,959	3,09,807	10,01,801	2,64,067	91,687	6,66,861	115,779	130,864	255,643
Total for 10½ weeks ... ..	903,549	3,39,907	21,08,071	2,91,837	99,897	7,31,741	128,401	150,235	284,036
COMPARISON.									
Total for corresponding period of previous year on 755 miles open ... ..	84,747	31,355	2,07,950	22,811	7,172	61,338	14,048	13,001	27,049
Per mile of corresponding week of previous year ... ..	112.25	41.53	275.43	30.21	9.50	81.24	.....	.....	.....
Total to corresponding date of previous year ... ..	850,718	3,07,193	20,00,534	3,27,287	80,395	7,14,875	138,216	157,105	295,321

\* Includes audited figures up to 22nd July 1893.

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

						Rs.	A.	P.
Approximate earnings for the week ending 9th September 1893	...	...	...	...	...	10,551	0	0
Corresponding period of 1892	...	...	...	...	...	7,529	0	0
Increase	...	...	...	...	...	3,022	0	0
Receipts per mile for the week ending 9th September 1893	...	...	...	...	...	206	14	1
Corresponding period of 1892	...	...	...	...	...	147	10	0
Increase	...	...	...	...	...	59	4	1
Receipts from 1st July to 9th September 1893	...	...	...	...	...	1,08,473	0	0
Corresponding period of 1892	...	...	...	...	...	1,05,279	0	0
Increase	...	...	...	...	...	3,194	0	0





# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, SEPTEMBER 27, 1893.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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## RESOLUTION ON THE REPORT ON THE ADMINISTRATION OF THE CUSTOMS DEPARTMENT FOR THE YEAR 1892-93.

### FINANCIAL DEPARTMENT—SEPARATE REVENUE.

*Darjeeling, the 22nd September 1893.*

RESOLUTION—No. 171T—F.

READ—

The Report on the Administration of the Customs Department for the year 1892-93.

The Customs Reports submitted to Government in previous years, while embodying interesting and valuable information regarding the seaborne trade of the province, were considered by Sir Charles Elliott not to have treated with sufficient fulness of the collection of customs duty and the growth of dutiable trade. The Board were accordingly enjoined by Government in January last to give greater prominence to these subjects in future reports: it was directed that a special Chapter should be devoted to dutiable goods showing, port by port, the imports and exports, their fluctuations in respect of quantity, value, and duty, and their destination, *i.e.*, whence they came and whither they were transported: at the same time it was pointed out that neither the form of the Report nor the system of compiling the figures therein given was to be altered in any way that might conflict with the standing orders of the Government of India on the subject. The present report has been prepared in accordance with these instructions.

2. *Customs duty.*—The following table shows the gross and net customs duty, inclusive of that on imported salt, collected in Bengal during the past five years, as well as in the year before and after the remission of the general import duties which came into force on the 10th March 1882:—

	1880-81.	1881-82.	1882-83.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6	7	8	9
Import duty (excluding duty on salt.)	Rs. 72,72,428	Rs. 61,72,301	Rs. 14,87,018	Rs. 21,01,242	Rs. 24,45,083	Rs. 20,76,754	Rs. 28,08,900	Rs. 31,00,025
Ditto on salt	2,27,44,888	2,37,16,928	1,74,72,613	2,27,28,687	2,25,83,827	2,30,00,650	2,30,34,018	2,40,16,651
Export duty	17,00,354	20,46,800	21,28,492	17,00,400	10,08,445	20,80,011	22,43,551	15,97,330
Total gross duty	8,18,10,170	8,10,35,618	2,10,88,123	2,65,09,336	2,60,37,055	2,78,31,424	2,80,86,469	2,90,20,006
Refunds and drawbacks—								
Imports	3,37,096	3,04,496	3,20,636	2,81,544	3,12,607	3,13,188	3,32,736	2,63,270
Exports	71,979	1,05,519	1,16,840	84,930	31,000	70,225	1,02,850	72,880
Total	4,09,075	4,09,915	4,37,476	3,66,474	3,44,303	3,83,411	4,35,586	3,36,156
Total net duty	3,71,07,095	3,15,25,613	2,06,50,647	2,32,32,861	2,26,92,752	2,74,48,013	2,85,50,883	2,86,83,850

The increase in the net revenue of the province amounts to Rs. 1,32,967, or 4 per cent. as compared with the previous year, and the total net duty realised is now only 8·6 per cent. less than what it was in 1880-81 previous to the reduction of the salt duty and the remission of all import duties, except those on arms and ammunition, liquors and opium. There was an increase of Rs. 3,20,387 in the import duty on general merchandise, the result of larger realisations from kerosine-oil. On the other hand, receipts from export duty, which is levied on rice alone, show a falling off of Rs. 3,16,257 owing to a decline in the trade attributed to the heavy shipments of rice in the previous year, and to an increase in the price of rice during the year under review.

3. At pages 6 and 7 of the Report an elaborate table is given, showing in detail the duty realised on the imports and exports of the different dutiable goods at the several ports in Bengal during the last five years. The following statement gives in abstract the results shown in that table for the years 1891-92 and 1892-93:—

*Import duty.*

	Calcutta.	Chittagong.	Orissa Ports.	Narainganj.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.
Arms	1,00,540	.....	.....	.....	1,00,540
1891-92	1,45,061	.....	.....	.....	1,45,061
1892-93	.....	.....	.....	.....	.....
Liquors	16,02,662	816	120	.....	16,03,598
1891-92	16,76,130	350	148	.....	16,76,928
1892-93	.....	.....	.....	.....	.....
Oil	10,23,101	18,496	256	.....	10,41,853
1891-92	12,57,132	16,764	7,513	.....	12,81,709
1892-93	.....	.....	.....	.....	.....
Opium	2,000	.....	.....	.....	2,000
1891-92	2,327	.....	.....	.....	2,327
1892-93	.....	.....	.....	.....	.....
TOTAL	27,89,212	19,312	376	.....	28,08,900
1891-92	30,86,050	17,114	7,001	.....	31,00,025
1892-93	.....	.....	.....	.....	.....
Salt	2,27,36,585	6,85,412	.....	4,68,021	2,39,34,018
1891-92	2,30,36,078	6,18,380	.....	3,02,108	2,40,16,651
1892-93	.....	.....	.....	.....	.....
GRAND TOTAL	2,55,84,797	7,04,724	376	4,63,021	2,67,42,918
1891-92	2,61,77,023	6,35,494	7,901	3,02,198	2,71,22,616
1892-93	.....	.....	.....	.....	.....

*Export duty.*

	1891-92.	1892-93.
	Rs.	Rs.
Calcutta	19,40,320	16,84,876
Chittagong	70,307	43,070
Orissa ports	2,32,918	1,68,475
Narainganj	.....	.....
Total	22,43,551	18,97,330

4. As was to be expected, the increase in dutiable imports in Calcutta occurred chiefly under salt and mineral oil. The receipts from salt are slowly expanding, but those from oil have grown rapidly. Liquors also yielded a slight increase, while the receipts from arms and opium fell off. The course

of the trade in kerosine-oil used for burning purposes during the last few years has been very remarkable, as will be seen from the following statement:—

COUNTRY OF EXPORT.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6
	Gals.	Gals.	Gals.	Gals.	Gals.
United Kingdom...	1,423	2,029	4,904	3,399	110,043
United States ...	15,228,333	24,439,980	26,076,892	22,174,615	20,014,134
Russia—Batoum ...	3,371,406	1,603,899	2,157,592	10,561,006	20,103,818
Other countries ...	.....	225	287	175	173
Total ...	18,601,162	26,046,133	28,239,675	32,739,195	40,228,168

The whole trade has steadily increased during the last five years. The year under report is remarkable for the enormous increase in imports from Batoum, which place for the first time shows a larger total export than the United States. The increase in shipments from the United Kingdom is also noteworthy. For the first time oil has been imported in bulk, during the year a tank steamer brought from Batoum 1,326,852 gallons, by far the largest quantity ever imported in one vessel. This innovation, by which it is said the price of oil can be reduced by 10 or 12 annas per case, bids fair to revolutionise the trade.

5. The imports of ale, beer and porter partially recovered the heavy fall of the previous year, but are still much below those of 1888-89 and 1889-90. Of spirits, whisky alone showed an increase, the total imports amounting to 159,059 gallons, the highest total yet reached. Brandy, gin and other sorts of spirits all showed a falling off. The total importations of spirit showed a decline of 10,241 gallons, but the actual consumption was probably not less than last year, for the stocks at the close of the year were reduced by 15,141 gallons. Of wines and liqueurs there was a falling off of 6,785 gallons, or  $5\frac{1}{2}$  per cent. in the importations, the decline being most noticeable in champagne: claret and port alone showed a slight improvement. These results the Board ascribe, no doubt correctly, to the general shrinkage in incomes caused by the decreased value of the rupee. There was an increase in the amount of Australian wine imported, but the amount is still comparatively small, and these wines do not yet appear to have secured a firm position. The falling off in exports occurred under rice for the reasons already explained.

6. The principal dutiable articles of the trade with Chittagong are kerosine-oil, salt and rice, the receipts from all of which declined in the past year. Balasore and Puri did not import any dutiable goods from foreign ports, while Cuttack imported a larger quantity of kerosine-oil, increased collections amounting to Rs. 7,813 being obtained from this article. The only dutiable article imported into Narainganj is salt, which is conveyed there from Chittagong under bond: no foreign trade is carried on with Narainganj.

7. *Value of trade.*—It has been commonly stated that the year 1892 was one of the worst years for trade ever known in Calcutta, and the figures supplied in the Board's Report show that as a fact trade was bad both in Calcutta and in the other ports of the province. The following statement compares the value of the import and export trade in the last two years under the three main heads of goods, treasure, and Government transactions, as well as the total trade of the province, both import and export:—

	Goods.		Treasure.		Government transactions.		Total.		Increase.	Decrease.
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.		
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		
I. Import trade	30,82,91,522	28,07,23,042	3,40,50,332	2,63,12,024	98,36,218	1,52,55,834	35,80,84,072	32,22,91,400	.....	3,07,92,672
II. Export ...	48,42,16,038	48,90,41,974	2,22,70,520	1,41,93,344	37,58,280	38,56,603	51,02,48,945	50,70,92,011	.....	22,56,934
III. Total trade of Province ...	79,25,07,560	77,03,64,816	5,72,32,861	4,05,06,208	1,35,92,498	1,91,12,527	86,83,32,017	82,92,83,411	.....	8,30,49,506

Excluding Government transactions, the total value of imports shows a decrease of Rs. 3,62,12,288, and that of exports a decrease of Rs. 23,57,247. The causes of these fluctuations will be reviewed further on in this Resolution. Taking imports and exports together, the total value of the trade of the year, exclusive of Government transactions, decreased by Rs. 3,85,69,535 as compared with the figures of 1891-92.

8. *Foreign Trade of Calcutta.*—The bulk of the foreign trade of Calcutta is carried on with the United Kingdom, but the proportion which this trade bears to the whole foreign trade of the port, and which in 1890-91 was the lowest for ten years, has again slightly declined, and now stands at 57·18 per cent. The volume of trade with China, which continues to stand second in the list, also shows a decline from 10·02 to 8·83 per cent. on the whole trade of the port, the result of smaller receipts of treasure from Hong-Kong and the Treaty ports, and the more restricted shipment of opium to Hong-Kong. The United States come third, and the trade with that country appears to have revived from the depression noticed in 1891-92. Germany has again advanced, the percentage having risen from 4·50 to 4·98. The trade of Calcutta with the Straits Settlements is declining, while that with Ceylon is steadily on the increase.

9. The proportion which the foreign trade of Calcutta carried through the Suez Canal bears to the total trade fell from 68·6 per cent. in 1891-92 to 68·1 per cent. in the year under review. The decrease was entirely confined to imports, the exports showing a rise of about 41 lakhs in value.

10. The following table shows the fluctuations in shipping during the past two years:—

<i>Arrivals and Departures.</i>				
	1891-92.			
			Number.	Tonnage.
Steam vessels	...	...	681	1,335,205
Sailing	...	...	402	580,693
Native craft	...	...	42	6,898
	Total			1,922,796
	1892-93.			
Steam vessels	...	...	611	1,298,244
Sailing	...	...	421	651,582
Native craft	...	...	23	4,444
	Total			1,954,270

Account is here taken of those steamers only which arrive and leave without touching at any other Indian port. Although the total tonnage has advanced by 31,474 tons, the total number of steam-vessels has fallen off by 40. In sailing vessels, the steady decline, both in number and tonnage, observed in previous years has, for the present, been checked. The trade with the United Kingdom shows a net decrease of 10 vessels, with Germany of 9, and with the United States of 1, while China shows an increase of 7 vessels.

11. *Calcutta Imports.*—The total value of imports, including treasure, into Calcutta from foreign countries again fell, viz., from Rs. 28,65,72,342 to Rs. 25,43,01,406 in 1892-93, the net decrease in merchandise amounting to Rs. 2,12,81,303, and in treasure to Rs. 1,09,89,633. The value of dutiable goods, however, shows an increase of Rs. 20,61,749. The following table shows the value of the principal articles of merchandise imported during each of the last two years:—

	1891-92.	1892-93.
	Rs.	Rs.
Cotton-goods (including twist and yarn)	13,55,20,480	12,51,05,372
Metals	2,44,88,028	2,08,16,248
Mineral oil (for burning and lubricating)	1,34,49,052	1,56,41,143
Machinery	82,63,844	83,31,033
Woollen goods	63,84,025	62,13,269
Sugar	47,30,967	27,27,551
Salt	49,53,116	48,55,575
Liquors	44,90,858	44,00,796
Hardware	34,44,094	31,11,383

While cotton goods continued to occupy the foremost place in the import trade, their proportion to the total importations declined during the year by nearly 8 per cent: the falling off occurred both in piece-goods and twist and yarn. The metal trade which had materially recovered in 1891-92 from the decline in the preceding year fell off again during the year under review. This unfavourable result is attributed to the heavy fall in the importations of Australian copper, Japanese copper from Hong-Kong, and unwrought copper from the United Kingdom. The trade in mineral oils continues to expand as has already been stated. A special feature in the trade in machinery and mill-work is the large importation of machinery for the manufacture of paper. The trade in woollen goods received a check during the year owing to large stocks having been left at the close of the preceding year. Sugar continues to show a decline in importations. The decrease in the importation of salt and liquors has already been noticed in a preceding paragraph. The steady progress in the imports of hardware received a check during the year under review. Among other items it may be observed with satisfaction that in these provinces country coal is gradually displacing imported coal, the exports (211,218 tons) far exceeding the imports (12,565 tons) during the year, the latter figures being the smallest known for many years. Matches show an advance of 14½ per cent. in importations, Japanese matches which are said to be made by hand having been received in much larger quantities than in 1891-92. The importations of tea have fallen to the lowest point yet touched, Indian tea having almost altogether supplanted the China leaf in the favour of the public.

12. *Calcutta Exports.*—The total value of exports from Calcutta to foreign countries, including treasure, again rose, viz. from Rs. 38,91,36,558 in 1891-92 to Rs. 41,04,16,430 in 1892-93, this being a higher figure than any yet recorded. In dutiable goods, that is in rice, there was a decrease of Rs. 1,87,963; in free goods there was an increase of Rs. 1,78,02,607. The following statement gives the value of the principal articles of Indian produce and manufacture exported in 1891-92 and 1892-93—

	1891-92. Rs.	1892-93. Rs.
Jute, raw	6,08,27,524	7,19,71,637
Opium	6,01,47,915	5,98,50,325
Tea	5,63,31,095	6,06,74,386
Oilseeds	4,13,45,725	3,22,59,426
Rice	3,26,87,662	3,25,26,271
Indigo	2,63,60,394	2,60,04,461
Jute (gunny-bags and cloths)	2,45,38,536	3,17,58,214
Hides and skins ..	2,25,72,638	2,50,84,939
Wheat	2,11,85,172	1,52,42,488
Raw cotton	30,85,633	63,58,537

The decline in the exports of jute in the previous year has been followed by an increase in the year under review; for the crop was good and prices were low during the months of largest shipments. For the first time the trade in tea has shown a decline in the quantity exported, though the total value of the exports continues to show an increase, the average selling price having risen by one anna. The Collector of Customs draws attention to the decline in the export of tea from Calcutta to Australia and the simultaneous increase in exports from Ceylon, the figures being respectively 3,879,303 lbs. from the former and 5,042,648 lbs. from the latter, and there is little doubt that Ceylon is making every effort to obtain command of the trade. China tea shows no signs of recovery in foreign markets, but Ceylon tea continues to advance in favour. The trade in oilseeds, particularly linseed, which had advanced in the preceding year, fell off again in the past year, having gravitated towards Bombay. The exports of indigo were the lowest recorded for many years; the outturn, owing to unfavourable weather, amounting to barely half that of the previous year; prices, however, rose proportionately, so that the value of the crop exported was not below the average. The remarkably large increase in the exports of wheat in 1891-92 was arrested during the year under review owing to a short crop and the low prices ruling in the foreign markets; the bulk of the shipments was as usual consigned to the United Kingdom. A better crop and higher prices in Europe stimulated the cotton trade during the year, the

percentage of exports having risen from .7 to 1.5: Bengal cotton, however, owing to its short staple, is not much in request in the English market.

13. *Treasure*.—The net imports of gold and silver declined by 65½ and 73⅔ lakhs, respectively.

14. *Coasting trade of Calcutta*.—After an advance in the two years preceding 1892-93, the coasting trade of Calcutta again fell off, the imports having decreased by Rs. 50,16,190, and the exports by Rs. 86,08,087: the decrease was confined to Indian produce.

15. *Chittagong*.—The total value of the trade of Chittagong shows a decline of Rs. 19,17,194 as compared with the previous year, the decrease affecting both foreign and coasting trade. The falling off under foreign trade is attributed to smaller imports of kerosine oil, and smaller exports of rice, jute, and tea, and under the head of coasting trade it is ascribed to smaller imports of piece-goods and smaller shipments of paddy, salt and spices. The amount of customs duty declined from Rs. 7,75,031 in 1891-92 to Rs. 6,79,473 in 1892-93.

16. *Orissa Ports*.—The following statement shows an abstract of the import and export trade of the Orissa ports during the last two years:—

<i>Cuttack.</i>				1891-92.	1892-93.
				Rs.	Rs.
Foreign	...	...	...	33,79,111	27,56,539
Coasting	...	...	...	8,22,161	6,58,897
Total				42,01,272	34,15,436
<i>Puri.</i>					
Foreign	...	...	...	3,41,728	1,68,141
Coasting	...	...	...	2,22,761	1,36,858
Total				5,64,489	3,04,999
<i>Balasore.</i>					
Foreign	...	...	...	3,72,900	3,94,245
Coasting	...	...	...	1,21,46,539	1,03,51,964
Total				1,25,19,439	1,07,46,209

In all these ports there has been a shrinkage of trade during the year under review, and the customs duty realised declined from Rs. 2,33,294 to Rs. 1,76,435.

17. *Narainganj (Dacca)*.—The total trade of Narainganj, which is carried on with the coast ports only, fell from Rs. 73,00,346 to Rs. 72,34,513 in 1892-93. The customs duty, which represents exclusively the duty levied on salt imported from Chittagong under bond, fell from Rs. 4,53,021 to Rs. 3,02,198.

18. The Lieutenant-Governor's thanks are due to the Board of Revenue for their supervision of the Customs Department during the year, and to Mr. Marriott for his efficient administration of the department, and for the full and interesting report submitted by him. The names of the officers who are favourably noticed by the Board, with the remarks recorded, will be communicated to the Appointment Department.

By order of the Lieutenant-Governor of Bengal,

J. A. BOURDILLON,

*Offg. Secretary to the Govt. of Bengal.*

## FLOODS IN CERTAIN PARTS OF THE DACCA, CHITTAGONG, AND PATNA DIVISIONS.

REVENUE DEPARTMENT, AGRICULTURE.—No. 1140T.—R.

*Darjeeling, the 22nd September 1893.*

### RESOLUTION.

READ—

Correspondence between this Government and the Commissioners of the Patna, Dacca, and Chittagong Divisions on the subject of floods which have prevailed in parts of those Divisions.

Early in August reports reached the Officiating Lieutenant-Governor that there had been excessive floods in certain parts of the Dacca, Patna, and Chittagong Divisions, and that some injury to the crops and possibly some distress in the affected localities might ensue. Accordingly the attention of the local officers concerned was called to these reports, and instructions were issued that prompt inquiries should be made by Collectors and Commissioners themselves in the affected areas.

2. The results of these inquiries show that there is nowhere any ground for apprehending famine; nor is there reason for thinking that there may be serious distress over any considerable area, though undoubtedly hardship has been caused in isolated localities.

The Commissioner of Patna, after a tour of inspection in his Division, reported on the 17th instant that there is no apprehension of serious distress in the flooded tracts. Considerable areas in which the crops had been destroyed are being replanted, the public health is good, the condition of cattle is also good, and no relief works are at present necessary. In Champaran there was no loss of cattle from the floods. In the other districts of North Bihar the loss was inappreciable, the cattle having been removed in time to high lands.

3. The Commissioner of Chittagong reported on the 14th instant that prospects continue to improve; there are no authenticated cases of distress; transplanting of rice gives ample labour in the fields, and unskilled labour of coolies is not procurable at less than 5 annas a day. On the 21st he reported that there was no keen distress in Tippera and Noakhali requiring relief from Government at present.

4. In the Dacca Division there is a small tract, known as the *bil* country, in the Backergunge and Faridpur districts, with a population of about 40,000 persons, in which there is likely to be some scarcity, possibly even distress.

Here, in what have been described as "fantastic floating islands," splendid crops of aus and aman rice are reaped in years when the rise of the water is slow. Special long-stemmed kinds of aus and aman rice are sown together in March and April, and grow up in favourable years with the rise of the rivers in May and June—the aman rice with stems from five to seven yards in length. But if the water rise suddenly, as happened this year, before the seed can be sown, or so soon after that the seedlings are submerged, a complete failure of crops usually results. This is to a great extent what has taken place this year. But the tract happily does not rely for food on the rice crop alone. The supply of fish is inexhaustible, and part of the population being fishermen, food is procurable by them independently of their rice crops. The remainder of the population consists mostly of Christians, Mussalmans, and Namas. These have been accustomed to move elsewhere in search of labour; but as the aus crop is light, and as earthwork does not in these districts begin before December, these people, if not assisted, will be pinched, if not subjected to still greater distress.

To test the reality of the complaints of distress made last month in this tract, test relief works were opened, but nobody would work upon them at the wages prescribed in the Famine Code, and the complaints died away. They have been again raised, and Sir Antony MacDonnell has again ordered test relief works to be started. The District Officers are carefully watching for signs of distress, and have been instructed to make agricultural loans and to take such other measures as they may on personal enquiry find to be necessary.

In making agricultural loans care is necessary lest the amounts advanced are expended on payment of rent, and not in the support of the recipients.

5. Some loss of cattle by drowning and disease is reported from the Narainganj and Munshiganj subdivisions of Dacca, and from parts of Noakhali and Faridpur, but the disease is now abating everywhere excepting Noakhali, where the Commissioner reported on the 21st instant that it had reappeared. Want of fodder is felt in parts of Noakhali, Tippera, Dacca, and Faridpur, but the urgency of this want should diminish with every day that passes.

6. All experience points to the great improbability of anything like severe distress being caused by floods in limited areas in districts like Faridpur and Backergunge, which have hitherto been safe from famine, and are in fact among the granary districts of India. No doubt the excessive floods have caused much individual inconvenience and hardship; but the information before Government is satisfactory on the point that there is at present no such distress as need cause anxiety to the public, although in limited areas some temporary assistance may be necessary. It is only reasonable that such assistance should be afforded by the zamindars to their raiyats. But where the zamindars hold back and relief from public funds is necessary, the District Boards and local officers are in possession of the means necessary to meet any emergency that may arise.

ORDER.—Ordered that the foregoing Resolution be published for general information.

Ordered, also, that a copy of the Resolution be submitted to the Government of India for information, and copies be forwarded to the Commissioners of Patna, Chittagong, and Dacca for information and guidance.

By order of the Lieutenant-Governor of Bengal,

M. FINUCANE,

*Offg. Secretary to the Govt. of Bengal.*



## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 23rd September, 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL.			
BURDWAN DIV.	1 Burdwan Sept. 23, '93	1.04	Rain throughout the week. State and prospects of crops excellent. Prices of common rice :—
	Kalna ...	0.64	
	Katwa ...	1.03	
	Raniganj ...	0.24	
			Srs.
	Burdwan ...	...	10 to 13
	Kalna ...	...	9½ to 13
	Katwa ...	...	12½
	Raniganj ...	...	11½
			per rupee.
	2 Bankura „ 23, '93	1.44	Weather—overcast and rainy. Prospects continue good. <i>Aus</i> paddy being harvested with good outturn. Common rice selling at 11 seers 14 chitaks per rupee at Bankura and 12 seers at Vishnupur.
3 Birbhum „ 23, '93	2.68	Weather—incessantly rainy with high wind. About 2 inches of rain fell in 36 hours. The paddy crops, both early and <i>aman</i> , are doing well. Early paddies are beginning to be in ear. Price of common rice 12 to 14 seers per rupee.	
Rampur Hat ...	0.41		
4 Midnapore „ 23, '93	1.29	Weather—fair, and at times cloudy. Transplantation still continues. Prospects hopeful. The late heavy rain has caused some damage to the standing crops. No want of fodder. Cattle-disease in Contai and Khedgeri. Prices of common rice :—	
		Srs.	
		12	
		12	
		11	
		11	
		per rupee.	
5 Hooghly „ 23, '93	0.84	Weather—cloudy; hot but latter part cool; rain on almost all days of the week with sunshine at intervals. <i>Aus</i> almost harvested. Jute being steeped. State of <i>aman</i> good. Sugarcane and other crops doing well. Prices of common rice :—	
Serampore ...	0.23		
Jahanabad ...	1.36		
		Srs.	
		11	
		10 to 11½	
		11 to 12½	
		per rupee.	
6 Howrah „ 23, '93	1.81	Weather—seasonable. In Ulubaria the harvesting of early rice continues. In parts of that subdivision floods have prevented transplantation of <i>aman</i> ; otherwise it is doing well. Price of rice 9½ to 10 seers per rupee. Water sufficient. Fodder short in parts of the district.	
Ulubaria ...	0.11		
7 24 Parganas „ 23, '93	1.43	Weather—rainy and hot for the time of the year. Harvesting of <i>aus</i> and jute and transplantation of <i>aman</i> nearly over. Prospects of crops fair on the whole, but poor in the thana of Bankipore. Prices of common rice :—	
		Srs. c.	
		10 to 10 12	
		9 8	
		10 8	
		9 13½	
		per rupee.	
8 Nadia „ 23, '93	2.24	Weather—hot and cool with occasional showers. Prospects of <i>aman</i> rice and other crops fair except in the Kushtia subdivision. Lands being prepared for winter crops. Health of cattle good. Prices stationary. Supply of fodder sufficient.	
Kushtia ...	0.45		
Meherpur ...	1.07		
Chuadanga ...	1.66		
Ranaghat ...	0.63		
9 Khulna „ 23, '93	2.64	Weather—hot with heavy showers. Harvesting of <i>aus</i> and transplantation of <i>aman</i> continue. Ordinary rice sells at 9 to 10 seers per rupee. Water and fodder sufficient.	
Bagerhat ...	0.37		
Satkhira ...	Nil		
10 Jessore „ 23, '93	0.85	Weather—seasonable at the beginning of the week, but windy and rainy at its close. Harvesting of <i>aus</i> and jute nearly finished. Prospects of <i>aman</i> fair. Rivers rising. Fodder and water for cattle sufficient. Prices stationary.	
Jhenida ...	0.07		
Magura ...	1.20		
Narail ...	0.69		
Bangson ...	1.80		
11 Murshidabad „ 23, '93	1.88	Weather—hot with occasional showers. <i>Aman</i> plants thriving well. Cutting of jute and mulberry almost finished. State of sugarcane not so good as expected. Fodder and water sufficient for cattle. Common rice sells at 11½ seers per rupee.	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL—consolid.</b>			
CHITTAGONG DIVN.	12 Chittagong Sept. 23, '93	2.68	Weather—seasonable. Transplantation of <i>aman</i> still continues. Prospects fair in Sadar: good in Cox's bazar. Prices stationary. Condition of cattle generally good. Supply of fodder sufficient.
	13 Noakhali „ 23, '93	1.27	Weather—seasonable. State of standing crops very fair and prospects hopeful. Condition of cattle fair, but fodder insufficient. Prices stationary.
	14 Tippera „ 23, '93	4.1	Weather—cloudy with strong wind. The gradual subsidence of water is brightening the prospect of the existing <i>aman</i> crop. At present it is doing fairly. Fodder is not yet sufficient, but death of cattle is decreasing. Price of rice same as last week.
	15 Chittagong Hill Tracts. „ 21, '93	4.58	Weather—fair with occasional showers. Harvesting of <i>jum</i> and <i>aus</i> paddy still going on. Condition of cattle good. Price of common rice 8 seers 14 chitaks per rupee.
Dacca DIVN.	16 Dacca „ 23, '93	1.76	Weather—hot with occasional rain. Harvesting of jute still going on. <i>Shail</i> paddy being sown. Prospects of <i>aman</i> paddy fair, but it is being damaged by a kind of insect in some places in the Munshiganj subdivision. Water subsiding. Common rice selling from 7 to 9 seers per rupee. Fodder available with difficulty. No cattle-disease.
	17 Faridpur „ 23, '93	1.91	Weather—unsettled; at present wet and boisterous. Condition of crops unchanged. Rivers falling. Common rice sells at 8½ to 9 seers per rupee. Fodder-supply inadequate in some places. Some cattle-disease in Palong thana.
	Goalundo „ ...	0.27	
	Madaripur „ ...	0.32	
	18 Backergunge „ 23, '93	1.97	Weather—fair in the first part of the week; cyclonic in the latter part. State and prospects of crops fair except in Gaurnadi, Mendiganj, and Barupkati, where they have been damaged by flood. Common rice selling at 8 to 9 seers per rupee. Fodder and water sufficient.
	Pirojpur „ ...	3.93	
	Patuakhali „ ...	1.10	
	19 Mymensingh „ 23, '93	2.25	Weather—seasonable. State and prospects of crops fair. The river has gone down to its usual level in this season of the year. Common rice selling at 8 to 9 seers per rupee. Condition of cattle good except in some places in the Netrakona subdivision. Fodder sufficient except in Kishorganj and Netrakona.
RAJSHAHI DIVN.	20 Dinajpur „ 23, '93	1.34	Weather—cloudy and rainy. Prospects of standing crops continue to be good. Condition of cattle good. Fodder and drinking water plentiful. Price of <i>haimanti</i> rice at Sadar unchanged; that of <i>bhadoi</i> rice 12 to 12½ seers per rupee.
	21 Rajshahi „ 23, '93	Not reported.	Weather—seasonable: wet interspersed with sunshine. Prospects good. A long break in the wet weather we are having now, is desirable. Fodder and water-supply ample. No cattle-disease. Price of rice varies from 9 to 12 seers per rupee.
	22 Rangpur „ 23, '93	2.35	Weather—showery. The rain will be beneficial to the newly-planted rice. Transplantation of <i>aman</i> almost finished. Jute harvest goes on. Price of rice slightly higher.
	Gaibanda „ ...	2.00	
	Kuriganon „ ...	1.66	
	Nilphamari „ ...	1.18	
	23 Bogra „ 23, '93	0.88	Weather—unsettled and stormy. Transplantation of <i>aman</i> is finished. Prospects good. Common rice sells at 10 seers per rupee. Fodder and water sufficient.
	Sherpur „ ...	0.61	
	Naukhila „ ...	1.02	
	24 Pabna „ 23, '93	1.74	Weather—rainy and cyclonic during the last two days. Harvesting of jute still continues. Prospects of standing crops fair. Common rice sells at Sirajganj at Rs. 4-14 to Rs. 5 per maund and 9½ seers per rupee at Pabna. Fodder and water-supply sufficient.
	25 Darjeeling „ 23, '93	4.48	Weather—seasonable. In the hills:— <i>Bhutta</i> , <i>chota marua</i> and <i>bhadoi</i> rice being harvested. <i>Aghani</i> rice, <i>bars marua</i> and <i>kalai</i> progressing favourably. <i>Phaphur</i> being planted. In the Terai:—Harvesting of jute nearly completed. <i>Bhadoi</i> being harvested. <i>Haimanti</i> rice doing well. Prices of coarse rice:—
	Siliguri „ ...	4.69	
			Srs. Hills ... .. 9 } per rupee. Terai ... .. 10 }
	26 Jalpaiguri „ 23, '93	1.69	Weather—seasonable. Transplantation of <i>haimanti</i> paddy is completed. The recent rain has done much good to this crop. Washing of jute continues. Price of common rice stationary. Fodder and water-supply sufficient.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR.</b>			
BHAGALPUR DIV.	27 Menghyr Begusarai Jamui Sept. 23, '93 ... ..	7.89 2.08 0.88	Weather—hot and cloudy with occasional showers. <i>Marus</i> harvesting continues. Prospects of standing crops hopeful save those on flooded parts. Winter rice, <i>kurti</i> and sugarcane thriving well. Good outturn is expected of <i>sathi</i> paddy. Cattle-disease at Nawadih and Sheikpura. Sufficient fodder and water. Prices of common rice :—  Sadar ... .. 10½ to 15 } Begusarai ... .. 13 } per rupee. Jamui ... .. 12 }
	28 Bhagalpur Madhipura Supaul .. 23, '93 ... ..	1.75 6.18 3.91	Sowings of <i>kurti</i> , <i>kalai</i> , castor and indigo are being made. There has been a good <i>bhadoi</i> crop, and the prospects of winter rice continue favourable. Price of common rice 13 seers 14 chitaks per rupee.
	29 Purnea Kishanganj Araria .. 23, '93 ... ..	1.10 5.40 4.88	Weather—cloudy with occasional showers; cool. <i>Bhadoi</i> harvest almost over. Prospects of <i>aghani</i> excellent. Fodder and water plentiful. Prices easier.
	30 Malda .. 23, '93	1.56	Weather—cloudy and rainy with high east wind. Prospect of winter rice continues favourable. Sowing of <i>kalai</i> has been retarded on account of rising of the river. Steeping and extracting of jute not yet finished. Price of common rice varies from 11 to 17 seers per rupee. Fodder and water ample.
	31 Bonthal Parganas Deoghur Godda Jamtara Pakur Rajmahal .. 23, '93 ... ..	1.84 0.57 2.29 0.36 1.56 0.27	Weather—sunshine and rain alternately. Standing crops doing well and prospects continue favourable. Fodder and water-supply ample. Cattle-disease reported from the Godda subdivision. Price of rice steady.
	32 Patna Bihar Dinapore .. 23, '93 ... ..	0.80 1.85 2.94	Weather—cool for the season and cloudy. Prospects of winter rice excellent, the rain being sufficient. The high <i>bhadoi</i> lands are being rapidly prepared for the early spring crops. Potatoes being sown. Prices of common rice :—  Sadar ... .. 15 } Bihar ... .. 15 } per rupee. Dinapore ... .. 13 }
	33 Gaya Aurangabad Jahanabad Nawada .. 23, '93 ... ..	0.88 1.94 1.02 0.42	Weather—unsettled; getting cooler. Prospects of paddy crop very favourable. Weeding going on. New maize and millet coming into market. Price of rice 12 seers per rupee at Gaya and Jahanabad, 14 seers at Aurangabad, and 15 seers at Nawada. Supply of fodder and water ample.
	34 Shahabad Buxar Bhabhua Sasaram .. 23, '93 ... ..	1.38 3.23 4.74 0.48	Weather—unsettled with cloudy skies and frequent showers. The weather is all that could be desired from an agricultural point of view. The young paddy is thriving. Sugarcane has improved. The coarse crops which form the <i>bhadoi</i> harvest are being got in. In the south, where they are important, produce is very poor.
	35 Darbhanga Madhubani Samastipur .. 23, '93 ... ..	2.51 1.22 3.75	Weather—cloudy with high east wind. Harvesting of <i>bhadoi</i> nearly completed. Retransplanting of rice still going on. The rainfall of the week has done immense good to the crop. More rain is, however, wanted in the Madhubani subdivision. Fodder for cattle sufficient. Prices have slightly fallen.
	36 Musaffarpur Hajipur Sitamarhi .. 23, '93 ... ..	0.65 1.89 2.08	Weather—hot; cloudy. Retransplantation of paddy still going on in the Sitamarhi subdivision. Harvesting of <i>bhadoi</i> crops still going on. More rain wanted for <i>aghani</i> . No cattle-disease except a few cases of <i>dakha</i> and small-pox in Majorganj, Mahnar, and Mahna. Fodder and water sufficient.
<b>SIAM DIVISION.</b>			

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR—conold.</b>			
PATNA DIVISION—conold.	37 Saran Sept. 23, '93	3.15	Weather—changeable in part of the week. Cloudy and drizzling with strong east wind to-day (23rd). Heavy rain at head-quarters on 20th. Paddy crops generally improved. In tracts where flood water has reached, best outlook assured. In parts of Sadar and Siwan more rain wanted in less favoured tracts. In Gopalganj paddy doing well. Fodder and water abundant. Prices showing a tendency to fall. Prices of common rice:— Srs. c. Sadar ... .. 14 8 } per rupee. Siwan ... .. 14 12 }
	Siwan ...	1.35	
	Gopalganj ...	1.61	
	38 Champaran „ 23, '93	5.16	Weather—unsettled and cooler. <i>Bhadoi</i> rice and <i>kodo</i> are being reaped. Prospects of <i>aghani</i> rice very good. Prices stationary. Fodder and water sufficient.
<b>ORISSA.</b>			
ORISSA DIV.	39 Cuttack „ 23, '93	2.75	Weather—cloudy with heavy showers occasionally. <i>Early biali</i> being gathered. <i>Bara biali</i> ripening. Transplantation of <i>sarad</i> still in progress. Fodder-supply sufficient. Prices of common rice:— Srs. c. Srs. c. Sadar ... .. 10 8 to 13 2 } per rupee. Jajpur ... .. 14 7 to 17 6 Kendrapara ... .. 14 7 to 22 0 Banki ... .. 15 1 }
	40 Puri „ 21, '93	0.74	Weather—cloudy with occasional showers. <i>Biali</i> being reaped. <i>Sarad</i> being weeded. Some damage to <i>sarad</i> paddy from a disease locally known as <i>kahalia</i> and <i>puka chhinda</i> and believed to be induced by excessive rainfall, is reported from Banpur and Khurda. General prospects good. Prices of common rice:— Srs. c. Srs. c. Sadar ... .. 12 8 to 14 1 } per rupee. Khorda ... .. 11 0 to 15 12 }
	Khurda ...	2.87	
	41 Balasore „ 23, '93	4.06	Weather—stormy; cyclonic depression and heavy showers in the latter part of the week. Crops are still reported good and fair at Balasore and Bhadrak respectively. The heavy rain has brought on insects and weeds, and damaged two annas in a small area, and floods have also done local damage in the south. The present stormy weather, if it continues, will cause damages. Prices stationary.
<b>CHOTA NAGPUR.</b>			
<i>South-West Frontier Agency.</i>			
CHOTA NAGPUR DIV.	42 Hazaribagh Sept. 23, '93	4.85	Weather—very wet and stormy. Sugarcane and rice crops are doing well, and miscellaneous rainy-season crops are yielding fairly. Indian-corn almost a complete failure. Sowings of oil-seeds continue. Fodder and water abundant. Prices stationary.
	43 Lohardaga „ 23, '93	0.75	Weather—cloudy and rainy. Reaping of <i>gora</i> paddy continues. Prospect of winter rice continues good. Common rice selling at 15 seers per rupee. Fodder and water plentiful.
	44 Palamau ...	...	Report not received.
	45 Singhbhum „ 23, '93	1.45	Weather—seasonable. <i>Bhadoi</i> crops have been harvested with good results. Winter rice crop very good everywhere. Price of rice about 12 seers per rupee. Some cases of cattle-disease reported from the Chakardharpur thana.
	46 Manbhum „ 23, '93	1.08	Weather—stormy and rainy. We are having too much rain, and winter crops are being damaged somewhat. Prices stationary.
	Gobindpur ...	1.05	

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 26th September, 1893.M. FINUCANE,  
Offg. Secy. to the Govt. of Bengal.

Results of the Meteorological Observations taken at the Alipore Observatory from  
17th to 23rd September 1893.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Miles recorded.	Rain.	WEATHER.	
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.					
Sept.	17th	151.5	7.4	29.764	82.2	88.5	11.5	77.0	79.2	0.956	77.9	87	S and SSE	...	50	Nil	Partially cloudy, o, d.	
"	18th	148.5	5.0	.738	81.8	86.2	9.0	77.2	79.0	.956	77.9	88	SSE and SE	...	69	0.06	Partially cloudy, o, d.	
"	19th	150.2	9.5	.707	82.4	87.7	10.8	76.9	78.6	.930	77.0	84	SE and E	...	56	Nil	Partially cloudy, d.	
"	20th	151.1	6.1	.652	82.2	88.5	10.8	77.7	79.1	.954	77.8	87	SE, ENE and SE by S.	...	45	0.27	Partially cloudy, o, g, p, t.	
"	21st	150.3	3.9	.617	81.2	87.6	10.1	77.5	78.9	.957	77.9	90	SE by S, ENE and NE by N.	...	44	0.17	Chiefly cloudy, o, g, p, t.	
"	22nd	111.8	Nil	.615	78.9	81.3	5.0	75.4	76.6	.886	75.6	90	ENE and ESE	...	184	0.69	Cloudy, o, g, d, p, t.	
"	23rd	119.0	"	.621	78.6	82.6	6.4	76.2	76.7	.894	75.8	91	E, ESE and SE	...	247	0.49	Cloudy, o, g, d, p.	

The mean pressure of the seven days	...	...	...	Inches.	29.673
The average pressure of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	29.690
The total number of hours of bright sunshine	...	...	...	Hours.	31.9
The maximum possible number of hours of sunshine	...	...	...	...	85.0
The mean temperature of the seven days	...	...	...	...	81.0
The average temperature of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	83.0
The extreme variation of temperature	...	...	...	...	13.1
The maximum temperature	...	...	...	...	88.5
The highest velocity of the wind in one hour	...	...	...	Miles.	17
The highest pressure of wind on one square foot	...	...	...	lbs.	?
The mean relative humidity	...	...	...	%	88
The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	86
The total fall of rain from 17th to 23rd September 1893	...	...	...	Inches.	1.68
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	2.69
The total fall from 1st January to 23rd September 1893	...	...	...	...	77.64
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	57.06

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86. formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o, overcast; g, gloomy; d, drizzling rain; p, passing temporary showers; t, thunder; Δ, dew.

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	STATION OBSERVATIONS.													
	DISTRICT.	Representative station.	AIR PRESSURE.			WIND.		TEMPERATURE.						
			Mean barometric height, S. A. M. reduced to 32°.	Mean reduced to sea-level and constant gravity, lat. 45°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.
ORISSA.	Puri	Puri	29.652	29.608	—	Calm & N.	210	89.7	17th Sept.	69.6	23rd Sept.	86.6	76.2	81.4
		Gopalpore	29.671	29.632	—0.034	N	100	89.2	17th	75.3	21st	87.3	76.3	81.8
		False Point	29.652	29.615	—0.02	SEly	231	87.4	17—21	75.6	19, 21 & 22	86.5	76.5*	81.0*
	Cuttack	Cuttack	29.561	29.592	—0.06	Calm	71	90.2	17 & 20	73.8	23rd	88.5	77.1	82.6
	Balasore	Balasore	29.642	29.645	—0.00	NE	66	88.4	17, 18, 21	75.7	19—21 & 23	86.1	76.1	81.1
SOUTH WEST BENGAL.	Midnapore	Midnapore	29.592	29.687	—0.02	NEly	64	90.3	17 & 20 to 22	76.1	18 & 23	80.4	77.1	83.1
	24-Pargannas	Calcutta	29.724	29.691	+0.005	SE	72	88.6	18 & 21	75.2	23rd	86.8	77.0	81.0
		Saugor Island	29.698	29.668	—0.011	ENE	230	90.2	17th	76.0	21 & 23	87.9	76.9	82.4
	Howrah	Howrah	29.707	29.703	+0.020	Variable	89	90.3	21st	76.2	19 & 21	89.5	77.2	82.9
	Khulna	Jessore	29.727	29.707	—0.008	SE	92	90.5	18 & 21	75.9	22nd	88.6	77.8	83.2
NORTH BENGAL.	Burdwan	Burdwan	29.668	29.714	+0.020	E	84	90.1	21st	77.2	23rd	88.0	78.0	83.0
		Raniganj	29.423	29.708	+0.25	NEly	45	93.2	21st	75.0	19 & 23	91.1	77.1	84.1
	Bankura	Bankura	29.424	29.673	+0.061	Variable	50	89.6	21st	74.0	23rd	87.7	76.4	82.1
	Murshidabad	Berhampore	29.696	29.712	+0.012	Ely	34	90.1	22nd	75.8	23rd	88.1	78.0	83.1
	Pabna	Shingrai	29.725	29.731	+0.017	Calm & NE.	?	90.1	22nd	74.7	22 & 23	87.5	76.6	82.0
EAST BENGAL.	Bogra	Bogra	29.725	29.739	+0.061	SE	52	90.7	22nd	73.2	17 & 22	87.2	75.1	81.1
	Rajshahi	Rampur Bazar	29.638	29.712	+0.025	SE	78	90.1	22nd	77.1	20th	87.4	76.0	81.7
	Malda	Malda	29.638	29.720	—	SE	73	91.1	20th	76.0	20 & 23	88.0	76.8	82.4
	Dinajpur	Dinajpur	29.631	29.738	+0.036	E	50	91.6	22nd	75.7	23rd	87.6	77.1	82.3
	Rangpur	Rangpur	29.638	29.745	0	Ely	36	91.8	22nd	74.2	22nd	87.9	75.9	81.9
NORTH BENGAL.	Jalpaiguri	Jalpaiguri	29.525	29.704	+0.024	Variable	55	91.4	22nd	73.6	23rd	87.0	75.0	81.3
	Kuch Bihar	Kuch Bihar	29.525	29.704	+0.024	Variable	55	91.4	22nd	73.6	23rd	87.0	75.0	81.3
	Darjeeling	Darjeeling	22.911	—	—0.021	NEly	74	63.6	21 & 23	52.6	20, 21 & 23	62.3	53.5	57.9
	Sikkim	Gnatong	29.711	29.740	+0.065	SEly	80	83.4	22nd	75.1	21st	85.5	76.3	80.9
	Chittagong	Chittagong	29.711	29.740	+0.065	NE	86	88.2	20th	74.1	7 & 22	86.6	75.2	80.9
EAST BENGAL.	Chittagong Hill Tracts	Dumagiri	29.741	29.699	—0.045	Calm	60	89.3	17, 18 & 21	75.9	23rd	88.0	77.8	82.9
	Backergunge	Barisal	29.741	29.699	—0.045	Calm	60	89.3	17, 18 & 21	75.9	23rd	88.0	77.8	82.9
	Noakhali	Noakhali	29.741	29.719	+0.02	E	108	88.5	21st	75.8	18, 22 & 23	86.4	77.0	81.7
	Faridpur	Faridpur	29.736	29.736	+0.000	E	47	86.5	17, 19, 21 & 23	76.4	18th	86.2	78.0	82.1
	Dacca	Dacca	29.745	29.716	+0.029	Ely	86	89.1	20—22	75.2	18th	88.4	77.4	82.9
NORTH BENGAL.	Tippura	Comilla	29.747	29.731	+0.016	Ely	91.3	91.3	22nd	74.8	21st	88.6	75.9	82.3
	Mymensingh	Mymensingh	29.721	29.731	+0.008	NE	71	89.7	22nd	73.6	22nd	87.3	75.9	81.7
	Purnea	Purnea	29.653	29.732	+0.079	Calm	14	92.2	22nd	74.2	17 & 18	80.9	76.0	81.8
	Rhagapur	Buxarpur	29.595	29.700	+0.025	Calm	24	90.2	22nd	74.0	18 & 22	87.6	75.9	81.7
	Darbhanga	Darbhanga	29.605	29.725	+0.023	ENE	55	91.0	22nd	75.2	18th	85.8	77.0	81.4
NORTH BENGAL.	Muzaffarpur	Muzaffarpur	29.585	29.728	—	ENE	86	89.2	17th	75.2	18 & 20	86.4	76.4	81.5
	Champaran	Motihari	29.535	29.717	+0.039	ENE	66	90.2	20, 21 & 23	71.8	20th	86.8	75.0	80.9
	Saran	Chhapra	29.584	29.719	+0.059	NNE	67	90.3	17 & 23	74.0	21st	87.0	76.5	81.8
	Supaul	Supaul	29.402	29.707	+0.017	Calm	78	88.1	22nd	75.0	23rd	86.6	76.4	81.5
	Sushabad	Buxar	29.617	29.711	+0.022	Ely	61	89.0	17th	74.3	23rd	87.0	75.7	81.4
SOUTH BENGAL.	Gaya	Arrah	29.590	29.702	+0.031	Variable	58	90.9	17 & 23	73.6	21st	88.1	76.0	82.5
		Gaya	29.380	29.710	+0.022	ESE	124	91.9	22nd	76.3	18 & 23	89.0	77.3	83.3
	Patna	Bankipore	29.576	29.711	+0.015	E	96	89.5	20th	75.7	23rd	86.5	77.5	82.0
	Monghyt	Monghyt	29.576	29.711	+0.015	E	96	89.5	20th	75.7	23rd	86.5	77.5	82.0
	Sonthal Pargannas	Naya Dumka	29.261	29.707	+0.045	Variable	?	87.6	21st	74.8	19th	86.5	76.9	81.2
BOGA NAGPUR.	Hazaribagh	Hazaribagh	27.745	29.760	+0.011	Variable	131	85.2	21st	69.8	19 & 23	82.7	70.7	76.7
	Lohardaga	Ranchi	27.616	29.684	—0.063	Variable	148	84.0	21st	69.4	19th	82.1	70.5	76.3
	Palamou	Daltonganj	27.616	29.684	—0.063	Variable	148	84.0	21st	69.4	19th	82.1	70.5	76.3
	Singhbhum	Chaibasa	25.951	29.659	—0.010	Variable	26	89.9	17th	73.7	23rd	88.5	75.2	82.0
	Manbhum	Manbhum	25.951	29.659	—0.010	Variable	26	89.9	17th	73.7	23rd	88.5	75.2	82.0
ASSAM.	Sibsagar	Sibsagar	29.621	29.811	+0.053	Variable	?	90.1	22nd	72.5	18th	87.7	75.9	81.8
	Goonipara	Dhubri	29.083	29.754	—0.066	ENE	122	91.2	22nd	73.8	22nd	86.6	75.9	81.3
	Cachar	Silchar	29.702	29.757	+0.014	Calm	?	95.6	21st	75.3	17 to 19 & 23	91.6	76.1	83.9

\* Mean of 6 days.

**Remarks.**—Summary.—The normal means of air pressure and temperature are the arithmetical average or means of the reading during the same period. The humidity of the atmosphere is expressed at percentage, saturated air being presented by 100. A clear sky is denoted by 0 and an overcast sky by 01. The normal mean are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional stations district, i.e. from total rainfall at the subdivisional stations in the district reading in returns divided by the number of stations. A rainy day is one of

for the week ending Saturday, the 23rd of September 1893.

DISTRICT OBSERVATIONS.															DISTRICT.
Variation from normal mean.	Mean 2 A.M., temperature.	Average humidity at 8 A.M.	Average cloud amount at 8 A.M.	Rainfall of week at observing station.	OF WEEK				RAINFALL.						
					Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Since 1st of month.			Since 16th May 1893.			
									Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.	
—	80.0	80	8.1	5.77		2.18		3.45		8.00				42.22	Puri.
—1.0	79.0	90	3.9	1.25											
—1.4	82.2	80	7.6	0.00											
—0.9	81.1	82	7.0	3.04		2.74		3.10		7.80				42.64	
—1.2	80.9	103	5.3	4.20		2.80		3.13		8.61				43.79	Outlaok.
+0.1	81.1	88	5.4	1.57	1.99	1.02	2.75	2.42	13.01	7.18	+5.93	68.42	45.64	+17.76	Balasore.
—1.0	81.1	87	7.6	1.43	1.46	1.99	2.43	2.06	9.45	7.88	+1.57	58.81	40.88	+11.93	Midnapore.
—1.5	80.5	93	9.3	3.03											24-Parganna.
					1.66	1.95	4.00	2.71	12.05	7.20	+4.85	59.65	44.91	+14.74	
						2.01		2.41		6.78			44.43		
—0.1	81.5	86	7.9	2.24	2.04	1.02	3.00	2.09	6.44	6.73	—0.29	62.02	41.93	+10.09	
—1.0	82.6	88	7.0	0.85		2.05	1.84	3.00	2.40	9.14	7.69	+1.45	65.50	48.76	+16.74
—1.4	81.0	86	8.4	1.04	1.25	1.45	2.60	2.29	6.61	6.04			43.33		Khulna.
+0.0	80.0	90	2.7	0.42											Jessore.
—0.4	80.2	90	5.3	1.44	1.22	1.84	2.60	2.73	9.07	7.03	+2.04	57.01	46.30	+10.81	Burdwan.
—0.9	80.1	94	8.1	1.88	1.10	1.97	3.00	2.69	8.85	8.30	+0.55	48.30	46.17	+2.22	Bankura.
—1.2	80.0	91	7.9	1.97	1.86	1.85	2.66	2.18	5.90	8.27	—2.38	64.76	45.30	+19.46	Hirbham.
—1.4	81.0	89	5.1	2.48	3.36	1.72	4.00	2.60	5.90	7.48	—1.58	54.80	48.06	+6.74	Murshidabad.
—1.2	82.0	88	4.0	2.56	2.60	2.44	3.33	2.32	6.75	9.11	—2.36	58.21	40.09	+12.13	Pabna.
—	80.1	91	6.4	1.66		1.66		2.10		9.13			47.06		Bogra.
—1.3	81.1	87	6.9	1.10	2.08	1.96	3.40	2.47	6.05	9.42	—2.47	57.56	50.03	+7.53	Rajshahi.
—1.2	80.1	90	5.0	2.35	1.65	2.21	3.25	2.51	5.54	10.02	—4.48	68.82	64.44	+4.38	Malda.
0	78.6	87	6.7	2.16	1.09	6.11	2.00	3.50	12.30	19.64	—7.34	103.71	106.12	—2.41	Dinajpur.
—1.8	67.6	96	9.4	4.48	5.01	4.02	4.50	3.69	13.74	14.64	—0.90	117.50	111.64	+5.86	Rangpur.
—	45.0	91	7.1	6.46	1.06	4.53	2.50	5.47	6.73	16.41	—0.68	94.60	97.69	—3.09	Jaipalguri.
—0.8	78.8	90	7.0	3.53	2.27	3.00	2.98	8.51	11.56	—3.05	126.80	90.63	+37.17	+2.41	Kuch Bher.
					2.57	2.70	5.00	3.00	11.16	10.02	+1.14	98.44	70.68	+27.76	Darjeeling.
+1.0	81.7	88	8.9	1.87	2.44	2.54	4.25	3.22	9.90	9.30	+0.60	77.13	65.55	+11.58	Onitakong.
—0.1	80.9	91	2.4	1.27	3.01	3.75	5.00	3.44	9.64	14.07	—4.43	107.70	93.33	+14.37	Chittagong Hill
—0.7	81.0	91	6.7	1.91		1.50		2.15		7.11			47.57		Tracts.
—0.0	80.2	91	7.9	2.92	1.29	2.18	2.25	2.57	5.72	8.71	—2.99	50.16	52.71	—2.55	Backergunge.
—0.2	80.8	86	5.6	3.73	3.37	2.53	4.50	3.15	7.83	9.22	—1.39	67.04	59.88	+7.16	Nomkhali.
—1.3	80.2	91	7.3	2.25	2.48	2.30	2.40	2.87	5.35	9.58	—4.23	70.15	59.08	+11.07	Faridpur.
—2.1	79.7	92	5.0	1.10	2.04	1.91	3.40	2.37	8.71	11.31	—2.60	64.65	57.26	+7.39	Dacca.
—1.8	80.9	89	8.6	1.72	4.92	1.22	3.50	2.00	11.98	7.06	+4.92	46.96	31.21	+15.75	Bhagalpur.
—2.7	79.1	80	7.0	2.51	2.71	1.27	3.33	1.63	5.53	7.11	—1.58		39.33		Darbhanga.
—	78.6	92	5.0	0.65	1.85	1.30	2.00	1.65	4.41	6.36	—1.95	37.36	36.28	+1.08	Muzaffarpur.
—2.3	79.6	57	0.3	5.16		1.47		1.56		6.24			37.00		Chauparan.
—1.8	79.3	90	8.6	3.15	2.08	1.57	3.33	2.01	4.69	5.83	—1.14	38.21	35.36	—2.85	Saran.
—1.2	81.0	86	5.7	1.40											Shahabad.
—1.8	79.9	89	7.6	3.34		1.31		2.20		5.92			34.66		
—1.3	80.0	88	6.0	1.38											
—1.7	79.3	90	6.3	0.88	0.76	1.17	2.75	1.73	6.84	5.51	+1.33		36.14		
—3.3	60.2	80	8.9	0.80		1.12		1.75		5.38			35.16		Gaya.
					3.99	1.07	4.00	1.78	8.07	6.29	+1.78	43.78	37.37	+6.41	Patna.
—1.2	80.3	87	4.1	1.84	1.80	2.10	5.17	2.57	7.06	8.47	—1.41	51.85	44.29	+7.56	Mongh.
—2.0	74.3	90	9.0	7.13		1.96		2.98		7.39			44.63		Sonthal Parkana.
—0.9	74.0	89	6.1	0.75	2.20	1.50	3.50	2.80		7.81			45.99		Hazaribagh.
						1.08		1.85		6.38			37.27		Lohardaga.
—0.3	78.8	89	7.9	1.45	1.45	1.29	3.00	2.45	8.77	6.98	+1.79	52.39	46.50	+6.89	Palamau.
—1.3	77.7	96	6.9	0.63	0.97	1.40	3.00	2.50	10.08	6.55	+3.53	61.95	41.24	+20.71	Singbham.
+0.2	78.4	90	0.0	0.11											Manbham.
+0.4	79.6	90	8.1	2.05											Assam.

for the last ten years. The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater. The numbers denoting cloud amount represents the part of the sky covered the whole sky being denoted by 10. Under the head District observations are for the period in question during the past ten years. The means of the district are the numerical average of the rainfall returned received in the which at least a tenth of an inch fell.









**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSER-  
VATIONS TAKEN IN ASSAM, FOR THE WEEK ENDING 8 A.M.,  
SATURDAY, THE 23RD OF SEPTEMBER 1893.**

DURING the early part of the week the pressure distribution was fairly uniform, and comparatively fine calm weather prevailed, though interrupted in places by local storms, which caused showers of varying amounts. On the 17th, the first day of the week, there was excess in pressure of a tenth of an inch at most of the Bengal stations and in the north of the Bay, but in Burmah and Madras readings were more nearly normal. A fall of pressure began over the Bay, and continued during the whole week both over the Bay and the province, except at the eastern stations towards the end. The result of this steady fall was a depression, which formed in the north of the Bay, and after remaining shallow for some days, developed very rapidly as it approached the Orissa coast, and proved to be a disturbance of considerable severity, when it crossed the coast near Puri on Saturday, the last day of the week.

The first signs of the commencing depression were observable in the northerly winds at the Orissa stations, and the faint indraught across the east coast of the Bay on Monday, the 18th. Excepting the continued slow fall of pressure, and the more regular cyclonic circulation, there was very little change till the 20th, when the depression was better defined, but even then it was so diffused that its exact position, though nearer the west coast, was still doubtful. Gradients became steeper in the south-east of the Bay and winds strengthened, but velocity was never above 20 miles an hour at Diamond Island. The depression continued to drift slowly westward on the 21st, and on the 22nd it was near the South Orissa coast. Pressure fell more rapidly at the Orissa stations, and as it was then rising moderately in the east of the Bay and briskly in North Bengal and Assam, the disturbance was concentrating. Stormy weather rapidly developed, and when the centre of the depression crossed the coast near Puri on the morning of Saturday, gradients were very steep, and very strong winds prevailed over the south of Orissa and the adjacent part of the Bay. After crossing the coast the direction of motion was more northerly, and the track of the centre was never far from the western boundary of the province, till the disturbance broke up amongst the hills a day or two afterwards.

During the last two days of the week rough rainy weather prevailed over the greater part of the province, but especially in Lower Bengal, Orissa, and Chota Nagpur.

*Pressure*—From being a tenth of an inch above the normal at the beginning of the week fell steadily, but slowly, at all stations till the last two days, when the depression received a considerable addition of power from the brisk increase of pressure in North-East Bengal, while it was falling near the centre of disturbance. Changes were above a tenth of an inch only on the last day of the week, while the area of lowest pressure was crossing Orissa, and these larger changes were confined to the Orissa stations, varying from  $\cdot 1$  inch at Bâlasore to  $\cdot 35$  inch at Cuttack. Defect was then half an inch at Cuttack, but gradients being very steep near the centre, the difference from the normal diminished rapidly towards the north, and was less than a tenth of an inch at most of the stations in South-West Bengal and Chota Nagpur. The mean difference from the normal for the week varied from defect of  $0\cdot 76$  inch at Cuttack to excess of  $\cdot 03$  inch over the greater part of Bengal and Bihar.

*Temperature*—Has generally been below the normal, at times by several degrees, and means for the larger divisions are all relatively low. Defect in Assam is very slight, and in Lower Bengal about half a degree, but in the other districts it varies from  $1^{\circ}$  to more than  $2^{\circ}$ .

*Rainfall*—Was scattered and very irregular in amount, being due to local storms, till towards the end of the week, when the disturbance in the north of the Bay caused general cloudy weather with rain over the greater part of the province. In Bengal rather less than the normal amount has fallen, but in Orissa, Chota Nagpur, and Bihar considerably more than the average was received. Excess in South Bihar is  $0\cdot 6$  inch, in Chota Nagpur nearly 1 inch, in North Bihar  $1\cdot 69$  inches, and in Orissa  $1\cdot 89$  inches. The rainfall on the whole has been more evenly distributed than is usually the case, as the falls at the various stations rarely differ much from 2 inches except in Orissa and in the Darjeeling Hills.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 23rd of September 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.								RAINFALL.									
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.		Since 16th May 1893.			
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.		
Orissa	...	...	90.2	62.6	87.0	76.4	81.7	-1.3	4.58	2.69	+1.89	4.00	3.21	+0.79	14.41	8.38	52.30	42.09
South-West Bengal	...	...	93.2	74.6	88.5	77.3	82.9	-0.0	1.02	1.81	-0.19	2.65	2.45	+0.20	8.65	7.31	54.51	44.82
North Bengal	...	...	91.8	73.2	87.6	76.1	81.8	-1.1	2.33	2.56	-0.23	3.28	2.06	+0.62	6.63	10.67	65.91	61.00
East Bengal	...	...	91.3	73.0	87.4	76.7	82.1	-0.5	2.42	2.30	+0.03	3.36	2.93	+0.43	7.31	9.58	75.13	64.69
North Bihar	...	...	92.2	71.8	86.8	76.2	81.5	-2.2	3.12	1.43	+1.69	3.06	1.90	+1.16	7.01	7.38	45.36	41.18
South Bihar	...	...	91.9	73.0	87.3	76.6	82.0	-1.8	2.05	1.45	+0.60	2.01	2.10	+0.81	6.82	6.49	41.57	37.93
Chota Nagpur	...	...	89.9	69.4	84.4	72.1	78.3	-1.0	2.63	1.67	+0.96	2.83	2.72	+0.11	12.38	7.18	55.60	43.64
Assam	...	...	95.6	72.5	88.6	76.0	82.3	-0.2										

\* Daitonganj not included.

METEOROLOGICAL OFFICE, BENGAL,

C. LITTLE,

The 26th September 1893.

Offg. Meteorological Reporter to the Govt. of Bengal.

### Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 17th to 23rd September 1893.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.						HYGROMETRY.				Rainfall, past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.		
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.	
September	17th	29.839	83.4	90.0	13.2	76.8	85.6	80.7	.983	78.7	80	..	
"	18th	.801	81.7	88.5	13.7	74.8	85.6	77.5	.836	73.8	68	..	
"	19th	.769	83.6	90.0	12.9	77.1	84.6	79.5	.940	77.4	79	..	
"	20th	.744	83.9	89.8	11.8	78.0	84.8	79.5	.937	77.2	78	..	
"	21st	.682	83.3	89.0	11.4	77.6	86.0	80.0	.932	77.1	73	0.32	
"	22nd	.646	79.4	81.9	5.1	76.8	81.1	78.0	.920	76.7	87	0.10	
"	23rd	.653	79.4	82.9	7.1	75.8	77.6	76.5	.900	76.0	95	1.36	

The mean 10 A.M. pressure of the seven days ... .. Inches. 29.733

The mean temperature of the seven days ... .. 82.1

The extreme variation of temperature ... .. 15.2

The maximum temperature ... .. 90.0

The mean 10 A.M. relative humidity of the seven days ... .. % 80

The total fall of rain from 17th to 23rd September 1893 ... .. Inch. 1.78

The daily mean temperatures are the crude means of maximum and minimum temperatures.

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA,

The 25th September 1893.

## CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 23rd September 1893,  
as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 23RD SEPTEMBER 1893.			WEEK ENDING SATURDAY, THE 24TH SEPTEMBER 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ... ..	592	1,28,240	1,307	307	81,625	1,355
Jute ... ..	210	85,725	1,568	197	52,375	939
Firewood ... ..	120	74,650	1,160	124	77,100	1,122
Other articles ... ..	778	1,41,913	2,323	977	2,06,755	2,950
Total ... ..	1,700	4,30,528	6,298	1,605	4,17,855	6,366

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

*Approximate Return of Traffic for week ended 16th September 1893, on 1,610½ miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchan- dise.	Total.
Total traffic for the week ...	242,289	Rs. A. P. 2 44,118 8 0	Mds. S. 23 40,877 0	Rs. A. P. 4 77 512 7 0	Rs. A. P. 14 517 6 0	Rs. A. P. 7 35,988 5 0	76,408½	94,097	170,505½
Or per mile of railway ..	.....	151 0 6	.....	296 6 0	0 0 5	456 15 11	.....	.....	.....
For previous 10½ weeks of half-year ... ..	2,905,761	81,08,364 1 0	2,34,45,977 10	48,55,996 14 0	1,41,883 0 0	81,06,140 5 0	775,405	964,100	1,739,505
Total for 11½ weeks ...	3,151,050	83 52 507 0 0	2,46,92,814 10	53,33,309 5 0	1,56,420 12 0	88 42 157 10 0	851,813½	1,048,197	1,900,010½
COMPARISON.									
Total for corresponding week of previous year ...	243,389	2 50,812 2 7	22,14 680 20	5,33,951 8 5	15 233 13 2	7 09,997 8 2	74,469	89,700	164,178
Per mile of railway correspond- ing week of previous year ..	.....	155 11 0	.....	331 8 9	9 7 4	406 11 10	.....	.....	.....
Total for corresponding 11½ weeks of previous year ..	2,874,925	27,27,550 10 11	2 40,88,147 0	54,14 648 0 11	1,78,953 3 8	83,21,151 5 6	833,441	1,023,517	1,856,958

## TARKESSUR BRANCH RAILWAY.

*Approximate Return of Traffic for week ended 16th September 1893, on 22½ miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchan- dise.	Total.
Total traffic for the week ...	14,544	Rs. A. P. 3 490 7 0	Mds. S. 2,507 0	Rs. A. P. 114 13 0	Rs. A. P. 7 0 0	Rs. A. P. 3 493 4 0	889	79	968
Or per mile of railway ..	.....	149 10 11	.....	5 2 7	0 5 0	155 2 0	.....	.....	.....
For previous 10½ weeks of half-year ... ..	*170,955	*41,064 13 0	189,755 0	13,041 15 0	186 0 0	44,792 12 0	9,156	746	9,902
Total for 11½ weeks ...	185,499	44,555 4 0	192,262 0	13,156 12 0	191 0 0	48,245 0 0	10,045	826	10,871
COMPARISON.									
Total for corresponding week of previous year ...	15,452	3 544 4 5	5 830 10	223 6 0	3 4 0	3 780 14 5	904	64	968
Per mile of railway correspond- ing week of previous year ..	.....	159 11 11	.....	10 0 7	0 2 1	169 14 10	.....	.....	.....
Total for corresponding 11½ weeks of previous year ...	207,516	49,713 5 1	68,837 20	2,423 2 0	83 7 0	52,219 14 1	10,363	669	11,032

\* Added number of passengers 449 and Rs. 12½ }  
† Deducted maunds 11 and added " 2 } on account of difference between the approximate and audited figures for the week ended 12th August 1893.  
‡ Ditto " 4 }

## DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for week ended 16th September 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	17,819	12,709 12 0	37,007 0	7,029 14 0	32 0 0	26,371 10 0	6,048	3,131	9,179
Or per mile of railway ...	.....	78 11 11	.....	47 4 5	0 3 2	120 3 6	.....	.....	.....
For previous 10 weeks of half-year ...	*206,378	*1,98,617 1 0	*4,95,435 0	*68,052 0 0	*311 0 0	*2,07,000 10 0	62,327	27,406	89,733
Total for 11½ weeks ...	223,091	1,51,346 13 0	5,33,102 0	75,682 7 0	343 0 0	2,27,372 4 0	68,375	30,537	98,912
COMPARISON.									
Total for corresponding week of previous year ...	12,974	11,261 15 8	35,824 10	7,536 0 0	54 11 8	18,862 10 11	6,354	2,454	8,808
Or per mile of railway corresponding week of previous year ...	.....	69 12 5	.....	46 11 1	0 5 5	116 12 11	.....	.....	.....
Total for corresponding 11½ weeks of previous year ...	193,830½	1,33,677 14 9	4,08,326 20	69,057 13 0	454 0 9	2,03,189 13 0	72,031	27,923	100,454

\* Added number of passengers 856 and deducted Rs. 679

† Deducted mounds 239 and

‡ Ditto

on account of difference between the approximate and audited figures for the week ended 12th August 1893.

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K.-D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for the week ended 16th September 1893, on 778 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	139,179	59,950 0 0	9,54,150 0	2,02,330 0 0	12,030 0 0	2,74,230 0 0	28,000	33,764	61,764
Or per mile of railway ...	179	77 0 0	1,226 0	260 0 0	*1 0 0	*338 0 0	.....	.....	.....
For previous 10 weeks of half-year ...	†1,083,251	7,03,450 0 0	73,04,036 0	14,13,831 0 0	1,62,322 0 0	22,68,115 0 0	287,047	239,519	526,567
Total for 11 weeks ...	1,822,421	7,63,409 0 0	82,58,186 0	16,14,384 0 0	1,64,352 0 0	25,42,345 0 0	315,047	323,274	638,321
COMPARISON.									
Total for corresponding week of previous year ...	141,060	59,855 0 0	9,14,442 0	2,35,270 0 0	14,197 0 0	3,09,392 0 0	26,000	43,230	69,230
Or per mile of railway corresponding period of previous year ...	182	77 0 0	1,177 0	303 0 0	*1 0 0	*331 0 0	.....	.....	.....
Total to corresponding date of previous year ...	1,660,847	6,70,776 0 0	75,45,713 0	17,74,013 0 0	1,70,174 0 0	26,14,963 0 0	300,607	304,638	605,245

\* Excluding steamer earnings.

† Audited up to week ending 29th July 1893.

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for the week ended 16th September 1893, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	27,970	8,110 0 0	61,840 0	4,290 0 0	230 0 0	13,030 0 0	3,929	1,743	5,672
Or per mile of railway ...	224	65 0 0	495 0	34 0 0	2 0 0	101 0 0	...	.....	.....
For previous 10 weeks of half-year*	334,991	1,01,588 0 0	5,38,959 0	44,471 0 0	987 0 0	1,50,016 0 0	36,735	21,048	57,783
Total for 11 weeks ...	362,961	1,12,698 0 0	6,01,799 0	48,761 0 0	1,187 0 0	1,62,046 0 0	40,664	22,791	63,455
COMPARISON.									
Total for corresponding week of previous year ...	27,998	9,111 0 0	74,596 0	7,403 0 0	305 0 0	10,909 0 0	8,933	3,571	6,604
Or per mile of railway corresponding week of previous year ...	224	73 0 0	597 0	60 0 0	2 0 0	135 0 0	.....	.....	.....
Total to corresponding date of previous year ...	332,630	1,01,609 0 0	5,78,535 0	50,192 0 0	1,533 0 0	1,53,344 0 0	41,342	24,369	5,711

\* Audited up to week ending 29th July 1893.

## DACCA STATE RAILWAY.

Approximate Return of Traffic for the week ended 16th September 1893, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	15,130	5,010 0 0	41,450 0	4,880 0 0	130 0 0	9,590 0 0	2,487	787	3,274
Or per mile of railway ...	176	58 0 0	482 0	51 0 0	2 0 0	111 0 0	.....	.....	.....
For previous 10 weeks of half-year ...	*172,023	53,074 0 0	1,72,975 0	11,709 0 0	1,604 0 0	*66,887 0 0	25,800	7,862	33,662
Total for 11 weeks ...	187,153	58,084 0 0	2,14,428 0	16,689 0 0	1,734 0 0	78,007 0 0	27,707	8,649	36,356
COMPARISON.									
Total for corresponding week of previous year ...	15,581	5,010 0 0	26,112 0	2,141 0 0	200 0 0	7,391 0 0	2,487	787	3,274
Per mile of railway corresponding week of previous year ...	181	58 0 0	304 0	26 0 0	2 0 0	86 0 0	.....	.....	.....
Total to corresponding date of previous year ...	181,303	56,596 0 0	1,84,052 0	14,202 0 0	2,174 0 0	72,072 0 0	25,969	7,639	33,608

\* Audited up to week ending 29th July 1893.

\* Audited up to week ending 2nd September 1893.

## BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIRHUT STATE RAILWAY.)

Approximate return of traffic for the week ending 16th September 1893, on 756 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-bort.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs.	Mds.	Rs.	Rs.	Rs.			
Total traffic for the period on 756 miles open ...	85,910	29,130	2,17,170	20,461	7,870	66,490	12,910	15,027	27,937
Or per mile of railway ...	111,110	38 53	287 26	26 57	10 41	87 91	.....	.....	.....
For previous 104 weeks of half-year* ...	905,072	3,42,961	21,50,753	2,90,188	97,736	7,30,215	126,401	156,242	282,643
Total for 114 weeks ...	990,982	3,71,221	23,76,923	3,19,848	1,05,606	7,96,675	141,817	171,869	313,686
COMPARISON.									
Total for corresponding period of previous year on 755 miles open ...	86,914	30,735	2,35,990	31,425	8,287	70,457	14,314	12,708	27,022
Per mile of corresponding week of previous year ...	115 12	40 67	312 49	41 62	10 98	101 27	.....	.....	.....
Total to corresponding date of previous year ...	997,642	3,43,018	24,42,464	3,58,712	98,682	7,91,833	152,531	169,813	322,344

\* Include, audited figures up to 31st August 1893.







# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, OCTOBER 4, 1893.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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## RESOLUTION ON THE ANNUAL GENERAL ADMINISTRATION REPORT OF THE CHITTAGONG DIVISION FOR 1892-93.

GENERAL DEPARTMENT—MISCELLANEOUS No. 657T—G.

*Darjeeling, the 1st October 1893.*

### RESOLUTION.

READ—

The Annual General Administration Report of the Chittagong Division for 1892-93.

This report is submitted by Mr. Oldham, who was in charge of the Division throughout the year, except for two months, from 10th October 1892, when he took privilege leave and Mr. Greer officiated for him.

2. The orders of the Government respecting tours seem to have been properly carried out by the Commissioner and District and Subdivisional Officers; and the diaries

Tours and Inspections. submitted showed that full attention had been paid to all subjects of outdoor

inspection. In Chittagong Mr. Slack made a special tour for the purpose of removing the hindrances which had arisen to the making over of the land required for the Assam-Bengal State Railway, and was successful in his object. In Tippera Mr. Greer's tact overcame the opposition of the people to the survey of the Maharaja of Hill Tippera's estate. The useful character of the inspections made by Mr. Manson, in charge of Cox's Bazar, has been especially brought to notice in connexion with the tours of Sub-divisional Officers. Half-yearly inspections of the offices at head-quarters were duly made by all Collectors.

3. The rainfall is reported to have been sufficient and well distributed.

Weather and Crops.

The fall at Chandpur and Mirserai in Chittagong was deficient, being only 62" and 59" respectively, compared with an average of 96" for the whole district. Fine crops of rice and jute, the staple products of the Division, were reaped. The winter crops, however, in Chittagong and Noakhali were poor.

The Commissioner notices two interesting facts in regard to Tippera. It is said that in that district the jute crop is now considered the most important crop of the year, coming even before rice, and that in the north of the district the cultivation of hemp is spreading, and is considered very profitable.

4. The year was an unhealthy one in Noakhali and the northern half of Chittagong, where an epidemic of cholera raged from May to September.

Public health.

The following figures show the total reported mortality in each District for the last three years:—

	Population by census of 1891.	1892-93.	1891-92.	1890-91.
Chittagong ...	1,290,167	37,211	30,279	28,072
Noakhali ...	1,009,693	29,505	25,851	26,685
Tippera ...	1,782,935	32,944	33,103	36,558
Total ...	4,082,795	99,660	89,233	91,315

It will be observed that the total number of deaths reported increased considerably in Chittagong and Noakhali, while in Tippera there was a slight decrease. It is difficult to speak with any certainty of the death-rate in this or other divisions of these provinces, the registration of mortality being still defective. It is true that the public health was better in Tippera than elsewhere, but the figures for that district show a death-rate of only 18·4 per mille against 21 and 29 per mille in Chittagong and Noakhali, indicating that registration there is still very imperfect.

5. Good crops and brisk trade maintained the people of the Division in the usual condition of prosperity, which characterises the eastern districts of Bengal.

It is only in Noakhali, which is the poorest district of the division, that the offer of 5 and 6 annas a day attracts any local supply of day labourers. Elsewhere work at this rate is left to be performed by outsiders, who come annually from great distances to secure higher wages than they can obtain near their homes in Bihar and Oudh. The Commissioner remarks that, with the work on the Assam-Chittagong Railway in progress, this immigration must increase, as last year local labour failed in Tippera and Chittagong. The prices of food-grains were slightly higher than in the previous year, owing to exportations to meet scarcity in other parts of India, but the wages of labour rose in general on a corresponding scale. The division is practically secure against famine or even general scarcity. Floods can only cause partial and temporary distress in particular localities, and even in such cases the people are able to obtain credit or to fall back on reserves of former years.

6. The bulk of the trade is water-borne, and centres at the ports of Naraianganj and Chittagong. Figures for the latter port show a decline both in exports and

Manufactures, Trade and Commerce.

imports, but this decline is due to causes in no way affecting the prosperity of the Division as a whole. The exports of rice decreased because the Deltaic Districts, which generally send their rice to Chittagong, whence it is again exported, were able last year to secure good prices in markets nearer home, and their consignments to Chittagong were therefore diminished. Again, the decrease in the value of jute imported into and exported from Chittagong is due, as the Commissioner observes, to the fact that the raiyats, in view of the large profits made by middlemen in 1890 and 1891, held up their jute to an unprecedented extent, in the hope of obtaining similar profits in the year under review. Tea is a local product in Chittagong, and a poor crop accounts for the decrease in the amount exported. There was an increase in the exports of cotton, much of which, however, was the remnant of the previous year's crop—an exceptionally good one.

In connection with the Port of Chittagong, it may be mentioned that the term of office of all the Commissioners of the Port Trust expired during the year, and that a new body were appointed or elected.

7. The following table shows the work of the Civil Courts during the year. The information has, under the order of Sir Charles Elliott, been furnished by the Civil

Civil Justice.

Courts :—

DISTRICTS.	Sub-division or chauki.	Description of Court.	Number of officers	NUMBER OF ORIGINAL CASES DISPOSED OF.		DETAILS OF CASES IN COLUMNS 6A AND 6B.				Number of witnesses examined.	Ratio per cent. of witnesses detained over two days to total examined.	Ratio per cent. of cases pending at end of year to total disposed of.	
				Ordinary.	Small Cause Court.	Money.	Rent.	Title.					
1	2	3	4	5A	5B	6	7	8	9	10	11		
Chittagong	Sadar ... ..	Munsif ... ..	2	960	316	584	487	205	1,334	13	20		
	Sitakund ... ..	Do. ... ..	1	1,242	138	303	713	274	1,671	67	23		
	Patiekcherry ... ..	Do. ... ..	1	1,109	19	314	573	211	2,752	14	15		
	Hathazari ... ..	Do. ... ..	1	1,206	33	384	630	253	6,124	8	16		
	North Raojan ... ..	Do. ... ..	1	1,301	...	439	691	266	2,790	27	31		
	South do. ... ..	Do. ... ..	1	1,454	21	326	813	330	2,531	10	19		
	1st Patiya ... ..	Do. ... ..	1	2,225	152	506	2,008	43	2,720	18	14		
	2nd do. ... ..	Do. ... ..	1	612	253	360	108	387	2,311	27	23		
	Anwara ... ..	Do. ... ..	1	1,418	37	357	627	312	1,718	42	19		
	Salkania ... ..	Do. ... ..	1	1,471	33	454	787	253	1,718	6	21		
	Cox's Bazar ... ..	Do. ... ..	1	910	...	204	586	120	1,116	32	15		
	Anwara ... ..	Additional Munsif ... ..	1	845	...	235	222	386	2,023	20	23		
	Patiya ... ..		1	1,143	...	307	627	309	2,635	12	.....		
	North Raojan ... ..		Ditto ... ..	1	1,038	119	300	591	266	1,469	10	12	
Hathazari ... ..	Ditto ... ..	1		1,038	119	300	591	266	1,469	10	12		
Patiekcherry ... ..		Ditto ... ..		1	1,038	119	300	591	266	1,469	10	12	
Salkania ... ..				Ditto ... ..	1	1,038	119	300	591	266	1,469	10	12
South Raojan ... ..			Ditto ... ..		1	1,038	119	300	591	266	1,469	10	12
Sadar ... ..	Ditto ... ..				1	1,038	119	300	591	266	1,469	10	12
Sitakund ... ..		Ditto ... ..			1	1,038	119	300	591	266	1,469	10	12
Noakhali				Sudharam ... ..	Munsif ... ..	1	2,009	407	784	2,148	534	4,169	9	14
			Hemanganj ... ..	Do. ... ..	1	2,009	703	1,064	1,410	205	2,128	7	16
	Fenny ... ..		Do. ... ..	2	3,096	410	78	2,335	602	5,198	3	15	
	Sandwip ... ..	Do. ... ..	1	1,215	312	59	658	337	2,247	17	25		
	Lakhipur ... ..	Do. ... ..	2	3,512	722	1,209	2,747	278	5,423	24	12		
	Hatiya ... ..	Do. ... ..	1	866	...	349	301	156	1,084	16	13		
Tippah	Sadar ... ..	Munsif ... ..	7	8,636	2,081	4,943	5,462	1,212	18,763	11	16		
	Kacha ... ..	Munsif ... ..	2	2,776	448	804	1,321	306	4,103	28	31		
	Brahmanberia ... ..	Do. ... ..	3	2,886	1,956	2,513	1,010	719	6,136	16	23		
	Chandpur ... ..	Do. ... ..	3	3,440	2,469	3,205	2,753	341	9,063	13	17		
	Nabinagar ... ..	Do. ... ..	2	2,242	733	1,444	1,032	412	5,082	42	25		
	Total	.....	30	50,530	12,379	22,766	31,237	8,916	97,741	17	17*		
* Total for 1891-92			41	48,650	8,363	21,384	28,255	7,886	244,915	11	23		

\* This total for 1891-92 includes the figures of Judges or Subordinate Judges.

† Shows the number of witnesses attended.

The number of civil suits disposed of by Munsifs shows an increase from 56,708 to 62,909. The Commissioner quotes, as generally applicable to the Division, some comments made by Mr. Gun, the Judge of Noakhali, to the effect that increase of litigation continues. Causes for this increase are, it is said, to be found in the extension of cultivation, which induces disputes as to the ownership of fallow land, and in the increasing familiarity of the people with the law on the subject of occupancy rights, to enforce which many suits are brought.

## Criminal Justice.

8. The following statement shows the criminal work of the Division :—

DISTRICT.	Subdivision.	Class of officers.	Number of officers.	Cases disposed of.	Persons disposed of.	Ratio per cent. of persons convicted to disposed of.	Number of witnesses examined.	Ratio per cent. of witnesses detained over two days to total number examined.	Ratio per cent. of cases confirmed in appeal to total appealed.	Number of A cases disposed of.	Number remanded six times and more.	Average number of cases disposed of per officer.	Average number of witnesses examined per case.	Ratio per cent. of column 12 to column 11.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Chittagong	Sadar	Stipendiary	8	2,401	3,406	53	8,100	7	60	785	37	300	3	4
	Cox's Bazar	Ditto	2	480	679	55	1,817	17	79	228	13	240	4	5
Noakhali	Sadar	Ditto	7	1,187	1,754	50	6,947	8	68	190	1	170	6	5
	Fenny	Ditto	1	368	564	40	1,079	7	68	59	...	564	4	...
Tippura	Sadar	Ditto	5½	1,580	2,276	61	8,520	4	64	326	10	287	5	3
	Brahmanbaria	Ditto	2	1,009	1,451	57	6,161	1	80	245	1	504	6	4
	Chandpur	Ditto	1	605	1,189	65	3,238	1	89	170	1	606	5	6
	Total, 1892-93	Stipendiary	26½	7,718	11,319	57	36,502	6	69	2,003	63	206	5	3
	Total, 1891-92	Stipendiary	26½	7,240	10,875	54	55,204	10	79	1,802	172	276	7	9
Chittagong	Sadar	Honorary	1½	509	814	12	603	47	65	3	1	281	1	33
	Sadar	Ditto	1	264	306	41	571	9	...	...	...	264	2	...
Noakhali	Sadar	Ditto	6	512	366	49	933	7	68	3	...	52	3	...
	Sadar	Ditto	4	298	373	51	1,241	2	80	...	...	74	4	...
	Chandpur	Ditto	2	66	79	54	283	...	67	...	...	28	5	...
	Total, 1892-93	Honorary	11½	1,439	1,018	33	3,721	13	66	6	1	97	2	17
	Total, 1891-92	Stipendiary	9½	1,015	1,272	45	5,207	9	80	7	...	407	5	...

Taking the Division as a whole, cognizable crime increased by 657 while non-cognizable crime decreased by 441 cases. The increase in cognizable crime is localized in the district of Chittagong, and is due to an increase in offences against property caused by high prices in the beginning of the year, and to an increase in the number of prosecutions under the Arms, Salt, and Opium Acts and in the number of agrarian riots, which rose from 89 to 119. In Tippura the number of cases was nearly the same as in the previous year; but in contrast to Chittagong there was a marked decrease in riots, which is attributed to preventive measures taken by the Courts. Noakhali was unusually free from crime; cognizable cases fell from 1,189 to 1,057, and non-cognizable cases from 3,749 to 3,272. The Commissioner reproduces a description given by Mr. Nanda Krishna Bose, the Magistrate of Noakhali, of the system adopted by him of referring a large proportion of complaints to the village panchayats for report under section 202 of the Criminal Procedure Code. Out of 4,193 complaints, 1,260, or about 30 per cent., were so referred. Of this number, 722 did not again come before the Courts, having been amicably settled in the villages, 313 were subsequently enquired into magisterially, and 225 are pending. In order to provide a safeguard against the abuse of power by panchayats, Mr. Bose makes it an essential condition of the system that cases in which the panchayats fail to bring about an amicable settlement should invariably be enquired into magisterially. The Commissioner is of opinion that the system has no inherent excellence, and but few extrinsic virtues, but if, as is said to be the case, the panchayats command the confidence of the people, the Officiating Lieutenant-Governor would not discourage a system which seems to promote the amicable adjustments of petty difference and disputes. Mr. Greer adopted a similar method in Tippura with success, and mentions, as a point in favour of it, that the employment of panchayats tends to increase the importance of the office.

The Stipendiary Magistrates at Chandpur and Brahmanbaria in Tippura had according to these returns most work to do and disposed of it promptly; only about one per cent. of the witnesses being detained over two days. The Magistrate at Cox's Bazar, on the contrary, detained 17 per cent. of witnesses over two days, while in the case of the Honorary Magistrates of Chittagong the percentage rose to 47. The proportion of A Form cases remanded over six

times was generally insignificant, amounting to only 64 cases out of 2,009. The work done by Honorary Magistrates increased in every district, the total number of cases disposed of by this agency in the Division being 1,439 as against 1,015 in the previous year.

Sessions trials.

9. The following table shows the result of Sessions trials:—

Sessions trials.

DISTRICT.	Number of cases pending at commencement of year.	Number committed during the year.	Total for disposal.	Number disposed of.	Number in which conviction obtained.	Number in which sentences modified or reversed by High Court.	Number acquitted by Sessions Judges.
1	2	3	4	5	6	7	8
Chittagong	3	37	40	35	31	5	13
Noakhali	1	17	18	18	13	4	6
Tippera	...	38	38	30	28	•	8

Fines.

10. The amount of fines imposed, remitted, and collected is given below:—

DISTRICT.	Balance outstanding at commencement of the year.	Amount imposed during the year.	Total demand.	Amount collected during the year.	Amount remitted or written off during the year.	Total collected and remitted.	Balance outstanding at the end of the year.
1	2	3	4	5	6	7	8
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Chittagong	4 00 11 8	18 644 15 0	23,900 10 8	15 130 7 1	1,778 8 0	16,908 15 1	5,481 11 7
Tippera	5,097 11 4	27,873 0 3	32,969 11 7	27 315 4 3	1 324 6 9	28,031 11 0	4,330 0 7
Noakhali	2,514 15 10	8,736 5 9	11,251 6 7	8,137 0 6	1 444 14 7	9,557 15 1	1,191 0 6
Chittagong Hill Tracts.	622 15 3	625 12 0	1,148 11 3	701 14 3	194 15 0	898 18 3	249 14 0
Total	12,241 6 1	56,019 1 0	68,969 7 1	51,906 10 1	4,098 12 4	56,005 6 5	12,255 0 8

Except in Chittagong, the outstanding balance was smaller at the end than at the beginning of the year.

Attendance of Honorary Magistrates.

11. The following table shows the attendance of Honorary Magistrates:—

DISTRICT.	Number of Honorary Magistrates.	Number of times asked to attend.	Number of times actually attended	Absent with leave or notice.	Absent without leave or notice.	Total absences.	REMARKS.
1	2	3	4	5	6	7	8
Chittagong	38	645	577	84	219	303	There were 236 attendances without calls.
Noakhali	17	235	189	30	16	46	
Tippera	34	689	401	76	209	285	

The attendance was most satisfactory in Noakhali.

12. The registrations of the year under review exceeded those of 1891-92 by 4,486 in Chittagong, and 1,396 in Noakhali.

Registration.

The following table gives the figures for each district:—

## Registration Statement XVII.

DISTRICT.	Class of Registration office.	Number of offices.	Number of documents registered.	Average per office.
1	2	3	4	5
Chittagong ...	Special ...	1	5,103	5,103
	Rural ...	17	70,635	4,155
Noakhali ...	Special ...	1	8,716	8,716
	Rural ...	11	46,805	4,255
Tippera ...	Special ...	1	3,835	3,835
	Rural ...	12	35,378	2,948
Total ...	Special ...	3	17,654	5,884
	Rural ...	40	152,818	3,820

Two new offices are to be opened in Noakhali.

13. The demand, collection and balance of Land Revenue, road cess, and zamindari dák cess in each district are shown in the following table:—

DISTRICT.	Class of demand.	Class of estates.	Number of estates.	DEMAND.		COLLECTIONS.		BALANCE ON 1ST APRIL 1893.		REMARKS.
				Current.	Arrear.	Current.	Arrear.	Current.	Arrear.	
1	2	3	4	5	6	7	8	9	10	11
Chittagong ...	Land Revenue ...	I ...	28,711	Rs. 5,31,867	Rs. 3,534	Rs. 5,29,864	Rs. 3,534	Rs. 2,013	Rs. ....	(Rs. 1,540 was remitted.)
		II ...	2	9,084	...	9,084	...	...	...	
		III ...	6	4,00,168	53,559	3,83,143	35,101	22,910	17,024	
		Total ...	28,719	9,47,119	57,093	8,22,081	38,635	24,923	17,024	
	Road cess ...	Estates ...	41,546	1,76,000	14,944	*1,61,542	14,339	15,127	†603	* Includes Rs. 5,486 received as advance. † (Rs. 3 was remitted.)
Noakhali ...	Land Revenue ...	Rent-free tenures ...	...	...	...	...	...	...	...	† Includes Rs. 282 and Rs. 1,172 realized as fines. Total remission Rs. 1,542.
		Zamindari Dák ...	3,565	6,915	1,220	†0,341	‡2,344	856	54	
		District Total ...	...	11,30,703	73,263	10,82,064	55,318	40,915	17,631	
		Total ...	1,714	6,10,054	17,778	6,11,025	16,292	6,129	879	
	Road cess ...	Estates ...	2,288	1,33,185	13,400	1,32,124	13,347	3,068	40	Rs. 3 was remitted.
Tippera ...	Land Revenue ...	Rent-free tenures ...	1,160	1,535	275	1,306	243	220	33	Total remission, Rs. 2,510.
		Zamindari Dák ...	787	8,121	121	8,030	118	91	8	
		District Total ...	...	7,63,895	31,583	7,52,485	30,010	9,607	966	
		Total ...	1,804	9,21,780	6,061	9,19,472	6,001	2,317	...	
	Road cess ...	Estates ...	95	33,200	3,035	35,101	3,035	108	...	(Rs. 435 was remitted.)
Tippera ...	Land Revenue ...	III ...	139	90,478	13,720	88,500	11,622	10,981	1,810	
		Total ...	12,088	10,50,476	22,816	10,43,073	20,818	13,366	1,810	
		Road cess ...	3,437	2,14,184	26,324	1,97,037	25,900	10,217	365	
		Zamindari Dák ...	2,888	3,060	2,184	764	1,735	2,302	427	
	Road cess ...	Estates ...	790	7,101	836	6,516	635	675	1	(Rs. 32 was remitted.)
Tippera ...	Land Revenue ...	District Total ...	...	12,80,887	22,160	12,48,290	40,147	32,650	2,593	(Total remission, Rs. 407.) (Rs. 4,519 was remitted in the whole division and Rs. 1,484 realized as fines.)
		Divisional Total ...	...	31,75,485	1,57,006	30,00,739	1,54,473	82,972	31,240	
		Ditto for 1891-92.	...	31,43,745	1,60,833	30,20,060	1,42,788	1,24,925	30,629	

The Lieutenant-Governor observes with satisfaction an improvement in collections as compared with those of the previous year. Out of a total demand of Rs. 33,32,491 on account of land revenue, road cess, and zamindari dák cess, Rs. 32,25,214 were collected and Rs. 4,519 remitted, the balance being

Rs. 1,04,212, against Rs. 1,49,229 in 1891-92. The aggregate collections of the Division were good, and generally reached the prescribed standards, except that Noakhali failed to reach the standard for land revenue collections in private estates managed by Government and in Government estates let in farm, and Tippera for estates managed khas by Government, the latter failure being, it is said, due to the difficulty experienced in enforcing two new settlements. The payment of revenue and cesses by money-orders continues to grow in favour, 27,970 orders having been received as against 27,020 in the year preceding. As was to be expected, money-order payments are most common in Chittagong with its numerous small estates.

Payment of rent by money-orders is also growing popular: in Chittagong the practice was to all intents non-existent in 1891-92, but in 1892-93 the number of such orders was 6,517, covering Rs. 20,477. The number of sales of estates and tenures for arrears of revenue was less than in the preceding year.

14. The work of the Certificate Department is shown in the following statement:—

Certificates		statement:—						
DISTRICT	Department	Number pending at beginning of year.	Number issued during year.	Total for disposal	Amount of certificates	Number disposed of during year	Amount realised	Number pending at close of year.
1	2	3	4	5	6	7	8	9
Chittagong	Land Cess	636	3 80	3 016	Rs 20,082	3 433	Rs 23,713	464
	General	322	80	1 127	24 494	1,023	4,305	104
	Wards	312	881	1 223	29 235	1,001	15 066	323
	Government estates	128	1 100	1 774	42 078	3 024	30 535	150
	Total	1 498	8 412	10 440	1,29 459	9,080	74,519	939
Total for 1891-92		1 711	*10 687	1 586	1 89,070	10 977	98,220	1,421
Noakhali	Under section 7 of Act	19	41	55	7 981	48	7 075	7
	Do clause (f) section 7	91	184	215	3 118	186	2 910	29
	Rail (new) Department	147	564	711	12 015	433	12 023	72
	Court of Wards Department	218	31	528	15 125	4 9	10 511	119
	Other certificates under section 7	31	101	132	1 867	116	498	16
Total		439	1 012	1 441	40,706	1,198	32,112	243
Total for 1891-92		345	*1 -	1 577	44 575	1,446	28,965	481
Tippera	Under section 5 of Act	4	10	16	3 209	14	2 512	2
	Do clause (f) section 7	571	1 170	1 841	18 725	1,074	12 757	797
	Rail (new) Department	305	8 8	1 201	51 86	806	30 315	225
	Court of Wards	373	1 012	1 405	20 389	1 213	29 971	192
	Land Cess and miscellaneous	206	181	407	1 511	176	2,091	81
Total		1 297	3 279	4 570	82 409	3 383	71,044	1,287
Total for 1891-92		1 758	*1 614	5 378	75 718	3,775	49,691	1,597
Divisional Total		3,464	12 867	16 351	2 52,574	13 861	1 78,275	3,490
Divisional Total, 1891-92		3,814	*15 833	19 647	2 53,063	16,198	1,70,876	3,690

\* These figures for 1891-92 show the number of certificates filed during year

The number of institutions decreased in every district, and the number of pending cases was less at the end than at the beginning of the year.

15. In Chittagong 530.62 square miles were surveyed during the year with a view to settlement of revenue at a cost of Rs 91,353, showing a rate per acre of 6 annas 4 pies in the head-quarters sub-division and 6 annas 11 pies in the Cox's Bazar sub-division. The total area surveyed up to the close of 1892-93 is 1,586.62 square miles. As regards settlement, the Commissioner writes—

"In Chittagong, where *khanapuri* work is under the Settlement Officer, up to 31st March 1893, 1,735,427 khasra numbers had been dealt with, making a total of 3,991,643 plots up to the end of 1892-93. This excludes Old Thana Ramu. The records of 401 villages were prepared during the year for attestation. Existing rents were determined, and the status recorded for 227,813 riyats and for 112,659 other tenants. Towards the end of the year the soil map system was started, and soil maps for 110 villages with an area of 87 square miles were prepared. The subject of assessment is still pending. The total expenditure on settlement last year was Rs 1,38,828."

In Tippera the survey of the Sarail Estate, with 299 villages and an area of 154,450 acres, was completed at a cost of Rs. 1,05,588. In the estate of the Maharaja of Hill Tippera in this district, 344 villages extending over 150 square miles were cadastrally surveyed. The settlement proceedings in the Sarail Estate were completed with the result that the rental of the estate was raised by Rs. 55,704. The Commissioner writes—

"This settlement has been conducted with an entire absence of friction, though Sarail is one of the literate areas of Bengal, like pargana Bikrampur in Dacca and thana Patisa in

Chittagong. There were, I hear, only three appeals. The Settlement Officer was Babu Kali Sankar Sen."

Petty settlements were in progress in Tippera and Noakhali.

16. There were 15 estates in the Division under the Court of Wards, and the Commissioner speaks in high terms of the success with which they are managed, especially

Wards' estates.

in Chittagong, where the Court's management is reported to be so popular that the assumption of fresh estates has to be guarded against with some care. In Noakhali, owing to the scattered character of the estates, the expenses of management are greater.

In Chittagong several improvements were effected in the estates under management, the most prominent being the erection and maintenance of sea dykes, the construction of roads, and the excavation of tanks. Some agricultural experiments were also made, and several of the estates subscribed to schools and dispensaries.

17. The Excise revenue rose from Rs. 2,55,475 to Rs. 2,69,976, though, except in the case of opium and ganja in Chittagong, the consumption of excisable articles showed a slight tendency to decrease. The incidence of Excise revenue is about 11½ pice per annum per head of population.

Excise.

18. Including the Chittagong Hill Tracts, 50 per cent. of the boys of school going age are said to be at school, as compared with 51 per cent. in the year 1891-92.

Education.

Tippera and Noakhali show a backward tendency, while in Chittagong there has been a slight advance. The following table gives particulars of the schools in each district:—

DISTRICT.	Class of schools.	Number of schools.	Number of pupils on rolls.	Cost.						Cost per head of pupils.	Population.	Number of boys of school-going age.	Percentage of pupils on rolls to boys of school-going age.
				Provincial.	District Board.	Municipality.	Fees.	Other.	Total.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Chittagong	High ... ..	5	1,335	Rs. 3,820	Rs. 5,207	Rs. 339	Rs. 17,942	Rs. 903	Rs. 22,764	Rs. 17.0	...	...	...
	Middle ... ..	51	3,808	2,927	5,207	339	10,640	3,300	22,630	5.8	...	...	...
	Primary ... ..	983	29,003	5,177	9,260	175	28,282	7,210	50,130	1.6	...	...	...
	Miscellaneous ... ..	11	807	4,707	...	115	3,481	9,540	18,908	21.0	...	...	...
	Total for 1892-93 ...	1,050	35,733	17,000	14,557	629	60,391	21,150	1,11,836	3.2	1,290,107	92,350	58
Noakhali	High ... ..	5	850	Rs. 2,812	Rs. 3,396	...	Rs. 12,180	Rs. 3,390	Rs. 19,078	Rs. 22.2	...	...	...
	Middle ... ..	45	2,583	2,700	3,396	...	6,280	2,487	14,863	5.7	...	...	...
	Primary ... ..	1,305	32,270	1,481	4,200	60	25,905	9,284	38,000	1.1	...	...	...
	Miscellaneous ... ..	10	17,245	4,507	9,440	...	965	6	14,920	8	...	...	...
	Total for 1892-93 ...	2,501	52,564	11,560	17,045	60	45,640	12,556	8,867*	1.6	1,000,603	76,809	69
Tippera	High ... ..	4	1,088	Rs. 3,144	Rs. 5,174	...	Rs. 17,024	Rs. 565	Rs. 10,733	Rs. 18.1	...	...	...
	Middle ... ..	10	4,323	3,829	5,174	49	13,905	8,803	31,640	7.3	...	...	...
	Primary ... ..	5,061	64,590	3,661	23,010	241	88,706	31,008	1,41,200	2.1	...	...	...
	Miscellaneous ... ..	7	197	321	2,500	...	1,164	300	4,89	22.1	...	...	...
	Total for 1892-93 ...	3,152	70,198	8,961	30,604	289	1,15,145	42,168	1,07,147	2.7	1,782,935	1,07,770	51
Chittagong Hill Tracts.	High ... ..	1	90	Rs. 4,264	...	...	Rs. 331	Rs. 26	Rs. 4,855	Rs. 53.0	...	...	...
	Middle ... ..	35	571	3,389	...	...	...	...	...	...	...	...	...
	Primary ... ..	...	...	...	...	...	...	...	...	...	...	...	...
	Miscellaneous ... ..	...	...	...	...	...	...	...	...	...	...	...	...
	Total for 1892-93 ...	36	661	7,653	...	...	331	388	8,967	12.6	107,091	8,905	7
Total of Division	High ... ..	15	3,363	13,040	...	...	47,733	5,648	60,430	19.7	...	...	...
	Middle ... ..	176	10,804	9,516	13,807	387	30,861	14,690	60,361	6.1	...	...	...
	Primary ... ..	5,474	127,034	12,610	36,630	476	1,38,013	45,219	2,22,844	1.8	...	...	...
	Miscellaneous ... ..	1,014	18,300	10,530	11,959	115	4,806	10,700	38,188	2.0	...	...	...
	Total for 1892-93 ...	6,729	160,564	46,774	62,206	978	2,21,513	70,318	4,00,817*	2.5	4,180,886	314,504	50
	High ... ..	5	1,335	Rs. 3,820	Rs. 5,207	Rs. 339	Rs. 17,942	Rs. 903	Rs. 22,764	Rs. 17.0	...	...	...
	Middle ... ..	51	3,808	2,927	5,207	339	10,640	3,300	22,630	5.8	...	...	...
	Primary ... ..	983	29,003	5,177	9,260	175	28,282	7,210	50,130	1.6	...	...	...
	Miscellaneous ... ..	11	807	4,707	...	115	3,481	9,540	18,908	21.0	...	...	...
	Total for 1891-92 ...	1,040	34,788	15,072	12,299	609	55,072	22,092	1,00,544	3.06	1,290,107	90,784	35
	High ... ..	5	850	Rs. 2,812	Rs. 3,396	...	Rs. 12,180	Rs. 3,390	Rs. 19,078	Rs. 22.2	...	...	...
	Middle ... ..	45	2,583	2,700	3,396	...	6,280	2,487	14,863	5.7	...	...	...
	Primary ... ..	1,305	32,270	1,481	4,200	60	25,905	9,284	38,000	1.1	...	...	...
	Miscellaneous ... ..	10	17,245	4,507	9,440	...	965	6	14,920	8	...	...	...
	Total for 1891-92 ...	2,522	54,592	8,700	17,738	60	40,017	11,890	75,391	1.3	1,000,603	75,727	73
	High ... ..	4	1,088	Rs. 3,144	Rs. 5,174	...	Rs. 17,024	Rs. 565	Rs. 10,733	Rs. 18.1	...	...	...
	Middle ... ..	10	4,323	3,829	5,174	49	13,905	8,803	31,640	7.3	...	...	...
	Primary ... ..	5,061	64,590	3,661	23,010	241	88,706	31,008	1,41,200	2.1	...	...	...
	Miscellaneous ... ..	7	197	321	2,500	...	1,164	300	4,89	22.1	...	...	...
	Total for 1891-92 ...	3,247	71,196	8,960	27,807	40	1,12,015	30,76	1,40,070	2.6	1,782,935	183,730	53
	High ... ..	1	90	Rs. 4,264	...	...	Rs. 331	Rs. 26	Rs. 4,855	Rs. 53.0	...	...	...
	Middle ... ..	35	571	3,389	...	...	...	...	...	...	...	...	...
	Primary ... ..	...	...	...	...	...	...	...	...	...	...	...	...
	Miscellaneous ... ..	...	...	...	...	...	...	...	...	...	...	...	...
	Total for 1891-92 ...	19	661	8,598	...	...	331	388	8,963	16.6	107,286	8,046	4
	High ... ..	15	3,363	13,040	...	...	47,733	5,648	60,430	19.7	...	...	...
	Middle ... ..	176	10,804	9,516	13,807	387	30,861	14,690	60,361	6.1	...	...	...
	Primary ... ..	5,474	127,034	12,610	36,630	476	1,38,013	45,219	2,22,844	1.8	...	...	...
	Miscellaneous ... ..	1,014	18,300	10,530	11,959	115	4,806	10,700	38,188	2.0	...	...	...
	Total for 1891-92 ...	6,837	160,894	46,242	57,904	713	2,07,963	71,074	3,73,898	2.3	4,180,081	314,356	51

\* Include an additional expenditure of Rs. 14,985 for special training in the Noakhali district.

There were altogether 6,739 schools with 159,546 pupils, against 6,837 schools and 160,864 pupils in the previous year, but the expenditure increased



from Rs. 3,73,898 to Rs. 4,06,817. Tippera shows the largest expenditure on primary education, and Noakhali the largest proportion of boys at school. The average cost of each pupil at primary schools is almost twice as much in Tippera as in Noakhali and Chittagong. The proportion of boys at school to the total number of boys of school-going age (excluding the Hill Tracts) is smallest in Chittagong, where it is only 38 per cent., as against 69 per cent. in Noakhali and 50 per cent. for the division. But the attendance on the whole as shown by these figures is exceedingly good, the result being due no doubt partly to the popularity of the *Koran* schools. The expenditure of the District Board of Chittagong on middle schools appears to be unduly large. The contributions made by Municipalities for the support of education in the Division, amounting to Rs. 978, are insignificant and inadequate. The remarkable increase in female education which was noticed last year has not been maintained, as the Tippera and Noakhali District Boards were unable to subsidize girls' schools on the same scale as before, but it is said that there is no prejudice against female education, and that, though their numbers have decreased, girl-scholars have distinguished themselves fairly.

In Tippera 66·1 per cent. of the primary pupils were Muhammadans. The Lieutenant-Governor notices with pleasure the progress of the Faizunissa School for girls and of the recently established Elliott Artizan School.

#### Dispensaries

19. The following table gives statistics relating to dispensaries :—

DISTRICT	Number of dispensaries	INCOME FROM—					DAILY AVERAGE PATIENTS		Ratio per cent of outdoor patients to total population
		Government	District Board	Municipality	Subscriptions	Total	In patients	Out-patients	
1	2	3	4	5	6	7	8	9	10
Chittagong	7	Rs. 1 90	Rs. 4,704	Rs. 4 757	Rs. 1 10	Rs. 11 100	15 91	134 36	3 5
Noakhali	6	35	2 75	1 9	1 9	3 90	5 50	68 19	1 5
Tippera	15	1 35	10 000	1 731	1 11	18 714	14 08	815 92	4
Chittagong Hill Tracts	1	—	—	—	—	628	—	21	5
Total	29	717	16 80	6 493	8 30	31,493	3, 80	517 47	2 9

Tippera is by far the most advanced district in the Division in respect of medical aid. The District Board under Mr. Greer's administration maintained 11 dispensaries on the system described last year, under which a certain amount of local subscriptions is insisted upon. Two dispensaries in this district are entirely maintained by the Nawab of Dacca.

The following remarks regarding the Faizunissa Zanana Hospital are quoted from the Commissioner's report :—

"A lady doctor was entertained from the 23rd May 1892. At present she attends the dispensary and visits patients in their houses, and her work is popular, as she treated 1,615 patients last year. She will be stationed at the zanana hospital, where it is proposed to form accommodation for all the dispensary female patients. This lady doctor has free quarters, and gets Rs. 90 a month—Rs. 50 from the District Board, Rs. 30 from the Maharaja, and Rs. 10 from the local branch of the Lady Dufferin Fund."

20. The following remarks of the Commissioner regarding the Chittagong and Noakhali Municipalities are reproduced :—

#### Local Self-Government Institutions

"In previous reports the Chittagong and Noakhali Municipalities were very unfavourably noticed, though, with a change in the executive, the former was trying hard to regain its position. Thus it has now completely done, and it is, as it should be, in management and efficiency the first Municipality in the Division, with a rapidly developing revenue, which is being punctually collected. The chief improvement effected out of doors has been the great extension of town lights. The latrine system is still radically bad. This is the burning subject of local interest, and each attempt at reform has roused much agitation. The Commissioners have finally resolved to wait for the amended municipal law. The cost of establishment is high in Chittagong, and this is accounted for by local conditions. The Chairman, Mr. Good, with Babu Satish Chandra Sen, the Vice-Chairman, deserve the entire credit for the reforms effected. In December 1892 I inspected the Noakhali Municipality, and was able to submit a favourable report to Government. In this case order was restored without any change in the personnel, which had permitted the disorder."

The Lieutenant-Governor hopes that continued efforts will be made to improve the working of these Municipalities.

The Commissioner reports that the working of the three District Boards has been very satisfactory, and that the three Local Boards in Tippera have worked as well as could be expected. The percentage of cost of establishment to income is highest in the case of the Chittagong District Board (13 per cent.), and lowest in that of the Noakhali District Board (8·9 per cent.).

21. On the state of public feeling, the Commissioner makes the following remarks :—

Public Feeling.

“There is no indication that public feeling, as the term is generally understood exists in the Division. I should say that our vaccination operations form the subject most widely felt. The people are interested in them and accept them because inoculation is not permitted, but they do not understand or are not convinced by the prohibition, and prefer and often ask for inoculation and frequently practise it. In Chittagong the settlement is a general topic, and in Tippera it is the chief topic in the smaller area where it has begun, though the people there have not formed any defined ideas about it yet, because it is a new measure. But in Chittagong there is an old and famous standard for comparison, and though the people realize that it is, for working purposes, obsolete, they felt, if only from mere objection to change, a general dislike to the new methods which are being substituted, and this has been constantly expressed, though its reasonableness has never been sustained by instances or attempted to be pushed to proof. In practice individuals confine themselves to ascertaining what they will lose or gain, and Mr. Slack now says the tenantry have grasped the nature of the work and regard the operations as beneficial.

“It is worth while here to refer to the relations of the people with the agents of Government. It would not be an exact description to call these relations cordial, but they are eminently business-like, and marked with confidence, and are the most satisfactory that I have seen anywhere in India. The people, especially in Chittagong, where wealth is so generally diffused, are particularly independent and self-respecting. It can be plainly seen that they regard the officers of Government as capable agents for transacting their public business, in whom they repose not implicit, but full, ordinary, and sufficient confidence. Thus the way in which a District Magistrate and rural postmaster is regarded only differs in degree. The bearing of the people to all is much the same. It is dignified, and while it is the opposite of cringing and servile, it is neither self-asserting nor obtrusive.”

22. The Maharaja of Hill Tippera and the Nawab of Dacca have maintained their characters as beneficent zamindars. The Sobhabazar family of Calcutta are favourably mentioned with the Maharaja for their ready compliance with the wishes of Government in regard to the removal of the Gumbi embankment in their estates. Nawab Sahiba Faizunissa and her lady co-sharers continued to be the benefactresses of Comilla, where also Syed Hossein Haider is well spoken of. On the other hand, the Nag family Baradihi in Dacca are unfavourably mentioned, their relations with their tenants in Tippera being so strained that the employment of police, the appointment of special constables, and, finally, the application of chapter X of the Tenancy Act, became necessary in the disturbed tract.

23. The Commissioner gives an interesting account of the Chittagong Hill Tracts, of which Mr. C. S. Murray, C.I.E., was in charge throughout the year. The rules framed in continuation of the Hill Tracts Rules of 1860 were brought into force, initiating a territorial system of jurisdiction in place of the tribal and nomadic system, irrespective of physical boundaries, which had until recently been recognized. The determination of areas led necessarily to the definition to some extent of the powers and duties of the indigenous agents within those areas. Thus major divisions, known as taluks, have been formed in the three chieftaincies' circles, and within the taluks 61 mauzas have been formed, and mapped and settled under headmen. The introduction of these changes in complete detail can only be gradually effected, as the people become accustomed to them.

Another reform was effected in the abolition of the system known as the Trade Pass system, designed originally to prevent smuggling, but afterwards amplified for statistical purposes. The system was found to confine and restrict trade, and a simpler system has been adopted, from which good effects are expected.

A Land Revenue Report was submitted for the first time during the year, in connection with a tentative system introduced for the collection of revenue from arable land, that is, land actually brought under the plough. The Commissioner's account shows that, though the demand of rent has risen from Rs. 1,400 to Rs. 6,200 in a single season, considerable care has been taken in

making assessments. It is stated, that for some time to come, each jama<sup>bandi</sup> must be locally examined and revised every year.

The payment of all Government dues by money-order was authorized in the Hill Tracts during the year.

Weather and crops were normal, and public health was good. There was little crime, and it is satisfactory to note the Commissioner's remark that, in two cases of murder, the indigenous agents gave the promptest and most efficient aid, which led to the punishment of the offenders.

In Hill Tippera the Minister, Rai Uma Kanta Das Bahadur, was permitted to retire during the year. He had thoroughly reorganized the finance of the State and relieved it of its embarrassments. His attempts, however, to bring the administration of the state into accord with advanced ideas led to complications, and his position became untenable. Mr. McMinn has been appointed to have charge of the zamindaris, and to superintend the survey on the Maharaja's behalf.

24. The Lieutenant-Governor thanks Mr. Oldham for his administration of the Division which was efficient in every department throughout the year, and notices with satisfaction the praise bestowed by him upon the Collectors of Tippera, Chittagong, and Noakhali. The report on the qualifications of officers will be communicated to the Appointment Department, intimation being given to the officers concerned in cases where seriously unfavourable remarks have been made.

By order of the Lieutenant-Governor of Bengal,

M. FINUCANE,

*Offg. Secretary to the Govt. of Bengal.*

# RESOLUTION ON THE REPORT OF THE BOARD OF REVENUE ON THE ADMINISTRATION OF THE SALT DEPARTMENT FOR THE YEAR 1892-93.

FINANCIAL DEPARTMENT—SEPARATE REVENUE.

Darjeeling, the 30th September 1893.

RESOLUTION No. 286T.—F.

READ—

The Report of the Board of Revenue on the Administration of the Salt Department for the year 1892-93.

The report which the Board of Revenue submit on the administration of the Salt Department is complete and instructive. In the following paragraphs the Lieutenant-Governor indicates for general information the leading features of the Board's report.

2. *Receipts and charges.*—The following statement shows the receipts and charges of the Salt Department during each of the last six years:—

*Approximate Statement of Receipts and Charges of the Salt Department for the years 1887-88 to 1892-93.*

HEADS.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	Increase in 1892-93 compared with 1891-92.	Decrease in 1892-93 compared with 1891-92.
1	2	3	4	5	6	7	8	9
<b>RECEIPTS.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>
<i>Imperial—</i>								
Import duty on salt	1,85,30,950	2,27,28,686	2,25,83,526	2,30,66,057	2,39,34,010	2,40,16,650	82,631	..
Excise ditto	3,82,864	3,22,087	1,98,310	3,21,044	40,437	2,01,078	1,55,241	..
<b>Total</b>	<b>1,89,13,804</b>	<b>1,80,50,773</b>	<b>2,27,82,136</b>	<b>2,33,87,701</b>	<b>2,39,80,446</b>	<b>2,42,18,328</b>	<b>2,37,872</b>	<b>..</b>
<i>Provincial—</i>								
Rent of warehouses	45,726	53,998	90,100	93,545	83,210	57,034	..	<b>29,876</b>
Miscellaneous	32,482	31,107	36,909	36,809	(a) 28,803	(a) 40,033	17,740	..
<b>Total</b>	<b>78,208</b>	<b>85,105</b>	<b>1,27,009</b>	<b>1,30,354</b>	<b>1,12,103</b>	<b>1,00,267</b>	<b>..</b>	<b>17,836</b>
<b>Total Receipts</b>	<b>1,89,92,012</b>	<b>2,31,35,908</b>	<b>2,29,09,245</b>	<b>2,35,17,145</b>	<b>2,40,92,550</b>	<b>2,43,18,595</b>	<b>2,29,086</b>	<b>..</b>
<b>CHARGES.</b>								
<i>Imperial—</i>								
Salaries, establishments, and contingencies.	20,000	20,000	20,000	20,000	20,000	20,000	..	..
Compensation paid under convention with the French Government.	2,02,044	2,20,413	2,36,190	2,09,304	2,01,100	1,53,935	..	<b>47,174</b>
Refunds of customs duty on salt	2,22,044	2,40,413	2,56,190	2,29,304	2,21,100	1,73,935	..	<b>47,174</b>
<b>Total</b>	<b>2,22,044</b>	<b>2,40,413</b>	<b>2,56,190</b>	<b>2,29,304</b>	<b>2,21,100</b>	<b>1,73,935</b>	<b>..</b>	<b>47,174</b>
<i>Provincial—</i>								
Salaries, establishments, and contingencies.	12,308	21,223	46,521	68,258	51,008	1,23,717	72,119	..
Refunds other than customs and excise duty.	..	..	..	..	5	43	38	..
<b>Total</b>	<b>12,308</b>	<b>21,223</b>	<b>46,521</b>	<b>68,258</b>	<b>51,013</b>	<b>1,23,770</b>	<b>72,157</b>	<b>..</b>
<i>Imperial—</i>								
Charges of the Orissa Salt Department.	..	..	1,07,204	1,10,406	(b) 1,33,003	(b) 1,51,068	18,050	..
<b>Total Charges</b>	<b>2,34,412</b>	<b>2,67,636</b>	<b>4,10,015</b>	<b>4,08,118</b>	<b>4,05,725</b>	<b>4,48,758</b>	<b>43,033</b>	<b>..</b>
<b>Approximate net revenue</b>	<b>1,87,57,600</b>	<b>2,29,71,332</b>	<b>2,24,99,230</b>	<b>2,31,00,027</b>	<b>2,36,86,825</b>	<b>2,39,69,837</b>	<b>1,83,003</b>	<b>..</b>

(a) Includes the cost-price of salt manufactured under the direct management of Government in Orissa.  
(b) Details are given in the statement in paragraph 3 below.

3. The year under review as compared with 1891-92 shows an increase of Rs. 2,26,036, or '93 per cent. in the receipts, and of Rs. 43,033, or 10·6 per cent. in the charges, giving a net revenue of Rs. 2,38,69,837, which is higher than that of 1891-92 by Rs. 1,83,003, or '77 per cent. There has been an almost unbroken advance in the salt revenue since the year 1887-88, and the figure recorded during the year is higher than that of any other year since the year 1881-82,—the last year in which duty was realized at the rate of Rs. 2·14 per maund. The large advance in the amount of the receipts in the year 1888-89 is due to the increase of duty from Rs. 2 to Rs. 2·8 per maund on the 19th January 1888. For some years this enhancement of duty affected the revenue to some extent by reducing importation, but the effect has now disappeared, and there has been a full recovery; the amount of salt on which duty was paid during the year being the highest on record, except that of the years 1884-85 and 1886-87. The increased revenue from "Import duty," which is by far the most important item on the receipt side, is attributed by the Board partly to the fact that owing to the lower prices prevalent during the year, an absolutely larger quantity of salt was cleared for sale, and partly to a smaller quantity of duty-paid salt having been imported from Bombay and Madras. The revenue from excise salt shows a material improvement on the figures for the year 1891-92,—a result which the Board ascribe to the larger outturn of the Government factories in Orissa; to the restriction on the sale of Ganjam salt during a part of the year;

to the fall in the price of excise salt; and to the forced sale by auction of a quantity of excise salt for the recovery of charges due from certain licensees. The proceeds from "Rent of warehouses" show a decline owing to the quantity bonded being less and to a general reduction in the stock kept at the golahs during the year. The reason is that, owing to the exceedingly low rate of freight and the difficulty of obtaining cargo, there was no object in rapidly discharging salt-laden ships, and owners found that it paid them better to sell salt direct from the ships instead of discharging and storing it. Moreover, the fluctuations in exchange have militated against the storage of salt in golahs for long periods, while at the same time the increased facilities for discharging salt quickly from steamers have enabled shipments to be made to definite order and to meet immediate requirements. It is probable that, if there is an improvement in the rates of freight, the golahs will be more used than they are at present, and a larger revenue derived from warehouse-rents. The increase under the head "Miscellaneous" is due partly to an increase in the amount realized in Orissa on account of the cost price of Government salt, and partly to the recovery of a sum from the East Indian Railway Company for the use of the siding within the Sulkea Golahs. The provincial expenditure on account of salaries, establishments, and contingencies, not including Orissa, amounted to Rs. 1,23,727, against Rs. 51,608 in the previous year. The increase was chiefly due to the payment of an honorarium of Rs. 75,000 to Mr. Kilby on account of the scales invented by him, which continue to give complete satisfaction.

4. *The Salt Trade.*—The fluctuations in the volume of the salt trade in Bengal during the last two years are illustrated in the following statement:—

				1891-92.		1892-93.	
				Mds.	Mds.	Mds.	Mds.
OPENING STOCK	Sea-imported salt in bond.	Calcutta and Sulkea. Chittagong ..	21,88,367		18,58,342		
			3,09,135		93,884		
			24,97,492		14,52,226		
	Excise salt in bond	Cuttack Puri .. Balasore ..	68 597		37,832		
			702		106		
			59,299		37,938		
			25,56,791		14,90,164		
IMPORT AND MANUFACTURE.	Sea-imported	Calcutta Chittagong ..	88,04,617*		80,83,330†		
			2,48,380		3,96,567		
			90,52,997		93,84,887		
	Manufactured or added.	Cuttack Puri .. Balasore ..	8,554		52,962		
			431		14,240		
			8,985		67,202		
			90,61,982		94,52,089		
CLEARANCES	Sea-imported salt from ship-board.	Calcutta Chittagong Narainganj ...	56,99,167†		61,72,826†		
			44,784§		53,721		
			1,56,293		1,20,879		
			59,00,244		63,47,426		
	Sea-imported salt from bond.	Calcutta and Sulkea. Chittagong Narainganj ..	38,79,451||		35,16,579**		
			2,29,340		1 93,591		
			24,710		...		
		41,83,501		37,10,170			
Excise salt from bond	Cuttack Puri .. Balasore ..	...		...			
		18,040		67,471			
		826		18,859			
			18,866		81,329		
			1,00,52,611		1,01,38,924		
CLOSING STOCK ...	Sea-imported salt in bond.	Calcutta and Sulkea. Chittagong ...	13,58,342		6,00,088		
			93,884		1,19,231		
			14,52,226		7,19,317		
	Excise salt in bond	Cuttack Puri .. Balasore ..	37,832		19,908		
			106		250		
			37,938		20,158		
			14,90,164		7,39,475		

\* Includes 1,715 maunds found in excess in the golahs and 6 maunds found by re-weighment.

† Ditto 1,579 maunds found in excess in the golahs.

‡ Ditto 1,28,718 maunds of Bombay salt and 3,138 maunds of Madras salt, which were passed free of duty.

§ Excludes 2,628 maunds, the duty on which was paid during the previous year, but which were cleared during the year.

|| Ditto 4,19,128 maunds of Bombay salt, which was passed free of duty.

\*\* Includes 2,96,577 maunds of Bombay salt, which was passed free of duty.

The stock in the golahs at the commencement of the year under review was far below the opening stock of any of the three preceding years, and at the close of the year, for the reasons already stated above, it had been so far reduced as to be less than the closing stock in any of the last five years. There were, however, in addition to the stock in the golahs, 6,23,060 maunds lying afloat in ships and destined to be sold direct to purchasers.

5. *Imports.*—The imports into Calcutta and Chittagong show a net increase of 3,32,032 maunds, or 3·6 per cent., as compared with the figures of 1891-92. The following statement shows the different countries and places from which the shipments were made:—

GROUP.	WHENCE IMPORTED.	TOTAL.		Percentage of quantity imported in 1892-93 for each group.
		1891-92.	1892-93.	
1	2	3	4	5
I	United Kingdom ...	Mds. 55,27,227	Mds. 59,40,724	Mds. 63·3
II	Hamburg ...	16,55,709	9,38,190	9·8
III	Fougies (Asiatic Turkey) ...	56,070	...	....
IV	Ras Rawayah ...	.....	1,59,572	} 20·5
	Jeddah, Muscat, and Saliff ...	2,99,208	7,27,481	
	Aden ...	8,79,841	9,99,718	
V	Madras ...	42,118	73,940	·7
VI	Bombay ...	5,91,103	5,43,683	5·7
	Total ...	90,51,276	93,83,368	100·0

The decline in imports was brought about chiefly by the falling off in shipments from Hamburg, which were 7,17,519 maunds less than in 1891-92. The Collector of Customs is inclined to think that the decrease is due in some degree to interference in the market by a Syndicate or other combination to control prices, and also to a falling off in the general direct trade with Hamburg. Whatever the cause may be, the Board are certainly right in saying that it is premature to assume that this class of salt has fallen permanently into disfavour. The importation from Fougies or New Fokia in Asiatic Turkey ceased altogether, while Bombay shows a decline of 47,420 maunds.

6. *Sales of imported salt.*—Including Bombay and Madras salt cleared free of duty in Calcutta, 63,47,425 maunds of salt were cleared from shipboard, against 59,00,244 maunds in the previous year, giving an increase of 4,47,181 maunds or 7·6 per cent. in the quantity cleared, and of Rs. 10,89,043 or 7·5 per cent. in the duty realized. On the other hand, the clearances from bond fell from 41,33,501 maunds to 37,10,170 maunds, while the duty on such clearances decreased by Rs. 9,87,412. On the whole, the total clearances of all kinds, including those of excise salt, rose from 1,00,52,611 maunds to 1,01,38,924 maunds.

7. *Consumption of Salt.*—Deducting from the above clearances the net exports from Bengal, amounting to 7,39,361 maunds, and adding 34,360 maunds, being the quantity of saltpetre salt brought into use, the balance of salt left for consumption in Bengal during 1892-93 was 94,33,923 maunds, or an average of 10½ lbs. per head of the population. In the saliferous tracts, excluding Orissa, there was a general decline in the consumption of licit salt, which is ascribed partly to the prevailing scarcity and partly to a defect in the law which it is intended shortly to correct. The amount consumed per head averaged 10 lbs. 5 oz., which, notwithstanding the decline, was still above the average per head in the rest of Bengal (10 lbs. 4 oz.). That the consumption of licit salt in the districts within salt law limits is usually greater than in the rest of the Province is strange—all the more so, because the price of salt there is generally slightly higher than elsewhere: the explanation that those districts are in ordinary years exceptionally

prosperous does not appear altogether adequate. In the Bombay and Madras Presidencies the average consumption per head during 1891-92 was 11·82 lbs. and 16·34 lbs. respectively, and in Orissa it was nearly 10 lbs. The Board's report deals fully with the fluctuations of consumption in each district, and it is necessary in this place only to notice the increase of 9·3 per cent. in Midnapore, which is attributed to more active measures for the suppression of dealings in illicit salt, and at the other end of the scale the decrease of 10·8 per cent. in the 24-Parganas, where the authorities are charged with some laxity, and where there was also some slight distress during part of the year.

8. *Inland trade.*—The districts of Bengal Proper derive their supply of salt chiefly from the ports of Calcutta and Chittagong, Orissa gets a portion of its supply by local manufacture and by importation from Ganjam, and the Bihar districts are supplied partly from the North-Western Provinces. The total imports by land fell from 5,53,093 maunds in 1891-92 to 4,21,188 during the year under report. The decline was almost entirely in salt imported into Orissa from Madras, and was no doubt due to the increased production and the fall in price of locally manufactured salt. The exports also fell from 12,51,475 to 11,62,549 maunds, the chief decline being in exports by river to Assam.

9. *Price of salt.*—Statements A and B appended to the Board's report give for the last two years the wholesale price of salt (*a* at monthly intervals in the bazars of district head-quarters, and (*b*) at fortnightly intervals in certain selected

Salt station.	Year.	Average price per maund ex-duty.
Bartha ... ..	1892-93	Rs. 4 0
	1891-92	0 5 5½
	1892-93	0 5 2
Sibantapur ... ..	1891-92	0 7 9
	1892-93	0 5 3
	1891-92	0 8 3
Timur ... ..	1892-93	0 2 0
	1891-92	0 5 2
	1892-93	0 6 1
Tua ... ..	1892-93	0 4 0
	1891-92	0 8 8
	1892-93	0 1 0
Gurubai ... ..	1891-92	.....

\* These prices were of Government salt. There were no excise stocks at Bartha and Gurubai.

marts, and they show that salt equally with other commodities is affected by the tendency of improved communications to equalise prices in widely separated places. The prices on the whole were lower than in the previous year. The fluctuations in the wholesale price of Liverpool salt during the year under report were unusually small. In 1891-92 the price per 100 maunds, exclusive of duty, ranged from Rs. 80 to Rs. 53 with an average for the year of Rs. 64-11-11; in 1892-93 the highest price was Rs. 68-12 and the lowest Rs. 57-8. The average price has fallen during the past five years from Rs. 94-6 to Rs. 61-9-3. The statement given in the margin shows the average prices of Government salt,

exclusive of duty, at each of the Orissa factories during the last two years. The prices were lower than in the preceding year.

10. *Working of the Salt Laws and rules.*—The total number of seizures of contraband salt, including those in the Orissa districts, rose from 1,435 to 2,015 during the past year, and the quantity attached from 497½ to 1,67½ maunds, but this total includes 702 maunds which were seized in Backergunge at one time, because they were not protected by a rowana, but afterwards released on duplicate rowanas being produced. There were in all, excluding pending cases, 1,472 prosecutions under the Salt law during the year, being an increase of 143 on the previous year. Convictions were obtained against 1,420 persons out of 1,555 apprehended. Considerable fluctuations occur in the scale of rewards sanctioned in different districts, and the whole subject is under the consideration of the Board. There appears to be reason to believe that in the Diamond Harbour subdivision of the 24-Parganas and in the Midnapore district illicit manufacture was carried on to some extent. In the former district the simultaneous decline in the consumption of licit salt, and in the prosecutions for offences against the Salt law, seem to justify the Board's conclusion that want of vigilance on the part of the authorities was the main cause of the decrease in consumption. In the latter district 403 persons were prosecuted during the year for illicit manufacture and 394 were convicted. Mr. Bompas, the Subdivisional Officer of Contai, computed that in 1891-92 not less than 30,000 maunds of illicit salt were consumed within the rowana limits of the Midnapore district, and that probably another 20,000 maunds were exported.

11. Proposals were made during the year by the Government of Bengal for the amendment of the Bengal Salt Act of 1864, with a view to increasing the penalty for illicit possession and transport of salt; but the Government of India have determined that before action can be taken, an enquiry should be made by an officer of the Northern India Salt Department as to the extent of illicit



manufacture in the saliferous tracts of Bengal outside Orissa. This enquiry will take place during the coming cold season.

12. *Salt in Orissa.*—In accordance with custom the Board devote a separate part of their report to the administration of the Salt Departments in Orissa. In this province, by an arrangement which has been in force since 1886, the operations of the department are conducted by officers of the Government of Madras, and are divided into manufacture and prevention. The factories at work in Orissa during the year under review for the manufacture of *karkach* salt in evaporating pans were those at Sartha in the district of Balasore, and at Tua and Gurubai in the district of Puri, and they were all managed direct by Government: the Sartha factory has now been closed in view of the difficulty of procuring labour and the insufficiency of the brine supply. It is satisfactory to note that the quality of the salt turned out at these factories was much better than in the last few years, and the quantity manufactured about eight times as great as in 1891-92. The receipts of the Orissa Salt Department rose from Rs. 47,087 to Rs. 2,17,410, chiefly by reason of the increased receipt of duty on the larger quantities manufactured, and the expenditure advanced from Rs. 1,33,003 to Rs. 1,51,053 on account of the necessarily increased charges for manufacture and establishment. The percentage of the charges to the receipts thus amounts to 69·4, which at first sight appears to be preposterously high; but if the duty realised elsewhere on salt consumed in Orissa be included in the calculation, as the Madras Salt Department contend that it should be, the total revenue would amount to Rs. 17,73,362, and the charges will then bear the moderate ratio of 8·5 per cent. to this amount. The Board of Revenue in their report for 1891-92, as well as in that under review, urge the equity of this contention, which appears to the Officiating Lieutenant-Governor to be not unreasonable on the ground that but for the existence of the Preventive Establishments a great part at any rate of this revenue would not have been realised. It is owing to these establishments that, practically speaking, the local demand is not supplied by illicit manufacture; and as the consumption of licit salt, whether imported or locally manufactured, is therefore a consequence of the action of these establishments in Orissa, it seems only fair to set off against the charges, if not all, certainly a large part of the duty levied on salt consumed in Orissa.

13. *Changes proposed.*—The question of amending the Salt Law in Orissa with the object of suppressing the illicit manufacture of salt in that province lately engaged the attention of Government, and proposals were submitted to the Government of India to amend in some respects the Indian Salt Act XII of 1882, which is in force in Orissa. The Government of India, while accepting generally the principles embodied in these proposals, has suggested for consideration whether it would not be preferable to introduce the Madras Salt Act into Orissa as being better suited to the conditions of the maritime districts of which that province is composed. This suggestion is now under consideration.

14. It has also been suggested that the Madras Salt Department should be relieved of the administration of the Salt Department in Orissa, and that it should be made over to the officers of the Bengal Government, Salt and Excise being administered by the same staff of officers. But the Officiating Lieutenant-Governor, while admitting that there are some points in the proposal which merit attention, is not at present prepared to condemn the administration of the Madras officials or to recommend to the Government of India that they should be withdrawn from Orissa on the arguments which have hitherto been laid before him. The question is not without difficulty, and one aspect of it, namely, the gradual decrease of the salt industry in Orissa, is causing the Officiating Lieutenant-Governor uneasiness. A decrease in the home production of such an article as salt is not, *per se*, a desirable result, even if, through importations of foreign salt, it be accompanied by a reduction in the selling price of the article, while from the standpoint of the hardships caused to the classes whose hereditary occupation it is to make salt, such a decrease is unsatisfactory. Of course the Officiating Lieutenant-Governor has no intention of propping up a decaying industry by factitious methods; but he is very anxious that the decay should not be hastened or produced by any ill-directed administrative measures, and he



would therefore be glad if the attention the subject is now receiving had the effect of strengthening the local manufacture of salt subject to due safeguards throughout the province. Any arrangements that may be proposed in connection with the Preventive Establishments should proceed on the basis of conserving rather than of discouraging the indigenous descriptions of salt manufacture so far as this can be done without artificial means.

15. *The Sulkea Golahs.*—The bonding operations at the Sulkea Golahs received a check during the year, the quantity of salt bonded being 2,80,731 maunds less than in the previous year. The low rate of freight has, as mentioned above, nullified so far the inducements to bonding afforded by the recent improvements in the golahs, which have been carried out at considerable expense.

16. The thanks of the Officiating Lieutenant-Governor are due to the Board for their supervision of the Department, and Sir Antony McDonnell observes with satisfaction that Messrs. Savage and Bompas are again selected for special commendation by the Board for the excellent work done by them during 1892-93.

By order of the Lieutenant-Governor of Bengal,

J. A. BOURDILLON,

*Offg. Secretary to the Government of Bengal.*

RESOLUTION ON THE REPORT ON THE ADMINISTRATION OF THE  
STATIONERY DEPARTMENT FOR THE YEAR 1892-93.

FINANCIAL DEPARTMENT.—MISCELLANEOUS No. 299T.—F.

*Darjeeling, the 30th September 1893.*

RESOLUTION.

READ—

Letter No. 727B., dated the 25th August 1893, from the Board of Revenue, submitting the Report on the Administration of the Stationery Department for the year 1892-93.

The Stationery Department is one of those branches of the administration which in unobtrusive fashion discharges year by year duties of great value and importance to the State: it deals with property, the money value of which is very large, and it is hardly too much to say that inefficiency in its administration would incommode every officer employed in Upper India. The Superintendent is responsible for the supply of stationery to the offices under the Government of India as well as to those in the Provinces of Bengal, the North-Western Provinces and Oudh, the Panjab, the Central Provinces, Assam and Burma, and his office is the centre from whence are distributed the millions of printed forms required in Bengal and Assam, besides forms supplied under special orders to offices in other parts of the Empire. The present report, which has been submitted to Government with the observations of the Board of Revenue, refers to the administration of the Stationery Department as a whole; a separate report, dealing with its own stationery and forms, being subsequently forwarded to the Government of India and to each Local Government and Administration.

2. The value of the stocks, receipts, and issues of the year under review is compared below with the figures for 1891-92 :—

	1891-92.	1892-93.
	Rs.	Rs.
Value of stores at the beginning of the year ...	6,23,856	5,12,445
Add value of stores received and credited during the year ...	21,55,719	24,63,500
Total ...	27,79,575	29,75,945
Deduct value of stores issued ...	22,67,130	24,15,480
Value of balance in stock on 31st March ...	5,12,445	5,60,515

There was again an advance in the value both of the stores received and issued from the Stationery Office, and in that of the stores in stock at the end of the year. It is obviously undesirable to keep up a larger stock of stationery than is absolutely necessary, and during the past five years the balance in hand has been steadily diminishing. The increase now reported is attributed to the fact that a large quantity of expensive hand-made paper was imported before the use of local machine-made paper was sanctioned in its stead; the imported paper has for the most part been disposed of without loss.

3. The decline in the value of stores received from the India Office, which was observed in the previous year, received a check during the year under review. This increase (Rs. 2,06,332) is partly due to larger imports of drawing paper and materials received for the Public Works and Survey Departments, hand-made paper for the Registration Department and the High Court, and binding materials for the latter. It is also partly due to the fact that under the orders of Government expensive articles, such as copying presses, type-writers and so forth, are obtained through the Superintendent. Part of the increase, however, is due to the difference in the official rate of exchange in 1890-91 and 1891-92, since the percentage to cover freight and loss by exchange, added to the invoiced cost of English goods at 2s. the rupee, rose from 45 in 1891-92 to 55 in 1892-93. The value of country-made paper and other stores purchased locally also shows an increase of Rs. 85,136, the result of larger demands made by the printing presses in Bengal and Burma, and of larger indents from the Central Provinces, which Administration commenced for the first time to draw its full supplies from the Calcutta dépôt. Under "Issues" there was a net increase of Rs. 1,96,582 in the value of the stationery supplied to Local Governments and Administrations. Of this sum, Bengal is responsible for Rs. 76,772, the North-Western Provinces and Oudh for Rs. 30,199, Burma for Rs. 37,374, the Central Provinces for Rs. 56,953, and Assam for Rs. 1,970, the Panjab showing a decrease of Rs. 6,235. The advance in Bengal is due to the increased activity of the Survey and Settlement Departments during the year, a larger number of forms being required for the cadastral survey in Bihar and for the settlement operations in Chittagong and Orissa. On the other hand, there was a decrease of Rs. 12,040 in the value of stationery used by offices and departments under the Government of India.

4. After eliminating from the value of the total issues (Rs. 24,15,430) the cost of the items noted in the margin, aggregating Rs. 18,44,781, which comprise certain paper adjustments and the consumption of Government presses, the actual cost of stationery supplied to Government offices, including State Railways and local bodies, amounts to Rs. 5,70,649. Excluding the supplies to State Railways, Railway Mail, and Telegraph Departments, and certain petty items, but including those to local

	Rs.
Value of water-marked paper ...	1,43,985
Value of stores issued to printing presses for blank books, &c. ...	34,113
Value of stores transferred to Bombay and Madras ...	2,249
Value of unserviceable stores written off and sold ...	22,201
Value of deficiencies in stock-taking ...	1,521
Miscellaneous adjustments ...	1,040
Loss by revaluing the closing balance at the issue rates of the year ...	17,605
Value of supplies to presses ...	16,21,977
Total ...	18,44,781

bodies and other offices which pay for their stores, the value is shown at Rs. 4,46,556. This sum distributed among 3,457 indenting officers places the average cost of the stationery issued to each officer at Rs. 129 as against Rs. 115 in 1891-92. This calculation is apt to mislead, since the demands of the different officers necessarily vary very much, and the addition of the Secretariat and the Settlement Department of the Central Provinces, each of which counts in the calculation as one office, greatly raises the average. Some small advance is unavoidable year by year as work tends to increase and there is a constant endeavour to improve the manner of its execution; but the Lieutenant-Governor agrees with the Board in thinking that more might still be done by local officers to enforce economy and to prevent that waste and leakage which indisputably exist in some quarters.

5. The substitution of Indian-made paper for paper made in England underwent a further development during the year under review. The prices charged by the local mills for the better kinds of paper were formerly considered to be higher than the cost of similar articles procured from England;

but the local mills having reduced their rates, and the accuracy of the above conclusion having been questioned, it was decided at a Conference over which the Member of the Board of Revenue in charge of the Miscellaneous Department presided, that on the whole it would be more economical to obtain these papers locally. Another point besides cheapness in favour of country-made paper is the absence of adulteration in the materials used for its manufacture, and the Superintendent of Stationery points out that the cheaper kinds of European paper, the prices of which were quoted by the Secretary of State, in competition with the Indian-made article, have been condemned for office use in England. In 1887 only ordinary printing paper was purchased locally; now all paper required for the Government presses, as well as what are technically known as writing papers, are obtained from the local mills. In July 1892 orders were issued forbidding the issue of English-made writing paper of any kind to all indenting officers under the Government of Bengal without exception, save with the special sanction of Government, country-made paper being found quite good enough for all ordinary office business. These orders have, under the authority of the Government of India, since been extended to supplies to other Local Governments and Administrations, the Departments of the Supreme Government, and the officers subordinate thereto. The Lieutenant-Governor anticipates the best results from a frank adoption of this policy. With exchange so much against India, every rupee saved in the charges payable in England is an advantage to the Imperial finances; while an avowed willingness on the part of so large a customer as the Government to accept the locally manufactured article must stimulate competition, and cause the production of a better article at equal or less cost.

6. The income and expenditure of the Stationery Department proper amounted during the year to Rs. 1,14,876 and Rs. 95,068, against Rs. 98,734 and Rs. 84,815 in 1891-92. The improvement in receipts was due to the sale-proceeds of a quantity of coloured paper which had been lying in stock for more than three years. The increase in expenditure occurred mainly under "Establishment" (Rs. 990), due to periodical increments in salaries of clerks; under "Packing" (Rs. 3,209), due to the increased supply of stationery to the Central Provinces and the substitution of country-made for English paper, because while the latter was supplied in the cases in which it was received, paper locally made had to be packed for despatch; and under "Freight" (Rs. 9,483), due to larger shipments of stationery to Burma.

7. In addition to the Stationery Department, which, as explained above, supplies the whole of Upper India, no inconsiderable part of the duties of the Superintendent of Stationery is the receipt, storage and issue of printed forms, chiefly for Bengal and Assam. These are for the most part prepared at the Presidency Jail Press, and the magnitude of the work is proved by the following figures, which show the total receipts and issues of standard and special forms during the last two years:—

				FORMS—	
				Received.	Issued.
1891-92	...	...	...	16,688,566	87,895,207
1892-93	...	...	...	137,494,831	107,897,243
Increase in 1892-93				40,806,265	20,002,036

The increase of over 40 millions in the number of forms received from the Press is ascribed to some extent to the receipt of a large number of forms during the year under review, which ought properly to have been supplied in the previous year, and to the receipt in advance of several forms which were not due till the current year. Under "Issues" there was an increase of over 119 lakhs in special forms and of nearly 41 lakhs in forms required for survey, settlement, and land acquisition purposes. The total cost of printing the forms supplied by the Stationery Office, including the cost of paper, amounted during the year to Rs. 8,23,933,\* or more than a lakh of rupees in excess of the expenditure of the previous year. The details regarding the expenditure incurred in form-printing, which the Superintendent promises to furnish in the

\* Printing Paper ... .. Rs. 2,14,091  
... .. 6,09,842

Report on the Provincial Expenditure of the Stationery Department, are awaited. Meanwhile it is noteworthy that the average cost of forms per indenting office is nearly double that of stationery, and the Lieutenant-Governor desires that the Board will call the attention of all officers to the necessity of economy in this department just as much as in the expenditure of stationery. The number of forms is so large and the apparent value of each is so small that they are frequently regarded as things of no account. The supply of forms was much disorganized in 1890-91 by the printing and distribution of census forms, and also by a large demand for new High Court forms; but no such specially disturbing influences have been at work during the year under review, and it is satisfactory to learn that great progress has been made in working off the arrears in the supply of forms, regarding which several complaints had lately been preferred, and both the Stationery Office and the Press are now reported to be abreast of their work as far as annual indents are concerned. The Board again bring to notice the serious inconvenience caused by the introduction of new and revised forms at inopportune times, and the submission of an unreasonable number of supplementary indents. A Resolution was issued by the Board during the year on the latter subject, and the Lieutenant-Governor requests that they will not lose sight of the matter, but insist on their rules being complied with. There have been several complaints during the year of delay in the supply of forms, but the Board have taken steps to accelerate the supply of materials from the Stationery Office to the Press, and have introduced a monthly report to be submitted by the Superintendent of Government Printing, which will enable them to detect the cause of delay and apportion the blame for its occurrence.

8. The receipts and charges of the Form Branch of the Stationery Department amounted to Rs. 34,655 and Rs. 57,960, against Rs. 29,617 and Rs. 46,100 in the previous year. The increase in receipts is ascribed to the larger sales of saleable forms, and the advance in expenditure is a necessary consequence of the despatch of a larger number of forms and the rent of outside godowns to contain them.

9. The system of supplying newspapers and periodicals through the Calcutta Stationery Office appears to be working well, the publications being supplied with regularity and punctuality. The number of newspapers supplied rose from 2,045 in 1891-92 to 2,716 in 1892-93, of periodicals from 2,193 to 3,195, and of books from 21,266 to 27,012. The total payment for the newspapers, &c., amounted to Rs. 97,587, against Rs. 68,987 in 1891-92. The cost of supplying these publications to officers under the Government of Bengal amounted to Rs. 13,824 against Rs. 9,364. The Lieutenant-Governor also notices that a considerable advance in the employment of rubber stamps is implied in the increase of expenditure from Rs. 11,843 in 1891-92 to Rs. 14,838 in 1892-93.

10. The Lieutenant-Governor notices with satisfaction the favourable mention made by the Board of the work of Mr. Barnes, the Superintendent of Stationery. When the Department is provided with sufficient space by the building of the new Stamps and Stationery Office in Calcutta, now under construction, and when the establishment is strengthened, as has been proposed, His Honour has no doubt that the administration of the Department will be still further improved.

By order of the Lieutenant-Governor of Bengal,

J. A. BOURDILLON,

*Offg. Secretary to the Government of Bengal.*

## INVESTIGATIONS INTO SHIPPING CASUALTIES.

No. 2296 Marine.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

*Dated Calcutta, the 2nd October 1893.*

READ—

Marine Department Resolution No. 1 Marine, dated 3rd January 1893.

Letter from the Vice-Chairman of the Port Commissioners, No. 1483, dated the 27th July 1893.

**OBSERVATIONS.**—In the Resolution read above it was decided that the duties imposed by section 6 of Act V of 1883 upon a Magistrate or other officer appointed on that behalf by the Local Government shall, as regards the port of Calcutta, be performed by the Port Officer to whom the reports required by sub-section 2 shall be made. On the receipt of such a report it would be the duty of that officer to hold an informal enquiry, exercising the powers conferred on him by section 9 of Act VI of 1891, and to submit a report to Government in the Marine Department.

2. The Port Commissioners of Calcutta have, however, represented that the Harbour Masters being part of their establishment, it is desirable that enquiries in the case of casualties to ships when in charge of Harbour Masters, shall be conducted by the Deputy Conservator of the Port rather than by the Port Officer, as eventually the opinion of the former officer is necessarily taken when the matter is considered by the Commissioners. Under the present arrangements enquiries are held (1) by the Port Officer on behalf of Government under the orders of the 3rd January 1893, and (2) by the Deputy Conservator on behalf of the Port Commissioners under departmental rules.

**RESOLUTION.**—Having given due consideration to the representation of the Port Commissioners, the Lieutenant-Governor has decided to appoint the Deputy Conservator of the Port to be the officer under section 6 of Act V of 1883 to receive reports of casualties to vessels when in charge of Harbour Masters, and the following revised orders for the procedure to be adopted are hereby issued.

2. The duties imposed by section 6 of Act V of 1883 upon a Magistrate or other officer appointed in that behalf by the Local Government shall, as regards the port of Calcutta, except in the case of a casualty to a vessel in charge of a Harbour Master, be performed by the Port Officer to whom the reports required by sub-section 2 shall be made. In the case of vessels in charge of Harbour Masters, the duties imposed by section 6 of Act V of 1883 shall be performed by the Deputy Conservator of the Port of Calcutta, to whom all casualties to vessels in charge of Harbour Masters should be reported. When such a report is received, or when it comes to the Port Officer's or Deputy Conservator's knowledge that a casualty as described in section 6 (1c) has occurred, it shall be the duty of the Port Officer or Deputy Conservator, as the case may be, to hold an informal enquiry, exercising the powers conferred on him by section 9 of Act VI of 1891, and to submit a report to Government in the Marine Department. The Lieutenant-Governor reserves the right of directing, in any special case, that the preliminary enquiry regarding a casualty to a vessel in charge of a Harbour Master shall be held by an officer other than the Deputy Conservator.

3. In the case of vessels between Garden Reach and Budge-Budge, when there is a collision between a vessel in charge of a Harbour Master and a vessel in charge of a pilot, the enquiry will be held by the Port Officer.

4. When the Deputy Conservator, as the result of his enquiry into a casualty, considers a vessel unsafe, he shall at once give notice to the Port Officer, who is the detaining officer.

5. The greatest possible expedition should be used in making the enquiry and submitting the report. In conducting the enquiry the following remarks by the Advocate-General should be borne in mind:—

“Under Act V of 1883, section 6, it becomes the duty of the officer appointed in that behalf, upon receiving credible information of the happening of any of the occurrences

mentioned in that section, to hold the abovementioned preliminary investigation. Clause 4 of this section (Act VI of 1891, section 9) furnishes him with ample powers of doing so without being in any way trammelled by the laws of evidence or the rules of procedure. Such an investigation ought, in my opinion, to be held in every case falling within the purview of section 6, and should be of such a searching character as to render the report to be thereon drawn up and submitted to the Local Government such a full and sufficient statement of the whole case as to enable that Government to determine whether it is requisite or expedient to direct the abovementioned formal investigation, and the Deputy Legal Remembrancer to conduct it if directed."

6. The following instructions given by the Board of Trade, which are in force in England, appear to be equally applicable *mutatis mutandis* to enquiries made in this country, and form directions which may usefully be taken note of by the Port Officer or Deputy Conservator in the case of the enquiries which are now directed to be made:—

"He will observe that he may, if necessary, examine upon oath, but he will probably seldom find it necessary or desirable to do so.

"In all cases when there is any point which it is important to establish, or any question of fact in dispute or doubt, he will take the evidence in writing.

"In every case, when the enquiry is concluded, the officer will send a report to the Board of Trade containing the result of the enquiry, and such of the evidence as may be important.

"In all cases of casualties arising from avoidable causes, the report and the statement of the evidence bearing on the point should be full and complete."

7. The report will assume one of two forms—

- (1) It will be to the effect that no blame attaches to any one and no further enquiry is needed; or
- (2) It will state that a further formal enquiry is necessary; that blame *prima facie* attaches to some one, either Pilot, Master, Mate or Engineer of the ship, or Harbour Master of the Port, or that the circumstances attending the casualty point to some defect in the vessel.

In case (2) the Port Officer or Deputy Conservator will order the detention of such witnesses as are necessary for the proper elucidation of the facts.

8. If the Port Officer holds that *prima facie* blame attaches to a Pilot, he shall appoint a Departmental Court of Enquiry composed of two Pilots and a Master of a mercantile ship.

9. If (1) the person implicated by the Port Officer's report (*vide* paragraph 7, clause 2 above) is a Master, Mate, or Engineer of a ship, or (2), in case of a Pilot, if Government, on the receipt of the report of the Departmental Committee under paragraph 8, consider an enquiry under Act V of 1883 to be desirable, or (3) if the casualty is stated to be due to some defect in the ship, the Local Government will appoint the Chief Presidency Magistrate and two persons to be a Special Court to hold a formal investigation under section 7 of Act V of 1883, and will direct the Court—

- (1) if they find that a charge of incompetency or misconduct lies against a Pilot, to report at once to Government;
- (2) if they find that such a charge lies against Master, Mate, or Engineer, to proceed as directed in sections 9, 11, 12, &c., of Act V of 1883.

10. If the report of the Special Court implicates a Pilot, the Lieutenant-Governor will decide whether to proceed against him departmentally, or whether he shall be tried under Act XII of 1859. In the latter case the Chief Presidency Magistrate will be the Judge of the Court, and there will sit with him as Assessors two Merchants of Calcutta and a Pilot of not less than twenty years' service, to be selected from the lists prepared and kept in the manner prescribed by section 6 of the Act, and the Master of a merchant ship lying in the port of Calcutta.

11. If the report of the Deputy Conservator (paragraph 7) or that of the Port Officer in the case of an enquiry held under paragraph 3, implicates a Harbour Master, the Port Commissioners should, in the event of a formal

enquiry under Act V of 1883 not being ordered, report to Government the orders passed thereon. If an enquiry under Act V of 1883 is held, the judgment of the Court will be forwarded to the Port Commissioners for such further action as they may consider to be necessary.

12. In all formal investigations carried out under Act V of 1883, or under Act XII of 1859, the Deputy Legal Remembrancer, or other suitable officer to be appointed by Government for the occasion, will appear before the Court on behalf of Government.

ORDER.—Ordered (I) that a copy of this Resolution be forwarded to the Commissioners for the Port of Calcutta and to the Deputy Conservator for information and guidance.

Ordered (II) that a copy of this Resolution be forwarded to the Port Officer, Chief Presidency Magistrate, and the Legal Remembrancer, for information and guidance, and to the Judicial Department of this Government for information.

Ordered (III) that a copy of this Resolution be published in the *Calcutta Gazette* for general information.

By order of the Lieutenant-Governor of Bengal,

C. W. ODLING,

*Secy. to the Government of Bengal.*

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 30th September, 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL.</b>			
BURDWAN DIV.	1 Burdwan Sept. 30, '93	6.01	Heavy rain in early part of week. Prospects of <i>aman</i> rice very good. <i>Aus</i> rice being harvested; injured by recent heavy rain. Prices of common rice:— Srs. Burdwan ... 11 to 13 Kalna ... 9 to 13 Katwa ... 11½ Raniganj ... 12 } per rupee.
	Kalna ...	3.25	
	Katwa ...	3.24	
	Raniganj ...	3.14	
	2 Bankura „ 30, '93	2.85	Break in the rains. Harvesting of <i>aus</i> continues. <i>Aman</i> plants coming on well. Common rice selling at 13 seers 4 chitaks per rupee at Bankura and 12 seers 8 chitaks at Vishnupur.
	Vishnupur ...	4.91	
	3 Birbhum „ 30, '93	2.15	Fine weather prevails. Rice crop looks fine, and a good harvest is expected everywhere. Price of common rice 10 to 14½ seers per rupee.
	Rampur Hât ...	4.75	
	4 Midnapore „ 30, '93	4.81	Weather—cloudy and rainy at first; afterwards hot. Prospects continue good but the cyclone last week has probably done a good deal of damage in Contai. Prices of common rice:— Srs. Sadar ... 12 Contai ... 13 Tamluk ... 11 Ghatal ... 10 to 11 } per rupee.
	5 Hooghly „ 30, '93	0.95	Rain in early part of the week: fine weather and sunshine in latter part. <i>Aus</i> still being harvested. Jute being steeped. Sugarcane and <i>aman</i> doing well. Prospect in Khanakool (Jahanabad subdivision) bad, part of that thana being still under water. Fodder and water sufficient. Prices of common rice:— Srs. Sadar ... 11 Serampore ... 10 to 11½ Jahanabad ... 11 to 12½ } per rupee.
	Serampore ...	2.46	
	Jahanabad ...	7.91	
	6 Howrah „ 30, '93	0.35	Weather—getting warm. <i>Aman</i> paddy in the Ulubaria subdivision somewhat damaged. Condition of cattle good. Fodder and water-supply sufficient. Price of rice 10 seers per rupee.
	Ulubaria ...	2.54	
PRESIDENCY DIV.	7 24-Parganas „ 30, '93	0.47	Weather—seasonable. Prospects of crops fair in the north of the district, but poor in the southern part, especially in the thana of Bankipore. Transplantation of <i>aman</i> and harvesting of <i>aus</i> and jute nearly over. Prices of common rice:— Srs. c. Sadar ... 10 to 11 0 Barasat ... 11 0 Basilhat ... 9 18½ Diamond Harbour ... 10 0 } per rupee.
	8 Nadia „ 30, '93	2.23	Weather—hot and cool with occasional showers. Prospects of <i>aman</i> fair except in the Kushtia subdivision, where it is reported not favourable. <i>Kalai</i> and <i>mung</i> are being sown broadcast.
	Kushtia ...	4.76	
	Meherpur ...	4.87	
	Chuadanga ...	2.78	
	9 Khulna „ 30, '93	3.24	Heavy rain at beginning of week: finer towards the end. <i>Aman</i> transplantation nearly finished. Prospects good except in very low lands. Supply of fodder and water sufficient.
	Bagerhat ...	3.54	
	Satkhira ...	3.46	
	10 Jessore „ 30, '93	0.98	Weather—cloudy and rainy at the beginning of the week. Harvesting of <i>aus</i> and jute nearly finished. Prospects of <i>aman</i> fair. Lands being prepared for winter crops. Rivers going down slowly. Plenty of fodder and water for cattle. Prices steady.
	Jhenida ...	4.17	
	Magura ...	3.81	
	Narail ...	2.93	
	Bangaon ...	1.15	
	11 Murshidabad „ 30, '93	3.90	Weather—hot and cloudy at times with occasional rain. The rain has done some good to <i>aman</i> plants. Cutting of jute finished. Mulberry still being cut. Sugarcane doing well. Fodder sufficient for cattle. Common rice sells at 11½ seers per rupee. No cattle-disease reported except a few cases of small-pox from Jangipur.



No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL—concl'd.			
CHITTAGONG DIV.	12 Chittagong	...	Report not received.
	13 Noakhali Sept. 30, '93	2.80	Weather—seasonable. Reaping of early <i>aman</i> has commenced in the islands. Transplantation of late <i>aman</i> still going on in the main land. Prospects excellent. Fodder is available in sufficient quantities, and cattle-disease is abating. Prices of common rice:— <div style="text-align: right;"> Srs. 0.  9 4 } per rupee.  8 8 } </div> Noakhali ... .. Feni ... ..
	14 Tippera „ 30, '93	2.91	Weather—seasonable. Occasional foggy mornings. Harvesting of jute and transplantation of <i>aman</i> going on briskly. <i>Aman</i> seedlings selling at more than 20 times its ordinary price. Labour in great request. Prospects of <i>aman</i> have improved greatly, and the late rain has done much good to it. Common rice selling at 8 to 9 seers per rupee. Fodder not yet sufficient. Water gone down about 5 feet.
	15 Chittagong Hill Tracts „ 29, '93	0.91	Weather—seasonable. Harvesting of <i>aus</i> paddy in <i>jums</i> over. Very little quantity of vegetables available in the bazar. Condition of cattle generally good. Common rice selling at 8 seers 14 chitaks per rupee.
	16 Dacca „ 30, '93	2.90	Weather—hot with occasional rain. Harvesting of jute nearly finished. <i>Rawa</i> and <i>shail</i> paddy being sown. Prospects of <i>aman</i> fair, but it is being damaged by a kind of insect in some places in Srinagar thana in the Munshiganj subdivision. Common rice selling at from 7 to 9 seers per rupee. Fodder not sufficiently available. No cattle-disease.
Dacca DIV.	17 Faridpur „ 30, '93	1.43	Weather—at first stormy: now fine. Prospects of crops unchanged. Water subsiding. Rice sells at 9 to 10 seers per rupee, imports being plentiful. Fodder-supply improving. Still some cattle-disease at Falong.
	Goalundo „	2.72	
	Madaripur „	2.15	
RAJSHAHI DIV.	18 B. ckerungunge „ 30, '93	3.25	Weather—seasonable. State and prospects of crops fair, except in the flooded tract. Common rice selling at from 8 to 9 seers per rupee. Fodder and water sufficient.
	19 Mymensingh „ 30, '93	5.88	Weather—cloudy and rainy. State of standing crops very fair. Common rice selling at 8 to 9 seers per rupee. Condition of cattle good except in the Netrakona subdivision. Fodder available except in Kishorganj, where the supply is insufficient.
	20 Dinajpur „ 30, '93	8.64	Weather—hot and cloudy with occasional showers. Heavy rain in the north of the district. Prospects favourable. Prices of rice both at Sadar and Thakurgaon stationary. <i>Bhadoi</i> rice selling at Sadar from 12 to 13 seers per rupee. Condition of cattle good. Fodder and drinking water sufficient.
	Thakurgaon „	13.07	
	21 Rajshahi „ 30, '93	1.82	Weather—hot; sunshine at intervals. Prospects generally good. <i>Bhadoi</i> has given a fair outturn. Fodder and water-supply ample. No cattle-disease. Rice selling at from 9 to 11 seers per rupee.
	Nator „	2.69	
	Naugaon „	5.49	
	22 Rangpur „ 30, '93	12.49	Heavy rain during the week. Transplanting of <i>aman</i> is now finished. Prospects very favourable. Jute steeping in progress; 16 annas outturn may be expected. Average price of rice about 10 seers per rupee.
	Kurigaon „	8.79	
	Gaibanda „	3.76	
	Nilphamari „	9.46	
	23 Bogra „ 30, '93	6.75	Weather—unsettled. Transplantation of <i>aman</i> finished. Prospects good. Common rice 9 to 10 seers per rupee. Fodder and water sufficient.
	Sherpur „	4.16	
	Naekhila „	5.75	Weather—seasonable. Partially cloudy and rainy. Prospects of <i>aman</i> rather improved by the late showers. Price of common rice at Sirajganj Rs. 4-12 per maund and at Pabna 9½ seers per rupee. Fodder and water-supply sufficient.
	24 Pabna „ 30, '93	3.00	
	25 Darjeeling „ 30, '93	14.54	Weather—cloudy and wet at beginning of week. Bright towards the close. In the hills:— <i>Bhadoi</i> paddy and <i>bhutta</i> being harvested. <i>Haimanti</i> paddy, <i>phaphur</i> , <i>kalai</i> and <i>bara murua</i> progressing favourably. <i>Chota murua</i> has been harvested. In the Terai:—Jute steeping continues. <i>Bhadoi</i> harvested. Prospects of <i>aghani</i> favourable. Prices of coarse rice:— <div style="text-align: right;"> Srs.  9 } per rupee.  10 } </div> Hills ... .. Terai ... ..
	Siliguri „	9.09	
	26 Jalpaiguri „ 30, '93	11.75	Weather—seasonable. Prospects of <i>haimanti</i> paddy good. Washing of jute continues. Common rice sells at Sadar at 11 seers per rupee. Fodder and water-supply sufficient. No cattle-disease reported.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.	
BIHAR.				
BEHARPUR DIV.	27 Monghyr Sept. 30, '93	6.14	Weather—very stormy with excessive rain. <i>Bhadoi</i> harvest finished. Prospects of winter rice good. <i>Kurthi</i> and sugarcane look promising. Lands being ploughed for <i>rabi</i> and indigo. Cattle-disease at Ballia, Kharakpur, Nawadih, and Sheikhura. Ample fodder and water. Prices of common rice:—	
	Begusarai ...	6.13		
	Jamui ...	3.34		
				Srs.
	Sadar ...	...	11 to 15	} per rupee.
	Begusarai ...	...	12 to 13	
	Jamui ...	...	12	
	28 Bhagalpur .. 70	5.78	The late rain has done some harm to <i>kurthi</i> and <i>marua</i> in the north, but prospects of winter rice are excellent.	
	Banka ...	3.02		
	Madhipura ...	5.48		
PATNA DIVISION.	29 Purnea .. 30, '93	10.99	Heavy rain during the first part of the week. This rain has done good to the standing crops. Prospects excellent everywhere. Fodder and water sufficient. No cattle-disease. Price of rice stationary.	
	Kishanganj ..	11.33		
	Araria ...	14.09		
	30 Malda .. 30, '93	3.49	Weather—cloudy and damp in the first part of the week; latterly fine. Extraordinarily heavy rain fell in the north of the district. Winter rice coming into ear. Sowing of <i>kalai</i> on low lands has been stopped on account of rising of the river. Price of ordinary rice varies from 11 to 17 seers per rupee. Fodder and water ample.	
	31 Sonthal Parganas .. 30, '93	3.23		Rain during the early part of the week. Weather now hot in the day and cool at night. Prospects of paddy crop continue favourable. <i>Kalai</i> damaged to some extent in the Rynahal subdivision owing to rise of the Ganges. Supply of fodder insufficient at Sahabganj. Cattle-disease still reported from the Godda subdivision. Price of rice stationary.
	Deoghur ...	1.56		
	Godda ...	6.91		
	Jamtara ...	1.96		
	Pakur ...	8.03		
	Rajmahal ...	11.22		
32 Patna .. 30, '93	3.08	Weather—rainy during the first part of the week, but clear and cool during the latter part. The recent heavy rain has probably ensured a bumper rice crop. Tobacco doing well. Early spring garden crops being sown. Prices of common rice:—		
Barh ...	4.19			
Bihar ...	2.39			
Dinapore ...	3.52	Srs.		
Sadar ...	...	15	} per rupee.	
Barh ...	...	13		
Bihar ...	...	15		
Dinapore ...	...	13		
33 Gaya .. 30, '93	1.90	Weather—fair and growing cooler. Prospects of paddy crop favourable. Weeding going on. Prices of rice:—		
Aurangabad ...	4.74			
Jahanabad ...	2.78			
Nawada ...	3.71	Srs.		
Gaya ...	...	13	} per rupee.	
Aurangabad ...	...	14½		
Jahanabad ...	...	12½		
Nawada ...	...	16		
34 Shahabad .. 30, '93	5.15	Fine clear weather with light westerly winds. The young paddy has been damaged to some extent in the south by excessive rainfall. On the whole, however, prospects are excellent.		
Buxor ...	1.36			
Blasbhu ...	4.80			
Sasaram ...	3.17			
35 Darbhanga .. 30, '93	6.19	Weather—rainy during first four days of the week; fair in the latter part. The heavy falls of rain this week have benefited the rice crop. A break for some days is wanted to facilitate the preparation of lands for <i>rabi</i> and the planting of tobacco and <i>alua</i> . Prices of Indian-corn and <i>marua</i> have fallen. Common rice selling at 14½ seers per rupee. Fodder for cattle sufficient.		
Madhubani ...	3.98			
Samastipur ...	8.04			
36 Muzaffarpur .. 30, '93	4.15	Weather—rainy, cloudy at times, and hot. Retransplantation of paddy nearly finished in the Sitamarhi subdivision. The recent rain has done much good to standing crops. Harvesting of <i>bhadoi</i> crops almost over. No cattle-disease. Fodder and water for cattle sufficient. Prices almost stationary.		
Hajipur ...	4.05			
Sitamarhi ...	7.09			

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
BIHAR—concl'd.			
PATNA DIVISION—concl'd.	37 Saran Sept. 30, '93	5.17	Weather—stormy and then fine. State and prospects of crops excellent. Price of common rice.  Srs. c. Chapra ... 15 0 Siwan ... 14 12 Gopalganj ... 18 0 } per rupee Fodder and water plentiful.
	Siwan ...	4.45	
	Gopalganj ...	5.00	
38 Champaran „ 30, '93	9.83	Weather—cloudy and rainy throughout the week except to-day (30th) when the sky looks clear. The flood again appeared in this week owing to the rise of the Sikkhona. Portion of the Secowlie bridge has been washed away. The water is draining off quickly. At present the extent of damage cannot be correctly estimated, but it appears it was not much. Prices stationary. Fodder and water sufficient.	
ORISSA.			
ORISSA DIVN.	39 Cuttack „ 30, '93	1.20	Weather—days warm, nights cool. <i>Satika biali</i> being gathered. <i>Bara biali</i> ripening. Weeding of <i>sarad</i> in progress. Fodder sufficient. Prices of common rice:—  Srs. c. Srs. c. Sadar ... 10 8 to 13 2 Jajpur ... 13 2 to 17 0 Kendrapara ... 13 2 to 22 0 Banki ... 15 12 } per rupee.
	40 Puri „ 28, '93	2.44	
	Khurda ...	5.61	
41 Balasore „ 30, '93	3.57	Weather—fine; occasional but not daily showers. A break of two days at a time. Fine weather twice this week has done much good. Transplantation finished; 12 annas rice crop may be expected. Prices stationary.	
CHOTA NAGPUR.			
South-West Frontier Agency.			
CHOTA NAGPUR DIVN.	42 Hazaribagh Sept. 30, '93	3.06	Weather—seasonable. Paddy and sugarcane doing well. Miscellaneous crops fairly good. Lands being ploughed for <i>rabi</i> sowings. Water and fodder abundant. Cattle-disease reported from Hunterganj.  Weather—seasonable. Reaping of <i>gora</i> paddy nearly finished. Prospect of winter rice continues good. Common rice selling at 15 seers per rupee. Fodder and water sufficient.  Heavy rain and wind. It cleared off on the 26th. The rain has been general, and no more is now required for the <i>aghar</i> crop which should be a full one. <i>Bhadai</i> paddy is also a full crop, and cotton, <i>til</i> , sugarcane, and <i>kurthi</i> all promise very well. Ploughing and sowing of <i>rabi</i> going on. Rice selling at from 11 to 16½ seers per rupee. Fodder and water-supply ample.  Weather—seasonable. Cold weather setting in. Standing crops doing excellently. Price of rice falling. Cattle-disease reported from Bahragora in Dhalbhum.  Weather—rainy in early part of week; now settled, fine. The bright dry weather will do much good to all standing crops, the prospects of which are so far good. Prices stationary.
	Giridi ...	1.59	
	43 Lohardaga „ 30, '93	1.59	
	44 Palamau „ 29, '93	3.91	
	45 Singhbhum „ 30, '93	1.15	
	46 Manbhum „ 30, '93	1.20	
Gobindpur ...	3.35		

Published for general information.

CALCUTTA; REVENUE DEPT.,

The 2nd October, 1893.

M. FINUCANE,

Offg. Secy. to the Govt. of Bengal.

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.											
			AIR PRESSURE.			WIND.		TEMPERATURE.						
			Mean barometric height, S. A. W. reduced to 32°.	Mean reduced to sea-level and constant gravity, 32° lat. 45°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.
ORISSA.	Puri	Puri	29.750	29.714	—	SWly	322	91.7	30th Sept.	78.6	28th Sept.	88.6	80.3	84.4
		Gopalpore	29.768	29.720	—0.017	SW & NW	353	90.7	29th	75.1	30th	87.8	70.8	82.4
		False Point	29.762	29.725	—0.032	SSW	336	91.0	28th	74.6	24th	89.2*	78.1*	84.0*
	Outtack	Outtack	29.086	29.708	—0.040	Wly		92.7	28th	76.8	28 to 30	89.4	78.2	83.8
SOUTH-WEST BENGAL.	Balasore	Balasore	29.703	29.705	—0.051	S	127	92.4	28th	73.8	29 & 30	88.2	76.6	82.4
	Midnapore	Midnapore	29.020	29.714	—0.055	Variable	94	92.3	29th	74.1	30th	88.3	76.4	82.3
	24 Parganas	Calcutta	29.751	29.718	—0.044	Wly	127	89.6	29 & 30	76.2	24th	86.8	78.3	82.6
		Saugor Island	29.747	29.716	—0.041	SWly	408	89.7	30th	78.5	30th	87.3	80.6	84.0
SOUTH-WEST BENGAL.	Howrah													
	Hooghly													
	Nadia	Krishnagar	29.717	29.712	—0.044	Variable	163	89.8	29th	73.2	24th	87.4	76.3	81.9
	Khulna	Jessore	29.747	29.727	—0.048	SWly	115	91.0	29th	76.4	24 & 25	87.0	77.5	82.3
SOUTH-WEST BENGAL.	Burdwan	Burdwan	29.674	29.719	—0.043	SW & NW	118*	90.1	29th	75.2	24 & 25	86.9	77.0	82.0
		Raniganj	29.419	29.705	—0.053	NW	72	92.7	29th	73.4	30th	89.7	75.0	82.4
	Bankura	Bankura	29.430	29.680	—0.057	Calm	132	91.1	29th	74.1	30th	86.7	75.5	81.2
	Birbhum	Berhampore	29.698	29.714	—0.057	Wly	114	89.1	30th	74.8	29th	86.0	76.7	81.3
NORTH BENGAL.	Fahna	Sirajganj	29.728	29.724	—0.049	Sly	112	88.6	29th	74.7	25th	85.7	76.0	80.8
	Bogra	Bogra	29.705*	29.719	—0.029	SE	108	88.2	29 & 30	74.2	24 & 27 to 30	85.8	74.6	80.2
	Rajshahi	Rampur Bhojla	29.687	29.707	—0.052	Variable	191	88.1	29 & 30	74.6	29th	85.3	76.2	80.8
	Malda	Malda	29.699	29.700	—	Wly	96	88.6	30th	73.5	28th	85.1	75.6	80.4
NORTH BENGAL.	Dinajpur	Dinajpur	29.658	29.735	—0.061	Variable	121	88.1	29th	72.2	24th	83.0	74.6	78.8
	Rangpur	Rangpur	29.655	29.733	—0.061	E	96	88.3	30th	71.7	25th	82.4	73.6	78.0
	Jalpaiguri	Jalpaiguri	29.600	29.741	—0.046	NEly	86	87.9	30th	70.1	26 & 27	81.0	72.2	7.66
	Kuch Bihar	Kuch Bihar												
NORTH BENGAL.	Darjeeling	Darjeeling	22.901	—	—0.063	Ely	92	63.1	30th	49.6	26th	57.8	51.5	54.7
	Sikkim	Gnatong		?	?	ESE		52.4	29th	55.6	28th	47.2	37.3	43.3
	Chittagong	Chittagong	29.740	29.775	—0.033	SEly		88.2	29th	74.1	24th	85.5	75.2	80.4
	Chittagong Hill Tracts	Demagiri						Observations not received.						
EAST BENGAL.	Backergunge	Barisal	29.771	29.729	—0.031	Calm	108	91.3	28th Sept.	74.4	24th	87.1	77.1	82.1
	Noakhali	Noakhali	29.750	29.740	—0.041	SE		90.5	29th	74.8	24th	86.6	76.4	81.0
	Faridpur	Faridpur	29.753	29.747	—0.033	S	117	87.0	29th	72.9	28th	84.0	76.9	80.9
	Dacca	Dacca	29.762	29.732	—0.048	S	175	90.1	30th	76.7	28th	80.7	77.3	82.0
NORTH BENGAL.	Tippera	Comilla	29.770	29.754	—0.037	Variable	128	89.4	28 to 30	73.8	24th	86.7	75.6	81.2
	Mymensingh	Mymensingh	29.733	29.744	—0.047	SEly	129	85.7	28 & 29	74.6	24 to 28	83.6	76.6	79.6
	Purnea	Purnea	29.625	29.705	—0.060	Variable	93	88.2	30th	71.2	26th	83.1	73.8	78.5
	Bhagalpur	Bhagalpur	29.571	29.695	—0.068	Calm	54	89.2	30th	79.5	27th	85.5	74.1	79.8
NORTH BENGAL.	Darbhanga	Darbhanga	29.664	29.686	—0.091	Calm	190	88.9	30th	70.7	27th	82.4	74.1	78.3
	Muzaffarpur	Muzaffarpur	29.543	29.676	—	Variable	213	88.7	29 & 30	71.2	27th	83.3	73.9	78.6
	Champaran	Motihari	29.474	29.656	—0.104	ENE & NWly	142	88.2	29th	70.8	26 & 27	82.3	72.6	77.4
	Waran	Chapra	29.29	29.655	—0.082	SWly	225	90.3	29 & 30	72.1	26 & 27	84.0	74.5	79.2
SOUTH BENGAL.	Shahabad	Dehri	29.362	29.667	—0.091	SW	333	89.8	30th	72.0	25 & 30	80.1*	71.7*	80.4*
	Buxar	Buxar	29.434	29.640	—0.108	Wly	230	89.5	30th	71.8	25 & 26	84.3	73.9	79.1
	Arrah	Arrah	29.504	29.647	—0.053	Wly	162	90.4	29 & 30	73.0	25 & 27	84.9	75.1	79.9
	Gaya	Gaya	29.347	29.677	—0.079	Ely	175	90.9	29th	72.8	27th	85.8	74.4	80.1
SOUTH BENGAL.	Patna	Bankipore	29.529	29.665	—0.090	Wly	228	89.5	29 & 30	71.3	27th	84.1	74.5	79.3
	Monghyr	Monghyr												
	Sonthal Parganas	Naya Dumka	29.255	29.701	—0.055	WNW	102	89.6	29 & 30	73.8	28th	85.8	74.8	80.3
	Hazaribagh	Hazaribagh	29.732	29.689	—0.075	NW	295	85.2	30th	66.8	27th	81.4	68.4	74.9
NORTH BENGAL.	Lohardaga	Ranchi	29.615	29.682	—0.069	SW	239	84.0	28 to 30	67.9	30th	80.6	69.3	75.0
	Palamu	Daltonganj												
	Singbhum	Chaibassa	29.576	29.684	—0.048	Calm	29	91.4	28th	70.2	30th	86.7	73.3	80.0
	Manbhum	Manbhum												
ASAM.	Sibsagar	Sibsagar	29.523	29.813	—0.013	SW & NE		88.6	30th	71.9	28th	83.8	73.8	78.8
	Goalpara	Ilahuri	29.482	29.762	—0.037	NE	224	85.7	29th	73.3	27th	79.6	74.4	77.0
	Cachar	Silchar	29.25	29.781	—0.027	Calm		90.5	29th	73.3	24 to 29 & 30.	87.5	74.5	80.9

\* Mean of 6 days.

**Explanation.—Summary.**—The normal means of air pressure and temperature are the arithmetical average or means of the readings during the same period. The humidity of the atmosphere is expressed at percentage, saturated air being presented by 100. A clear sky is denoted by 0 and an overcast sky by 101. The rainfall the normal mean are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional stations in the district sending in returns divided by the number of stations. A rainy day is one of

for the week ending Saturday, the 30th of September 1893.

DISTRICT OBSERVATIONS.															DISTRICT.
					OF WEEK.				RAINFALL.						
Variation from normal mean.	Mean 8 A.M. temperature.	Average humidity at 5 A.M.	Average cloud amount at 5 A.M.	Rainfall of week at observing station.	Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Since 1st of month.			Since 16th May 1893.			
									Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.	
-	84.0	79	2.6	0.28		8.33		2.39		16.99			50.55		Puri.
-1.8	91.1	84	0.7	0.06											
+0.8	85.7	84	3.1	2.63											Cuttack.
0	82.0	78	3.0	1.25		7.59		2.24		15.48			50.23		
+0.3	81.0	80	2.6	2.81		8.92		2.27		17.53			53.70		Balasore.
-0.4	82.1	82	3.1	3.78		6.09		2.31		13.87			52.35		
+0.3	82.8	83	3.0	0.47	1.32	0.98	2.14	2.51	10.77	14.86	-4.09	00.13	53.86	+6.27	Midnapore.
+0.3	83.5	87	6.4	0.73											
					1.20	0.07	1.50	2.21	13.75	13.27	-0.021	60.85	50.38	+9.47	24 Parganas.
					2.21	0.10	2.33	2.21	13.34	12.88	+0.46	61.74	50.53	+11.21	
-1.0	82.3	82	4.9	2.23	3.08	6.07	3.10	2.38	9.52	13.40	-3.88	55.10	48.00	+6.10	Howrah.
-1.3	82.1	83	6.3	0.98	2.34	7.23	3.00	2.71	11.44	14.92	-3.48	67.84	55.80	+11.85	Hooghly.
-2.0	80.2	83	4.0	0.01	1.85	0.46	3.10	2.60	10.11	13.10	-2.99	60.83	49.79	+10.04	Nadia.
-0.4	79.2	87	2.9	2.06	3.52	5.71	2.75	2.18	10.13	12.00	-1.87	53.51	46.70	+5.81	Khulna.
-3.0	79.4	86	3.6	2.85	2.86	6.22	2.75	2.28	11.03	13.25	-1.32	59.87	52.43	+7.45	Jessore.
-2.1	79.8	90	5.4	3.90	2.54	7.74	2.47	2.91	11.39	10.08	-4.60	50.93	53.95	-3.02	
-2.1	79.8	90	5.4	3.90	2.95	7.52	2.47	2.71	8.25	16.09	-7.84		50.78		Burdwan.
-1.3	80.2	91	5.1	2.03	2.02	7.70	2.00	2.80	6.81	16.06	-7.55	67.28	58.09	+14.19	Bankura.
-1.8	80.1	82	6.6	5.80	3.73	8.00	3.60	2.94	9.63	15.16	-5.86	58.33	56.08	+1.87	Birbhum.
-1.2	81.4	87	4.7	1.94	2.10	9.00	3.67	2.78	8.88	16.11	-9.26	60.31	55.08	+5.23	Murshidabad.
-	79.8	90	4.9	3.49	7.98	8.51	4.00	2.33	15.76	17.64	-1.88	55.63	55.57	-0.06	Fabna.
-3.6	79.1	90	7.9	6.69	8.18	8.40	4.00	2.25	15.13	17.91	-2.78	65.74	59.12	+6.62	Bogra.
-3.4	77.6	93	6.9	12.40	8.66	10.00	5.00	2.76	14.20	19.08	-5.82	77.48	74.44	+3.04	Rajshahi.
-3.5	75.0	93	8.1	11.16	11.75	19.11	4.00	3.80	24.05	32.76	-14.70	115.46	125.23	-9.77	Malda.
				11.01	14.56	4.25	3.17	3.17	16.34	30.97	-12.63	106.27	112.35	-6.08	Dinajpur.
-4.1	85.4	96	9.4	16.08	11.93	18.94	5.00	3.94	25.66	28.68	-3.02	119.42	135.53	-16.11	Rangpur.
-	83.0	84	5.9	12.19											Jalpaiguri.
-1.1	79.8	92	6.4	1.07	2.30	10.31	3.50	2.75	10.41	21.87	-11.06	129.10	109.94	+19.16	Kooch Bihur.
					0.02	0.96	Nil	3.15	11.16	19.98	-8.80	98.46	80.54	+17.92	Darjeeling.
+0.7	81.0	90	7.1	2.98	4.10	9.43	3.75	3.16	14.00	18.73	-4.73	81.22	74.98	+6.25	Chittagong.
-0.3	81.4	91	3.0	2.80	2.46	12.60	3.00	3.11	12.10	26.67	-14.57	110.16	105.96	+4.20	Chittagong Hill
-1.3	81.3	89	5.9	1.43	1.86	6.58	3.33	2.54		13.69			76.16		Trache.
-1.3	80.4	90	7.1	2.37	2.40	7.50	3.35	2.18	8.12	16.21	-8.09	61.50	60.31	+1.19	Backergunge.
-1.3	80.1	90	6.7	2.14	3.77	8.73	4.50	2.85	10.80	17.97	-7.17	70.41	68.63	+1.78	Noakhali.
-2.4	79.3	92	7.0	5.89	4.30	10.31	4.00	3.37	9.66	19.89	-1.24	83.45	69.34	+14.11	Paridpur.
-4.3	77.1	93	6.1	10.85	12.09	11.08	4.07	2.33	20.90	22.30	-1.40	76.71	68.34	+8.40	Dacca.
-2.8	79.4	89	6.0	5.78		7.14		2.00		14.22			46.35		Tippera.
-4.7	70.7	91	5.6	6.19	6.18	6.80	4.33	1.95	11.71	13.91	-2.20		46.13		Mymensingh.
-	77.0	89	5.7	4.12	4.40	0.83	3.67	1.79	8.81	13.21	-4.40	41.76	43.13	-1.37	Purana.
-4.3	76.1	86	5.7	9.83		7.23		1.98		13.47			46.23		Bhagalpur.
-3.4	78.8	84	6.0	5.17		5.81		1.71		11.64			41.17		Darbhanga.
-2.4	80.2	86	3.1	2.25											Muzaffarpur.
-3.7	78.2	84	5.3	4.25		5.45		1.81		11.37			40.01		Champaran.
-2.7	77.3	86	4.3	5.16											Saran.
-4.0	77.2	89	5.7	1.90	3.00	5.05	2.75	1.65	9.84	10.56	-0.72		41.19		Shahabad.
-5.2	79.0	88	5.1	3.08	2.61	5.35	3.50	1.91		10.77			40.51		Gaya.
					3.78	5.09	3.67	2.08	11.85	11.96	-0.13	47.56	43.06	+4.50	Patna.
-1.6	79.7	88	2.6	3.23		7.81		2.39		16.28			52.10		Monghyr.
-3.1	74.0	84	4.3	3.89		6.94		2.09		14.33			51.57		Sonthal Parganas.
-1.0	74.1	82	3.7	1.59		7.03		2.78		11.84			52.78		Hazaribagh.
						5.67		1.80		12.05			42.94		Lohardaga.
-1.4	78.3	81	4.6	1.15	1.15	6.20	3.00	2.25	9.98	13.18	-3.26	53.54	51.79	+1.75	Palamau.
-3.0	77.0	95	7.1	0.79		6.27		1.88		12.32			47.51		Singbhum.
-3.8	75.9	94	6.3	4.59											Manbhum.
-1.6	78.3	90	8.0	1.68											Assam.

for the last ten years. The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater. The numbers denoting cloud amount represents the part of the sky covered the whole sky being denoted by 10. Under the head District observations for the period in question during the past ten years. The means of the district are the numerical average of the rainfall returned received in it which at least a tenth of an inch fall.









**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSER-  
VATIONS TAKEN IN ASSAM, FOR THE WEEK ENDING 8 A.M.,  
SATURDAY, THE 30TH OF SEPTEMBER 1893.**

As stated at the end of the summary of the weather of the previous week, the depression which had crossed the Orissa coast moved in a north-westerly direction, the centre never being far from the western boundary of the province. On the 24th, the first day of the present week, the area of lowest pressure extended over Chota Nagpur, and stormy weather was general in all districts of the province. Rainfall was not very heavy, but it was well distributed, varying from one to four inches. On the following day the path of the centre of disturbance changed to north-east, a direction which brought it into the west of Bihar. Defect at Buxar was more than  $\cdot 4$  inch, and at Arrah more than  $\cdot 3$  inch, so that the depth had not diminished more than a tenth of an inch during the two days that had elapsed since the centre crossed the coast. Unusually stormy winds were reported from the Bihar stations, and heavy rain fell in the northern districts. In Orissa rainfall had entirely ceased, and it was becoming partial in South-West Bengal and Chota Nagpur. Continuing its north-easterly course, the depression broke up on reaching at the Himalayas, and on the following day very little trace of its existence remained. As is usual in such cases, very heavy rain fell along the hills and in the neighbouring plains. The heaviest falls of rain reported on the 26th occurred in the Darjeeling Hills, Purnea and Champaran. After the depression ceased to exist weather improved rapidly. General moderate rain continued in the northern districts on the 27th, but on the 28th it was confined to North Bengal and the adjacent part of East Bengal, where a slight residual depression caused light scattered showers.

As pressure rose rapidly after the passage of the depression, and at the same time a fall commencing in the east, spread gradually towards the west, the distribution became very uniform, and calm weather prevailed. The fall of pressure continued till the 28th, and a shallow depression, which appeared over Burma, became more distinct on the 29th in consequence of the brisk increase in Bengal. Barometric readings on the 30th were lowest in the south of Burma and gradually increased towards the north-west, where they were nearly a tenth of an inch higher. Following this distribution light north-westerly winds became general over the province and the north of the Bay, and fine, dry, almost cloudless weather, prevailed.

*Pressure.*—During the early part of the week large changes of pressure occurred in the western districts till the depression broke up on the 26th. On the 24th there was a rise in Orissa varying from  $\cdot 1$  to  $\cdot 35$  inch, and a fall in Chota Nagpur of about  $\cdot 15$  inch. On the 25th the rapid rise continued in Orissa and extended to Chota Nagpur, while in the west of Bihar the fall was  $\cdot 25$  inch. On the following day the depression had almost disappeared, the rise in the west of Bihar being very little under  $\cdot 4$  inch. On the 27th and 28th a fall prevailed except in the north-western districts, where the rise continued, but during the last two days of the week a general rise again set in and the distribution became practically normal. Means for the week are below the normal everywhere by amounts varying from  $\cdot 02$  inch in Orissa to  $\cdot 1$  inch in the west of Bihar.

*Temperature.*—While the stormy weather prevailed, temperature, especially during the day, was very low, defect at times being nearly  $10^{\circ}$ . On the 24th mean defect was everywhere between  $3^{\circ}$  and  $5^{\circ}$ , on the 25th it varied from half a degree in the south of Orissa to  $8^{\circ}$  in parts of Bihar, and on the 26th, in Bihar and part of North Bengal, it averaged  $8^{\circ}$ . As the sky began to clear after the filling up of the depression, the defect, though still large in Bihar on the 27th, began to diminish, and on the 28th it was generally under  $3^{\circ}$ . On the 29th and 30th the difference from the normal was small, there being a small excess in Lower Bengal and a small defect in the northern districts. The means for the week are all below the normal, and defect in the larger divisions varies from a fifth of a degree in Orissa to nearly  $4^{\circ}$  in North Bihar.

*Rainfall.*—General rain fell on the first day of the week in all districts. On the second it had almost entirely stopped in Orissa, and on the following day in South-West Bengal and Chota Nagpur. During these days very heavy rain fell in North Bengal and Bihar. The mean falls for the week are above the normal except in Orissa, where the moderately heavy rain on the 24th gave an average for the week of about  $\cdot 8$  inch. In East Bengal the fall is slightly above the normal, and in South-West Bengal and Chota Nagpur by between a half and one inch; but in North Bihar, with an average fall of  $6\cdot 74$ , there is excess of more than 4 inches, and in North Bengal nearly as much. In South Bihar excess is nearly 2 inches.

The following places received more than 10 inches during the week:—Chanchal and Gajol in the Malda district; Churaman and Thakurgaon in Dinajpur; Rangpur, Jalpaiguri, Alipur Duar and Fallacotta; Kuch Bihar, Mickliganj and Matabhanga; Darjeeling, Kalimpong, Kurseong and Pedong; Kishanganj, Araria and Purnea. The falls at many other stations in the northern districts were very little under 10 inches.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 30th of September 1893:—

METEOROLOGICAL DIVISIONS	TEMPERATURE.							RAINFALL.								
	Highest observed during week.	Lowest observed during week.	Averages for week			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month	Since 16th May 1893.		
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average	Variation.	Average number in week	Normal average number in week.	Variation.				
Orissa	92.7	73.8	88.6	78.0	83.4	-0.2	0.65	1.85	-1.00	1.10	2.29	-1.11	15.20	10.23	53.15	44.84
South-West Bengal	92.7	72.2	87.4	77.0	82.2	0.0	2.56	1.84	+0.72	2.85	2.48	+0.37	11.21	9.15	57.07	46.46
North Bengal	88.6	70.1	84.0	74.7	79.4	-0.5	7.03	3.17	+3.40	4.12	2.70	+1.42	13.66	14.74	72.94	64.17
East Bengal	91.3	72.0	85.7	76.3	81.0	-1.0	2.91	2.70	+0.18	3.50	2.86	+0.64	10.25	12.34	78.07	67.45
North Bihar	90.3	70.9	83.4	73.8	78.6	-1.9	6.74	2.62	+4.12	5.17	1.90	+2.27	13.75	10.00	62.10	43.80
South Bihar	90.9	71.2	85.2	74.6	79.9	-1.5	3.58	1.05	+1.38	3.07	1.07	+1.10	9.80	8.15	45.15	30.58
Chota Nagpur	91.4	81.4	82.0	70.3	76.0	-2.0	2.22	1.70	+0.52	2.77	3.17	+0.40	14.50	8.88	57.72	45.34
Assam	90.5	71.3	83.6	74.3	78.9	2.6										

\* Data regarding not included.

METEOROLOGICAL OFFICE, BENGAL,

C LITTLE,

The 3rd October 1893.

Offy Meteorological Reporter to the Govt. of Bengal.

### Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office Chowringhee, from 24th to 30th September 1893

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32 Fahr.	TEMPERATURE						HYGROMETRY			Rainfall past 24 hours
			Daily mean	Maximum	Range	Minimum	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893		Inches.							Inches.			Inches.
Sept mber	24th	29.676	81.5	86.4	9.8	76.6	80.9	79.3	.981	78.5	94	0.49
"	25th	7.34	83.4	89.5	10.2	78.3	84.6	80.5	.987	78.8	83	0.17
"	26th	7.81	84.3	88.2	7.9	50.3	84.6	81.5	1.085	80.3	87	
"	27th	7.74	85.6	91.0	11.9	79.1	87.6	81.0	.970	78.8	74	
"	28th	7.46	85.4	92.0	13.2	78.9	88.6	82.5	1.030	80.1	77	
"	29th	7.93	84.6	91.0	12.9	78.1	88.1	79.0	.870	75.0	66	
"	30th	8.37	83.9	91.0	14.2	76.8	87.6	81.0	.923	76.8	71	

The mean 10 A.M. pressure of the seven days ... .. Inches. 29.763

The mean temperature of the seven days ... .. 84.1

The extreme variation of temperature ... .. 15.4

The maximum temperature ... .. 92.0

The mean 10 A.M. relative humidity of the seven days ... .. % 79

The total fall of rain from 24th to 30th September 1893 ... .. Inch. 0.66

The daily mean temperatures are the crude means of maximum and minimum temperatures.

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA,  
The 2nd September 1893.

Results of the Meteorological Observations taken at the Alipore Observatory from  
24th to 30th September 1893.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine	Mean pressure barometer at 52 Fahr	TEMPERATURE				HYGROMETRY				WIND.		Miles recorded.	Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity	Prevailing direction.				
		°		Inches	°	°	°	°	°	Inches	°	%			Inches		
Sept	24th	135.8	0.7	29.617	80.4	84.5	7.8	76.7	78.6	0.957	77.9	92	SSE and SE by S	204	0.22	Chiefly cloudy, o, g, d, p.	
"	25th	148.6	7.1	29.677	82.8	86.4	8.6	78.2	80.0	0.991	79.0	85	S and SSW	212	Nil	Partially cloudy, o.	
"	26th	132.4	Nil	29.721	82.6	86.0	5.4	80.6	80.3	1.005	79.4	90	SSW and W	114	"	Cloudy, o	
"	27th	146.5	9.9	29.703	83.3	88.9	10.0	79.8	79.4	0.951	77.7	84	W, WNW and calm	77	"	Partially cloudy, a.	
"	28th	146.9	9.6	29.700	83.6	89.6	10.1	79.5	79.1	0.943	77.4	83	WSW and WNW	59	"	Partially cloudy, a.	
"	29th	147.2	9.4	29.740	83.1	89.5	11.4	77.7	78.3	0.906	76.2	81	WNW and calm	54	"	Partially cloudy, a.	
"	30th	145.5	10.0	29.770	83.2	89.2	12.0	77.2	77.2	0.854	74.8	75	NNW and calm	70	"	Partially cloudy, a.	

The mean pressure of the seven days	...	...	...	Inches.
The average pressure of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	29.703
The total number of hours of bright sunshine	...	...	...	Hours.
The maximum possible number of hours of sunshine	...	...	...	47.0
The mean temperature of the seven days	...	...	...	82.7
The average temperature of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	83.1
The extreme variation of temperature	...	...	...	12.9
The maximum temperature	...	...	...	89.6
The highest velocity of the wind in one hour	...	...	...	Miles
The highest pressure of wind on one square foot	...	...	...	20
The mean relative humidity	...	...	...	lbs.
The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	?
The total fall of rain from 24th to 30th September 1893	...	...	...	%
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	85
The total fall from 1st January to 30th September 1893	...	...	...	Inches.
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	0.82
The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.	...	...	...	1.76
The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.	...	...	...	77.86
The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.	...	...	...	58.82
The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.	...	...	...	
The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.	...	...	...	
The mouth of the rain-gauge is one foot above the ground.	...	...	...	
o, overcast; g, gloomy; d, drizzling rain; p, passing temporary showers; a, dew.	...	...	...	



*Vital Statistics of Towns in Bengal with a population of 20,000 and over during the month of August 1893.*

[illegible]

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,  
H. J. DYSON, *Surgeon-Captl, F.R.C.S.*,  
*Offg. Sanitary Commissioner for Bengal.*  
The 29th September 1893.

*Supplementary Vital Statistics of Districts and of Towns in Bengal for July 1893 received too late for publication with the figures of that month on the 2nd September 1893.*

Divisions.	Districts.	Population under registration.	BIRTHS.		DEATHS.												AVERAGE OF CORRECTED MONTHLY OR PREVIOUS FIVE YEARS.				
			Number registered.	Ratio per 1,000 of population per annum.	CHOLERA.			SMALL-POX.		FEVER.		DYSENTERY AND DIARRHOEA.		INJURY.	OTHER CAUSES.		TOTAL OF ALL CAUSES.		Ratio per 1,000 of population per annum.	Number registered.	Ratio per 1,000 of population per annum.
					Number registered.	Ratio per 1,000 of population per annum.	Number registered.	Ratio per 1,000 of population per annum.	Number registered.	Ratio per 1,000 of population per annum.	Number registered.	Ratio per 1,000 of population per annum.	Number registered.		Ratio per 1,000 of population per annum.	Number registered.	Ratio per 1,000 of population per annum.	Number registered.				Ratio per 1,000 of population per annum.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
Presidency	24-Parganas*	1,822,073	4,485	28.44	20	.12	13	.07	2,512	15.84	106	.60	164	.96	383	2.64	8,198	20.28	2,945	14.16	
	Total for the Province	70,383,653	181,338	31.66	1,539	.24	1,213	.12	90,723	16.92	3,037	.48	4,516	.72	21,523	3.72	132,540	22.66	127,688	21.72	
	Average of corresponding month of previous five years.	.....	.....	Not available, as birth registration in rural areas was only introduced from 1892.	18,646	2.76	957	.12	83,928	14.24	4,697	.60	1,201	.60	17,579	3.00	127,338	21.72	.....	.....	
	Difference + or -	.....	.....	.....	-15,107	-2.32	+226	Equal	+15,794	+2.64	-1,070	-.12	+3.5	+1.2	+4,814	+7.2	+5,002	+8.4	.....	.....	
	Towns.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Districts.	1 Cossimbazar-Chitpur	31,423	41	16.80	2	.72	.....	.....	57	14.04	6	.24	.....	.....	3	1.08	48	18.24	60	22.50	
	2 Bankura	32,865	17	6.12	2	.72	.....	.....	56	13.08	7	.24	.....	.....	3	1.08	46	17.64	50	19.72	
	3 Barasat	34,278	56	19.46	8	3.76	1	.24	77	9.72	5	.16	2	.60	17	6.58	61	21.24	57	19.92	
	4 South Suburban	69,042	127	27.84	2	.24	.....	.....	77	13.20	12	.24	2	.60	14	2.52	107	18.36	53	9.22	
	5 Khordha or South Barrack-pore.	35,647	31	10.32	1	.24	.....	.....	51	10.52	1	.24	2	.60	2	.60	45	16.12	35	11.76	
24-Parganas	6 Nalhati	29,734	64	25.80	.....	.....	.....	.....	24	9.24	4	.16	1	.36	5	3.12	36	14.52	47	18.12	
	7 Narayanganj or North Barrack-pore.	30,980	46	26.28	.....	.....	.....	.....	30	17.04	2	.108	.....	.....	13	10.20	50	28.56	42	24.00	
	TOTAL	254,559	385	18.12	15	.60	9	.36	282	12.24	37	1.68	7	.24	65	3.00	385	18.60	354	15.24	
	Total of all towns with a population of 50,000 and over.	1,619,273	3,315	24.00	382	2.62	25	.12	2,138	15.48	423	3.00	108	.72	943	6.84	3,594	29.04	3,388	25.92	
	Average of corresponding month of previous five years.	.....	.....	Complete average figures of past five years are not available.	846	6.12	42	.24	1,312	9.72	377	2.64	78	.48	885	6.36	3,583	25.92	.....	.....	
Difference + or -	.....	.....	.....	.....	-154	-3.60	-17	-.12	+754	+5.76	+45	+3.6	+10	+2.4	+8	+4.8	+423	+3.12	.....	.....	

\* The mortuary return of the 24-Parganas district for July 1893 was not received till the 2nd October 1893.

OFFICE OF SANT. COMM. FOR BENGAL,  
The 2nd October 1893.

H. J. DYSON, Surgn.-Capt., F.R.C.S.,  
Offg. Sanitary Commissioner for Bengal.



## CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 30th September 1893,  
as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 30TH SEPTEMBER 1893.			WEEK ENDING SATURDAY, THE 1ST OCTOBER 1893.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ... ..	544	86,740	915	205	54,775	857
Jute ... ..	176	92,450	1,376	186	29,345	483
Firewood ... ..	78	32,750	493	150	55,285	782
Other articles ... ..	980	2,04,538	3,184	720	1,46,785	2,173
Total ... ..	1,778	4,16,478	5,967	1,211	2,86,190	4,295

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

*Approximate Return of Traffic for week ended 23rd September 1893, on 1,610½ miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchan- dise.	Total.
Total traffic for the week ...	305,165	Rs. A. P. 2,99,147 13 0	Mds. S. 24,53,751 20	Rs. A. P. 5,79,004 15 0	Rs. A. P. 13,882 10 0	Rs. A. P. 8,02,985 6 0	76,401	100,813½	177,363½
Or per mile of railway ...	...	185 12 0	...	360 1 3	8 9 11	554 7 2	...	...	...
For previous 11½ weeks of half- year ...	3,152,586	33,30,814 9 0	3,45,31,900 10	53,29,806 5 0	1,56,463 12 0	88,26,064 10 0	852,916½	1,030,409½	1,903,366½
Total for 12½ weeks ...	3,458,051	36,38,062 6 0	2,70,85,651 30	59,09,711 4 0	1,70,346 6 0	97,19,020 0 0	929,407½	1,161,229½	2,080,630
COMPARISON.									
Total for corresponding week of previous year ...	277,494½	2,96,029 1 1	22,85,360 10	5,12,313 5 11	15,026 4 3	8,23,968 11 3	75,844	96,201	171,045
Per mile of railway correspond- ing week of previous year ...	...	184 3 0	...	318 1 9	9 5 3	511 10 0	...	...	...
Total for corresponding 12½ weeks of previous year ...	3,162,409½	30,24,179 12 0	2,72,73,407 10	59,26,961 6 10	1,93,979 7 11	91,45,120 0 0	909,285	1,118,718	2,028,003

## TARKESSUR BRANCH RAILWAY.

*Approximate Return of Traffic for week ended 23rd September 1893, on 22½ miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchan- dise.	Total.
Total traffic for the week ...	17,350	Rs. A. P. 4,301 5 0	Mds. S. 7,520 30	Rs. A. P. 296 13 6	Rs. A. P. 18 0 0	Rs. A. P. 4,676 2 0	883	85	968
Or per mile of railway ...	...	190 0 3	...	13 5 5	0 12 11	210 2 7	...	...	...
For previous 11½ weeks of half- year ...	186,677	43,221 4 0	11,00,114 0	13,168 11 0	1137 0 0	48,327 0 0	10,045	825	10,870
Total for 12½ weeks ...	204,027	47,522 9 0	1,07,934 30	3,465 9 0	155 0 0	53,213 2 0	10,928	910	11,839
COMPARISON.									
Total for corresponding week of previous year ...	18,438½	4,743 10 1	6,404 0	277 12 0	5 0 0	5,026 6 1	893	75	968
Per mile of railway correspond- ing week of previous year ...	...	213 3 2	...	12 7 9	0 2 7	225 14 6	...	...	...
Total for corresponding 12½ weeks of previous year ...	223,954½	54,456 15 2	70,241 20	2,706 14 0	68 7 0	57,241 4 2	11,246	744	11,990

\* Added number of passengers 1,178 and Rs. 225  
+ Deducted mounds 1,844 and added " 12 on account of difference between the approximate and audited figures for the week ended 19th August 1893.  
+ Added " 44



## DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for week ended 23rd September 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	*17,831	*12,894 15 0	42,141 10	8,003 3 0	34 0 0	31,932 1 0	6,615½	2,971	9,586½
Or per mile of railway ...	.....	86 1 5	.....	40 9 4	0 3 5	135 14 2	.....	.....	.....
For previous 11½ weeks of half-year ...	†224,230	†1,51,630 13 0	†5,35,048 0	†70,333 7 0	†547 0 0	†2,29,319 4 0	69,375	30,537	99,912
Total for 12½ weeks ...	242,061	1,65,531 12 0	5,77,189 10	84,338 9 0	381 0 0	2,50,251 5 0	74,990½	33,508	108,498½
COMPARISON.									
Total for corresponding week of previous year ...	13,974½	10,861 12 11	35,001 10	6,770 13 0	47 10 6	17,670 4 5	6,173	2,167	8,330
Per mile of railway corresponding week of previous year ...	.....	67 3 9	.....	41 15 2	0 4 9	109 7 8	.....	.....	.....
Total for corresponding 12½ weeks of previous year ...	207,807	1,44,529 11 8	4,43,827 30	75,828 10 6	501 11 3	2,20,860 1 5	73,804	29,980	103,784

\* The increase is partly due to running of two special trains, and partly to heavier booking of 3rd class passengers at Delhi and Umballa Cantonment.

† Added number of passengers 539 and Rs. 280

‡ Do. maunds 1,940 and .. 05½ on account of difference between the approximate and audited figures for the week ended 19th August 1893.

§ Do.

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K.-D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for the week ended 23rd September 1893, on 778 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	159,540	74,210 0 0	10,66,680 0	2,26,230 0 0	15,000 0 0	3,15,440 0 0	38,000	39,460	66,460
Or per mile of railway ...	205	95 0 0	1,371 0	291 0 0	*1 0 0	*387 0 0	.....	.....	.....
For previous 11 weeks of half-year ...	†1,620,440	7,61,233 0 0	82,40,303 0	16,08,430 0 0	1,64,448 0 0	23,36,171 0 0	315,673	322,205	637,878
Total for 12 weeks ...	1,980,000	8,35,443 0 0	93,07,245 0	18,34,720 0 0	1,79,448 0 0	28,49,611 0 0	343,673	360,655	704,328
COMPARISON.									
Total for corresponding week of previous year ...	159,253	85,638 0 0	7,39,173 0	1,08,912 0 0	16,320 0 0	3,00,870 0 0	26,600	42,030	68,630
Per mile of railway corresponding period of previous year ...	205	110 0 0	1,029 0	525 0 0	*1 0 0	*387 0 0	.....	.....	.....
Total to corresponding date of previous year ...	1,849,100	7,50,414 0 0	83,44,886 0	19,72,925 0 0	1,86,494 0 0	29,15,833 0 0	327,307	436,088	763,395

\* Excluding steamer earnings

† Audited up to week ending 5th August 1893.

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for the week ended 23rd September 1893, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	32,870	9,540 0 0	69,610 0	6,160 0 0	30 0 0	15,730 0 0	3,929	1,743	5,672
Or per mile of railway ...	263	77 0 0	557 0	49 0 0	.....	126 0 0	.....	.....	.....
For previous 11 weeks of half-year ...	364,325	1,11,963 0 0	6,03,300 0	48,922 0 0	1,190 0 0	1,62,075 0 0	41,144	23,311	64,455
Total for 12 weeks ...	397,195	1,21,503 0 0	6,72,570 0	55,082 0 0	1,220 0 0	1,77,805 0 0	45,073	24,054	69,127
COMPARISON.									
Total for corresponding week of previous year ...	20,630	12,410 0 0	69,494 0	6,325 0 0	340 0 0	10,075 0 0	3,540	2,530	6,068
Per mile of railway corresponding week of previous year ...	237	99 0 0	556 0	51 0 0	3 0 0	153 0 0	.....	.....	.....
Total to corresponding date of previous year ...	362,361	1,13,070 0 0	6,48,020 0	50,517 0 0	1,023 0 0	1,72,419 0 0	44,891	26,008	71,799

\* Audited up to week ending 5th August 1893.

## DACCA STATE RAILWAY.

*Approximate Return of Traffic for the week ended 23rd September 1893, on 86 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	17,140	5,840 0 0	52,386 0	3,720 0 0	60 0 0	9,720 0 0	2,487	937	3,424
Or per mile of railway ...	199	68 0 0	613 0	43 0 0	1 0 0	113 0 0	.....	.....	.....
For previous 51 weeks of half-year* ...	180,763	58,202 0 0	2,08,716 0	16,108 0 0	1,687 0 0	76,905 0 0	27,703	8,610	36,313
Total for 12 weeks ...	203,903	64,142 0 0	2,61,396 0	19,826 0 0	1,747 0 0	85,715 0 0	30,283	9,616	39,899
COMPARISON.									
Total for corresponding week of previous year ...	18,364	6,668 0 0	26,462 0	2,000 0 0	202 0 0	8,960 0 0	2,546	737	3,283
Per mile of railway corresponding week of previous year ...	214	78 0 0	308 0	24 0 0	2 0 0	104 0 0	.....	.....	.....
Total to corresponding date of previous year ...	189,660	63,264 0 0	2,11,414 0	16,391 0 0	2,370 0 0	81,941 0 0	31,505	8,376	39,881

\* Audited up to 5th August 1893.

## BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE THERUT STATE RAILWAY.)

*Approximate return of traffic for the week ending 23rd September 1893, on 756 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs.	Mds.	Rs.	Rs.	Rs.			
Total traffic for the week on 756 miles open ...	91,700	24,010	2,50,190	31,190	9,250	74,450	17,206	11,864	29,169
Or per mile of railway ...	121.30	44.99	330.04	41.26	12.23	98.48	...	...	...
For previous 51 weeks of half-year* ...	902,165	3,75,431	23,57,733	3,10,544	1,04,300	7,06,215	145,536	107,650	313,186
Total for 121 weeks ...	1,093,865	4,09,141	26,07,923	3,47,774	1,13,450	8,70,675	162,742	119,604	342,346
COMPARISON.									
Total for corresponding week of previous year on 756 miles open ...	89,026	31,990	2,37,687	32,308	11,754	79,052	14,025	16,340	30,370
Per mile of corresponding week of previous year ...	117.92	46.22	313.08	42.91	15.57	104.70	...	...	...
Total to corresponding date of previous year ...	1,026,078	3,78,838	30,80,351	3,91,110	1,00,436	8,70,384	160,505	106,168	352,713

\* Includes audited figures up to 12th August 1893.

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

						Rs. A. P.
Approximate earnings for the week ending 16th September 1893 ...	...	...	...	...	...	10,293 0 0
Corresponding period of 1892 ...	...	...	...	...	...	11,686 0 0
Decrease ...	...	...	...	...	...	1,393 0 0
Receipts per mile for the week ending 16th September 1893 ...	...	...	...	...	...	201 13 2
Corresponding period of 1892 ...	...	...	...	...	...	229 2 4
Decrease ...	...	...	...	...	...	27 5 2
Receipts from 1st July to 16th September 1893 ...	...	...	...	...	...	1,18,766 0 0
Corresponding period of 1892 ...	...	...	...	...	...	1,16,965 0 0
Increase ...	...	...	...	...	...	1,801 0 0



# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, OCTOBER 11, 1893.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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### FIRST FORECAST OF THE BHADOI CROPS IN BENGAL, 1893.

The following is published for general information.

REVENUE DEPT.,  
The 3rd October, 1893.

M. FINUCANE,  
Offg. Secy. to the Govt. of Bengal,

*First Forecast of the Bhadoi crops in Bengal, 1893 (to the end of August).*

[The district returns appended to this note include for the first time a forecast of the *bhadoi* crops in Angul and the Khondmals.]

1. *Explanatory.*—An attempt has been made to exhibit in these returns the area and outturn of each principal *bhadoi* crop grown in each subdivision in Bengal. The estimates of areas under the different crops are, however, little better than guesses. It will be seen that the total area cropped in the *bhadoi* season (exclusive of the area under winter rice) has been estimated at about 16 million acres out of the total estimated cultivated area in these Provinces, which is shown as 55 million acres. The most important *bhadoi* crops are *bhadoi* paddy, Indian-corn and millets; these occupy about two-thirds of the total area under *bhadoi* crops; next in point of importance are jute and indigo. Of the total area under *bhadoi* food-crops, *bhadoi* paddy occupies about 70 per cent., and maize and millets about 30 per

cent. *Bhadoi* or *aus* paddy predominates in Bengal and Orissa, where very little maize and millets are grown, while in Bihar and Chota Nagpur maize and millets are grown on large areas.

2. *Character of the season.*—The present season has been characterized by abnormally heavy rainfall in every part of these Provinces, and by destructive floods in East Bengal and North Bihar. The earlier months of the year, namely, from January to April, were unusually wet, and although the frequent and abundant showers which fell during this period were favourable on the whole to the preliminary operations of cultivation, they prevented much of the low-lying areas from being brought under cultivation. During May and June, when the sowing and weeding operations were in progress, the weather was unfavourable. Except in a few districts of North Bengal and North Bihar, the rainfall during these months was exceedingly heavy; the growth of the young crops was checked in consequence, while in some parts the crops in low-lying lands suffered from accumulation of water. In July, except in Orissa and South-West Bengal, the rainfall was above the normal. During August, the rainfall was generally short of the normal, but during this month and the early part of September many of the districts in East Bengal, and parts of Darbhanga, Muzaffarpur, and Champaran in North Bihar, were visited by destructive floods. The present season much resembles that of 1890, when the *bhadoi* crops were largely destroyed by heavy rain and floods.

3. *Area sown.*—The total area sown with *bhadoi* crops this year is estimated at 15,609,429 acres, against 15,940,478 acres sown last year. Taking, therefore, these Provinces as a whole, the area sown does not seem to be much below that of last year. There are, however, several districts and sub-divisions where large proportions of the usual *bhadoi* areas could not be sown on account of excessive rain, or were destroyed later on by floods. The localities so adversely affected are shown in a statement (Appendix II) appended to this note.

4. *Character of the crops.*—The *bhadoi* food-crops, including paddy, maize, and millets, have been more or less damaged by excessive rainfall in almost every district in Bengal, and in some places also by floods. Only a few

districts and sub-divisions\* have reported either a full or more than a full crop. A statement (Appendix III) is annexed to this note, showing the districts or sub-divisions in which the

food-crops have suffered to the extent of 8 annas and upwards. Taking Bengal as a whole, the outturn of the food-crops may be estimated at about  $\frac{1}{3}$ ths of an average outturn. Except in Orissa and parts of Northern and Western Bengal the crop is on the whole a much poorer crop than that of last year, which was estimated as a full average crop of 16 annas.

Separate reports have been already published about the jute crop of this season, and it is thought unnecessary to refer to this crop again.

B. C. BASU,

*Assistant to the Director of the Department  
of Land Records and Agriculture, Bengal.*

COUNTERSIGNED.

W. C. MACPHERSON,

*Offg. Director of the Dept. of Land Records  
and Agriculture, Bengal.*

*The 24th September 1893.*

\* Bankura, Birbhum, Sadar (Hooghly),  
Banshat (24-Pargannas), Ranaghat  
(Nadia), Sadar (Murshidabad, Pimpur),  
Sadar (Rajshahi), Nilphamari  
(Rangpur), Siliguri (Darjeeling), Jamalpur  
(Mymensingh), Gopalganj (Saran),  
Bhagalpur, Purnea, Malda, and Banki  
(Cuttack).

APPENDIX I.  
Preliminary forecast of Bhadoi crops, to end of August 1893.

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop	Approximate normal area under each Bhadoi crop in acres.	Approximate area under each of the last year's Bhadoi crops in acres.	Estimated area under each of this year's Bhadoi crops in acres.	Taking 16 annas to represent the average output, how many annas represented output in last year?	Taking 16 annas to represent the average output, how many annas will represent this year's output?	Remarks by the District Officers.	Remarks by the Department of Land Revenue and Agriculture, Bengal.
Burdwan	Sadar	704,560	685,500	Bhadoi paddy ... Jute ... Hemp ... All Bhadoi crops	84,480 2,400 670 738	72,768 1,620 372 610	84,480 2,400 450 500	Annas. 14 12 12 10 10 12	Annas. 14 12 12 10 10 12	Owing to the sufficient rainfall this year, a fair outturn of Bhadoi crop is expected.	The figures returned for area under Jute for several districts do not agree with those given in the late forecasts published by this Department. As it is not clear in all cases whether Collectors rely on later information or not their figures submitted for the purposes of this return have been left without alteration.
	Total	714,840	695,500		84,480	76,800	87,880	8	8	Expected outturn was 16 annas, but about 25 per cent. of the crop sown late was submerged too early for reaping by excessive rainfall.	In the final report on Bhadoi crops of 1892, the area under Jute in Kalna was shown as 1,400 acres. The Collector is requested to report in the final Bhadoi crop report whether such a large area as 10,000 acres was sown in Jute this year.
	Kalna	276,480	221,000	Bhadoi paddy ... Jute ... Indigo ...	64,000 10,000 4,000	64,000 10,000 4,000	64,000 10,000 4,000	14 14 16	8 8	In the last year's return no area under Jute was shown in this forecast for Kalna, but this year 10,000 acres have been shown.	
Total		276,480	224,000	All Bhadoi crops	78,000	79,000	79,000	13	9½		

1	2	3	4	5	6	7	8	9	10	11	12
DISTRICT.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each <i>bhadol</i> crop in acres.	Approximate area under each of the last year's <i>bhadol</i> crops in acres.	Estimated area under each of this year's <i>bhadol</i> crops in acres.	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn?	Taking 10 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Burdwan— concd.	Katwa ...	227,286	157,440	Bhadol paddy Date pulse Jute Hemp Indigo Til (sengelle) All <i>bhadol</i> crops	27,450 44 820 160 180 40 21,900	29,485 45 929 100 130 40 21,900	20,450 45 840 160 180 40 21,900	Annas 12	Annas 14	The rainfall during the sowing season improved the prospect of <i>bhadol</i> this year; but the rainfall was rather too heavy for a good outturn.	
	Total	227,286	157,440								
	Rangaj	429,440	234,790	Bhadol paddy Indian-corn (maize) Bhadol pulse Jute Cotton Hemp Til (sengelle) Miscellaneous (not included in the above) All <i>bhadol</i> crops	9,500 3,000 4,320 200 200 2,000 5,000 1,390 19,210	1,000 3,300 4,320 120 140 1,500 3,000 678 14,800	9,500 3,000 4,320 180 170 1,500 3,800 1,000 15,370	Annas 6 10 10 10 12 12 12 12 12	Annas 12 12 12 12 12 12 12 12 12	The rainfall having commenced in time, increased area over that cultivated last year will be seen. The estimate now framed is below the average, which is due to excessive rainfall.	
	Total	429,440	234,790								
	Whole district	1,296,681	1,296,681	Bhadol paddy Indian-corn (maize) Bhadol pulse Jute Cotton Hemp	171,660 3,000 7,400 11,176 200 2,780	139,548 3,000 8,980 10,832 144 2,000	171,660 3,000 8,980 10,832 170 2,400	Annas 10 10 11 12 12 12	Annas 12 12 11 12 12 11		

Bankura ...	District Total ...	1,726,050	1,293,800	Indigo ... Til (gingelly) ... Miscellaneous (not in- cluded in the above.)	4,160 5,764 1,360	4,160 4,250 676	4,160 4,160 1,000	14 10 10	11 13 12	The very early and timely rainfall was in every way favourable, and if anything, the ansoor bhadoi will exceed the average. The area also has increased.
	Sadar ...	1,229,440	428,800	Bhadai paddy ... Indian-corn (maize) ... Jute ... Cotton ... Indigo ... Til (gingelly) ... All bhadoi crops ...	24,300 200 700 1,000 2,600 600	24,300 200 700 1,000 2,600 600	24,300 200 700 1,000 2,600 600	10 10 10 10 10 10	18	
	Total ...	1,229,440	428,800	All bhadoi crops ...	24,300	24,300	24,300	10	18	
Vishnupur ...	District Total ...	448,000	214,000	Bhadai paddy ... Indian-corn (maize) ... Bhadai pulse ... Cotton ... Hemp ... Indigo ... Til (gingelly) ... Miscellaneous (not in- cluded in the above.)	20,000 100 5,000 1,000 500 300 200 100	20,000 100 5,000 1,000 500 300 200 100	20,000 100 5,000 1,000 500 300 200 100	7 7 7 7 7 7 7 7	16 16 16 16 16 16 16 16	
	Sadar ...	448,000	214,000	All bhadoi crops ...	20,000	20,000	20,000	7	16	
	Total ...	448,000	214,000	All bhadoi crops ...	20,000	20,000	20,000	7	16	
Whole district...	District Total ...	1,677,440	642,800	Bhadai paddy ... Indian-corn (maize) ... Bhadai pulse ... Cotton ... Hemp ... Indigo ... Til (gingelly) ... Miscellaneous (not in- cluded in the above.)	44,300 300 5,000 2,000 300 2,900 800 150	44,300 300 5,000 2,000 300 2,900 800 150	44,300 300 5,000 2,000 300 2,900 800 150	84 84 84 84 84 84 84 84	16 16 16 16 16 16 16 16	
	Sadar ...	1,677,440	642,800	All bhadoi crops ...	44,300	44,300	44,300	84	16	
	Total ...	1,677,440	642,800	All bhadoi crops ...	44,300	44,300	44,300	84	16	

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 16 annas to represent the average outturn, how many annas represented outturn last year?	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Beagal.
Burdham	Sadar	703,120	280,000	Bhadoi paddy ... Indian-corn (maize) ... Cotton ... Hemp ... Til (gingelly) ...	95,000 1,200 1,200 600 900	95,000 1,200 1,200 600 900	104,500 1,380 600 900 1,200	10 15	15	* The favourable season and prospects and high prevailing price of grain has induced the rays to break up new lands and bring high lands lying fallow under cultivation this year.	
	Total	703,120	280,000	All bhadoi crops	95,000	95,000	104,500	10	15		
	Kampur Hat	412,160	160,000	Bhadoi paddy ... Indian-corn (maize) ... Cotton ... Hemp ... Til (gingelly) ...	55,000 800 400 600 600	55,000 800 400 600 600	63,500 900 400 600 600	16	18		
	Total	412,160	160,000	All bhadoi crops	55,000	55,000	63,500	16	18		
	Whole district	1,121,280	450,000	Bhadoi paddy ... Indian-corn (maize) ... Cotton ... Hemp ... Til (gingelly) ...	150,000 2,000 1,000 1,500 1,500	150,000 2,000 1,000 1,500 1,500	167,000 2,380 1,400 1,500 2,000	16	18		
	District Total	1,121,280	450,000	All bhadoi crops	150,000	150,000	167,000	16	18		



Midnapore	Sadar	2,061,280	1,229,100	Bhadol paddy	85,400	75,100	8	10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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1	2	3	4	5	6	7	8	9	10	11	12
DISTRICT.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 10 annas to represent the average outturn, how many annas represented outturn last year?	Taking 10 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Midnapore— <i>contd.</i>	Chatal (2)	231,240	146,750	Bhadoi paddy ...	14,100	14,100	14,100	Annas. 10	Annas. 14		
				Jute ...	100	.....	100	.....	12		
				Indigo ...	600	.....	600	.....	12		
	Total ...	231,240	146,500	All bhadoi crops ...	14,800	14,700	14,800	13	12		
	Whole district ...	3,252,480	2,111,500	Bhadoi paddy ...		93,600	100,595	10	10	The slight difference between this and last year's return is owing to the figures having been shown in co's this year. Owing to excessive rainfall the area under cultivation has been less, and the outturn is also likely to be less this year.	
				Indian-corn (maize) ...		32,700	24,000	15	18		
				Bhadoi pulse ...	332,500	8,300	7,800	11	9		
				Jute ...		12,000	11,100	12	10		
				Cotton ...		9,800	7,300	9	8		
				Hemp ...		8,300	7,300	12	9		
				Indur ...		86,350	85,900	12	10		
				Oil-seeds (not included in the above).		25,100	23,600	12	9		
				All bhadoi crops ...		10,800	8,800	13	12		
	District Total ...	3,252,480	2,111,500		332,500	238,100	256,300	11	10		

Hooghly	Sadar	282,630	176,900	Bhadol paddy Jute	21,320 14,000	18,000 14,000	21,320 14,000	8 12	16 12	The Sadar sub-division being comparatively high, the excessive rainfall this year has done no harm to the Bhadoi paddy. Excessive rainfall has to some extent injured the jute crop.
	Total	282,660	176,800	All Bhadoi crops	35,360	32,000	35,360	10	14	
	Serampore	219,520	150,000	Bhadol paddy Jute Miscellaneous* (not included in the above).	17,823 1,270 267	11,747 1,160 160	18,283 1,070 167	13 16 15	10 8 6	Bhadol paddy has been affected by the inclemency of weather and the usual rainfall which damaged the crops at the time of sowing to the extent of 20 per cent. Jute and Sunhemp have also suffered much from the unusual rains, which damaged about 8 annas of the crops. Sunhemp.
	Total	210,520	109,000	All Bhadoi crops	18,360	12,567	14,520	15	9	
	Jahamabad	280,320	167,480	Bhadol paddy Millets Bhadol pulse Jute Cotton Hemp Indigo Til (gingelly) Miscellaneous (not included in the above).	13,345 1,530 1,541 55,640 280 1,450 620 1,830	10,136 2,066 900 33 500 3 800	10,136 2,066 900 33 500 3 800	10 10 10 10 10 10 10	10 10 10 10 10 10 10	The low outturn is due to the unusually heavy rains and floods this year. The low outturn of the last year was due to the deficiency of rains. The deficiency in the area is due to most of the lands being under water at the time of cultivation.
	Total	280,320	167,68	All Bhadoi crops	55,880	20,666	16,671	10	10	
	Howrah	100,140	68,760	Bhadol paddy Indian-corn (maize) Bhadol pulse Jute Hemp Til (gingelly) Miscellaneous (not included in the above).	1,046 50 230 4,054 350 1,151 422	991 100 260 2,375 350 800 2,238	991 100 260 2,375 350 800 2,238	19	10	This year's outturn is expected to be less than that of last year on account of excessive rain and floods at the sowing time.
	Total	109,440	69,720	All Bhadoi crops	11,720	8,743	6,607	12	10	
	Chittania	103,920	8,000	Bhadol paddy Jute	12,000 4,000	4,500 1,900	4,500 1,100	10	8	As there was heavy rainfall during the time of ploughing and sowing, less area than normal and last year's area has been sown, cultivation retarded, and much damage caused to the crop. The state of crop is very unfavourable.
	Total	103,920	128,000	All Bhadoi crops	16,000	6,400	6,200	10	8	

1	2	3	4	5	6	7	8	9	10	11	12
DISTRICT.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crops.	Approximate normal area under each <i>bhadoi</i> crop in acres.	Approximate area under each of the last year's <i>bhadoi</i> crops in acres.	Estimated area under each of this year's <i>bhadoi</i> crops in acres.	Taking 10-annas to represent the average outturn, how many annas represented outturn last year?	Taking 10-annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Hoochly- conaila.	Whole district...	1,085,080	702,240	Bhadoi paddy ... Silliers ... Ind an-corn (maize) ... Bhadoi pulse ... Jute ... Cotton ... Hemp ... Indigo ... Til (ginselly) ... Miscellaneous (not in- cluded in the above).	137,920	48,638 1,560 56 330 23,335 29,044 33 1,800 850 3 1,100 4,638	50,270 ..... 100 2,315 29,044 33 850 1,100 4,638	11	10		
	District Total...	1,085,080	702,240	All bhadoi crops	137,920	80,376	79,358	11	10		
	Sadar ...	693,566	422,700	Bhadoi paddy ... Jute ... Hemp ...	34,000 4,400 3,300	4,396* 6,400 1,766	28,050 6,500 2,080	11 14	9 14		
	Total ...	693,566	422,700	All bhadoi crops	41,900	12,400	36,500	14	11½		
Barasa.	Barasa:	313,600	159,400	Bhadoi paddy ... Jute ...	42,000 2,400	36,200 15,300	33,700 15,700	12 12	10 7	The decrease in this year's outturn is due to excessive rainfall, which damaged the jute crop as well as the bhadoi crops.	
	Total ...	313,600	159,400	All bhadoi crops	68,200	51,500	49,400	12	8½		

\* This figure is very improbable. It seems to have been taken from the final bhadoi report of 1892 without any reference to this year's and the normal area.

Basirhat	...	333,200	231,000	Bhadol paddy Jute	...	23,700 17,400	23,000 17,500	27,700 17,400	12 10	10 8
Total	...	333,200	231,000	All bhadoi crops	...	96,100	46,100	43,100	14	12
Diamond Har- bour.	...	323,320	230,000	Bhadol paddy Jute	...	3,900 1,300	8,500 1,800	300 1,800	12 10	4 4
Total	...	323,320	230,000	All bhadoi crops	...	4,500	4,800	1,900	11	4
Whole district.	...	1,071,623	1,223,000	Bhadol paddy Jute Hemp	...	108,700 48,500 3,500	72,300 41,800 1,700	87,500 41,800 2,000	12 13 11	10 8 11
District Total	...	1,071,623	1,223,000	All bhadoi crops	...	109,700	114,500	130,700	12	11
Sadar	...	1,006,383	223,400	Bhadol paddy Jute Miscellaneous (not included in the above)	...	9,300 7,700 1,900	6,400 6,500 1,200	5,500 6,500 1,300	12	10
Total	...	1,006,383	223,400	All bhadoi crops	...	18,900	13,100	13,300	12	10
Satkhira	...	514,642	290,500	Bhadol paddy Jute Til (gingelly)	...	17,100 3,200 8,400	6,500 2,000 6,600	13,000 3,200 8,400	14	12
Total	...	514,642	290,500	All bhadoi crops	...	28,700	16,000	25,000	14	12
Bagchhat	...	863,523	277,100	Bhadol paddy Jute Til (gingelly) Miscellaneous (not included in the above)	...	30,000 6,400 3,900 1,800	30,000 6,400 3,900 1,800	30,000 6,400 3,900 1,800	14 14 14 .....	2 4 12 14
Total	...	863,523	277,100	All bhadoi crops	...	41,400	41,400	41,400	14	11

Khulna

Excessive rains have damaged the crops to some extent.

Constant heavy rains prevented the weeding.

Excessive rains have damaged the crops. Slightly damaged by the heavy rains.

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each <i>bhadai</i> crop in acres.	Approximate area under each of the last year's <i>bhadai</i> crops in acres.	Estimated area under each of this year's <i>bhadai</i> crops in acres.	Taking 16 annas to represent the average outturn how many annas represented outturn last year?	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Khurda— <i>contd.</i>	Whole district ..	3,103,942 4 including 317,440 acres of land on account of area of boundary khals and rivers of Sunderbans in this district.	570,000	Bhadai paddy Bhadai pulse Jute Til (gingelly). Miscellaneous (not included in the above)	58,400 8,200 21,500 4,300 3,100	41,000 2,700 12,400 4,200 3,000	42,500 3,200 21,300 4,300 3,100	14 14 14 14 14	8 12 12 12 12	All the crops have the more or less been damaged by the heavy and excessive rains. The average of the estimated area under cultivation in the three subdivisions were subsequently changed in what are shown in column 4, as these figures were considered more correct. The figures shown under columns 6 and 7 against "Bagerhat" and the "whole district" will not agree with those shown in the return for the preceding year. They have been changed in consideration of the change of the figure in column 4, and as they appear to be more correct.	
	District Total ...	3,103,942 4	570,000	All <i>bhadai</i> crops	58,400	70,500	80,300	14	11		
Nadia	Sadar ...	497,920	382,823	Bhadai paddy Millets Jute Indigo Til (gingelly) Miscellaneous (not included in the above)	63,300 35 8,600 9,200 1,200 100	63,300 33 9,500 9,300 1,200 100	63,300 36 8,100 9,200 1,016 100	16 10 11 8 8 14	12 10 6 9 10		
	Total ...	497,920	382,823	All <i>bhadai</i> crops	84,536	92,776	92,543	11	9		

Kushitea	...	382,080	278,416	Bhadol paddy ... Jute ... Indigo ... Til (gingelly) ... Miscellaneous (not in- cluded in the above),	45,500 22,000 16,500 3,000 300	45,500 22,000 16,500 3,000 300	40,000 22,000 16,500 3,000 300	12 12 12 12 12	8 8 8 8 12
Total	...	342,080	278,416	All bhadoi crops	57,300	58,350	51,300	11	8
Meherpur	...	634,880	492,625	Bhadol paddy ... Indian-corn (maize) ... Jute ... Rice ... Indigo ... Til (gingelly) ... Miscellaneous (not in- cluded in the above),	120,000 1,000 3,000 1,100 20,000 1,200 33,000	120,000 1,000 3,000 1,100 20,000 1,200 33,000	95,000 ... 3,370 550 16,200 900 26,000	14 11 12 11 6 11 11	10 ... 8 8 6 8 10
Total	...	634,880	492,625	All bhadoi crops	150,200	150,250	142,610	11	8
Ranaghat	...	273,250	199,134	Bhadol paddy ... Jute ... Indigo ... Til (gingelly) ... Miscellaneous (not in- cluded in the above),	25,200 17,000 6,100 3,800 25,000	25,200 17,000 6,100 3,800 25,000	25,200 17,000 6,100 3,800 25,000	10 10 8 14 14	16 12 8 16 14
Total	...	273,250	199,134	All bhadoi crops	75,100	75,000	75,000	14	13
Whole district...	...	1,798,160	1,303,090	Bhadol paddy ... Indian-corn (maize) ... Jute ... Rice ... Indigo ... Til (gingelly) ... Miscellaneous (not in- cluded in the above),	280,000 1,000 4,000 1,100 59,000 1,200 59,400	280,000 1,000 4,000 1,100 59,000 1,200 59,400	220,500 30 4,000 4,000 4,300 8,200 52,400	16 10 11 13 11 17 14	18 10 ... 9 8 10 12
District Total...	...	1,798,160	1,303,090	All bhadoi crops	(a) 420,436	(a) 420,350	386,273	12	10

(a) The difference between the figures shown here and those reported in the last year's forecast is due to the adjustment of the area under "jute" and "millet," with reference to the forecast of jute crop for the current year, and the estimate of outturn of jute crops for 1892-93. The abnormal rainfall during ploughing and sowing season affected the area under bhadoi crops and the outturn of jute, indigo and paddy. The excessive rains in June and July last submerged a large tract of land sown with jute and paddy in the Kushitea and Meherpur sub-divisions.

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area cultivated to be under cultivation in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each bhadoi crop in acres.	Estimated area under each year's bhadoi crops in acres.	Taking 10 annas to represent the average output, how many annas represented output in best year?	Taking 10 annas to represent the average output, how many annas will represent this year's output?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Jessore	Sadar	568,960	304,000	Bhadoi paddy Jute Indigo Til (gingelly) Miscellaneous (not included in the above.)	135,400 800 ..... 1,000 800	183,600 800 1,610 1,000 800	120,000 600 ... 500 600	Annas. 13 13 10 6 16	Annas. 12 6 ... 6 5	The decrease in area sown with bhadoi paddy, jute, and miscellaneous crops as compared with normal and last year's due to heavy rainfall at the sowing season. The decrease in output is due to injury caused to the crops by heavy and incessant rains. The increase in the normal area under bhadoi paddy is due to the fact that the area previously grown with indigo, which has ceased to be cultivated, is now brought under cultivation of this crop.	
	Total	568,960	304,000	All bhadoi crops	137,400	137,500	131,000	15	5		
Magura		272,000	171,320	Bhadoi paddy Jute Hemp Indigo Til (gingelly) Miscellaneous (not included in the above.)	30,384 3,540 50 2,056 600 150	38,766 4,430 50 2,094 600 150	34,000 2,540 40 2,056 400 150	14 4 6 3 22 12	14 4 6 3 22 12	<i>Paddy.</i> —The area cultivated and the output are reported to be less than those of the last year, which was a bumper year here in every way. The excessive rainfall at the sowing time and during May and June did some damage, but the favourable weather in July and August has improved the crop beyond all recognition. Indigo has been a miserable failure, the cold seed rain in May and June quite stopping the plant's growth. Excessive rainfall accounts for the bad jute crop, much of it has never grown at all. Til was	



Total	...	272,000	171,520	All bhadoi crops	...	46,050	46,050	43,496	13	19
Jhusida	...	304,000	204,800	Bhadoi paddy	...	16,000	16,000	10,000	20	8
	...			Jute	...	10,000	10,000	10,000	16	8
	...			Indigo	...	12,020	12,020	12,020	10	6
	...			Til (ungelly)	...	500	500	500	6	6
	...			Miscellaneous (not included in the above.)	...	500	500	500	14	12
Total	...	304,000	204,800	All bhadoi crops	...	34,026	34,026	31,026	13	5
Narail	...	311,680	187,220	Bhadoi paddy	...	17,020	17,020	17,020	14	6
	...			Jute	...	10,200	10,200	8,500	16	6
	...			Til (ungelly)	...	9,500	9,500	20,000	10	10
	...			Miscellaneous (not included in the above.)	...	9,400	9,400	9,500	16	8
Total	...	311,680	187,220	All bhadoi crops	...	56,120	56,120	51,520	14	8
Bangson	...	415,900	248,900	Bhadoi paddy	...	106,000	106,000	87,000	10	12
	...			Bhadoi pulse	...	8,054	8,054	6,000	12	8
	...			Jute	...	8,320	7,850	7,800	10	4
	...			Indigo	...	(a) 8,717	2,900	2,900	8	4
	...			Til (ungelly)	...	4,826	2,000	4,000	6	8
	...			Miscellaneous (not included in the above.)	...	8,000	8,000	5,000	6	8
Total	...	415,900	248,900	All bhadoi crops	...	139,017	136,124	105,600	11	8

slightly damaged by excessive rain. The decrease in the area under jute, hemp, and til is due to heavy rains at sowing season.

On account of constant rains the cotton falls much below the average. The area under indigo as shown in columns 6 and 7 has been revised after careful enquiry.

The decrease in area under jute is attributed to rainfall being favourable during the sowing season of the crop. Hence there is a backward mark in the estimation of the better crop. It is felt in the current estimate that the area under jute is likely to be revised.

The figures shown in columns 6 and 7 against indigo differ from those given in the final forecast of 1892, owing to revision based on minute and careful enquiry.

The area sown this year with bhadoi paddy, bhadoi pulse and indigo are below normal and last year's sowing to excessive rain at the sowing season. Jute shows slight increase over last year's area and calls for no explanation, but the decrease as compared with normal is attributed to heavy rains. The area under til is lower than in the preceding year, but below normal. No explanation has been submitted by the Sub-divisional Officer of this variation. The increase as compared with last year's may, however, be attributed to the season being more favourable to the sowing of this crop. The decrease in the area under miscellaneous crops as compared with normal may be attributed to the heavy rainfall of the year. The fall in the outturns of bhadoi paddy, bhadoi pulse, jute, and indigo is attributed to excessive and incessant rain which destroyed the young plants or stunted their growth. The slight increases in the outturns of til and miscellaneous crops call for no comments.

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each <i>bhadai</i> crop in acres.	Approximate area under each of the last year's <i>bhadai</i> crops in acres.	Estimated area under each of this year's <i>bhadai</i> crops in acres.	Taking 10 annas to represent the average outturn, how many annas represented outturn last year?	Taking 10 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Jessore— <i>contd.</i>	Whole district..	1,572,000	1,116,800	Bhadai paddy .. Bhadai pulse .. Jute .. Hemp .. Indigo .. Til (singelly) .. Miscellaneous (not included in the above.)	314,504 8,654 42,126 50 17,799 16,023 19,050	534,328 8,000 42,180 50 19,163 13,706 16,950	534,328 8,000 42,180 40 16,882 23,900 16,850	Annas. 18 12 15 16 10 10 12	Annas. 10 5 7 9 4 6 10		
	District Total..	1,572,000	1,116,800	All bhadai crops ..	41,243	43,356	373,422	13	9		
Murshidabad	Saifur ..	586,240	335,136	Bhadai paddy .. Indian-corn (maize) .. Bhadai pulse .. Jute .. Cotton .. Indigo .. Til (singelly) .. Miscellaneous (not included in the above.)	160,010 920 1,280 13,760 920 30,400 6,720 3,320	160,010 853 1,290 13,720 920 30,400 6,720 3,320	164,422 915 1,290 13,720 910 30,410 6,720 1,540		16	The crop is generally good this year on account of the rains which proved favourable to it. But in the Haripada, Nawada, and Baidanga thans heavy rains at an early season of the year flooded the lands, and prevented a good deal of land being sown.	
	Total ..	586,240	335,136	All bhadai crops ..	216,164	216,164	218,907	16	16		

Jangipur	...	880,100	310,617	Bhadol paddy ...	...	73,600	73,000	72,450	13 12 16 16 12	The outturn bhadoi paddy this year is estimated less owing to excessive and early rainfall, and in consequence early rise of the river.
				Milleta ...	...	...	...	1,250		
				Jute ...	...	16,000	16,000	16,000		
				Indigo ...	...	23,600	23,600	23,600		
				Til (gingelly) ...	...	3,200	3,200	3,200		
				All bhadoi crops	...	118,400	118,400	119,170		
				Total	...	...	...	...		
				Kandi ...	...	405,790	279,795	...		
				Bhadol paddy ...	...	19,515	18,567	19,813		
				Indian-corn (maize) ...	...	10	10	10		
Dumajpur	...	1,372,100	955,548	Bhadol paddy ...	...	254,055	252,895	252,867	14 14 14 14 14 14 14 14 14	The increase in area under cultivation of bhadoi paddy is attributable to the favourable rains and the decrease in area under bhadoi pulse and hemp is due to excessive rains during the sowing time.
				Milleta ...	...	...	...	1,929		
				Indian-corn (maize) ...	...	330	330	355		
				Bhadol pulse ...	...	3,003	3,350	3,350		
				Jute ...	...	30,551	30,551	29,900		
				Cotton ...	...	338	325	215		
				Hemp ...	...	792	752	675		
				Indigo ...	...	69,300	69,300	59,610		
				Til (gingelly) ...	...	9,970	9,970	8,830		
				Miscellaneous (not included in the above)	...	5,963	5,963	2,540		
Dumajpur	...	1,372,100	955,548	All bhadoi crops	...	362,770	361,529	364,462	14 14 14 14 14 14 14 14 14	The increase in the outturn of bhadoi paddy is due to the proper distribution of rainfall, whereas the heavy rainfall at the beginning of sowing season has to some extent damaged the jute crop in certain parts of the district.
				Bhadol paddy ...	...	101,100	101,100	101,100		
				Jute ...	...	78,800	78,800	78,800		
				All bhadoi crops	...	179,900	179,900	179,900		
				Bhadol paddy ...	...	24,900	24,900	26,900		
				Jute ...	...	20,900	20,900	20,900		
				All bhadoi crops	...	47,800	47,800	47,800		
				Bhadol paddy ...	...	128,000	128,000	128,000		
				Jute ...	...	90,900	90,900	90,900		
				All bhadoi crops	...	227,900	227,900	227,900		

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 10 annas to represent the average outturn, how many annas represented outturn last year?	Taking 10 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Bajshahi	Sadar	631,132 <sup>1</sup> / <sub>4</sub>	386,700	Bhadoi paddy .. Jute .. Indigo .. Til (gingelly) .. Miscellaneous (not included in the above).	35,568 35,354 35,734 9,040 700 8	35,568 35,354 35,734 9,040 700 8	35,568 35,354 35,734 9,040 700 8	10 10 10 10 10 10	13 13 13 13 13 13	The excessive rainfall in the time of ploughing and sowing stood in the way of cultivation, and hence the decrease in the area; some damage was caused to the crop by the rain in June and July.	
	Total	631,132 <sup>1</sup> / <sub>4</sub>	386,700	All bhadoi crops	60,920	61,010	79,989	14	14 <sup>1</sup> / <sub>2</sub>		
	Nalor	529,880	405,100	Bhadoi paddy .. Jute .. Til (gingelly) .. Miscellaneous (not included in the above).	35,186 34,781 734 300	30,040 35,183 774 340	35,166 34,761 734 300	14 14 16 12	12 12 12 14		
	Total	522,880	405,100	All bhadoi crops	71,001	69,207	71,061	14	12 <sup>1</sup> / <sub>2</sub>		
Nowgong		385,920	297,100	Bhadoi paddy .. Jute .. Hemp .. Til (gingelly) .. Miscellaneous (not included in the above).	34,726 34,595 1,000 170 5,200	34,700 34,630 1,200 200 5,260	34,600 36,000 1,100 200 3,640	15 18 12 15 16	14 10 16 4 16	The decrease in outturn of bhadoi paddy is due to excess rainfall. Excessive rainfall prevented many from sowing their lands with jute. It also damaged and destroyed plants in some lands, while constant rainfall without sunshine encouraged growth of weeds which caused the plants to dwarf and consequently the outturn will be less.	
	Total	385,920	297,100	All bhadoi crops	70,371	75,960	68,900	14	12		

Whole district...	1,539,932 1/4	1,085,900	Bhadol paddy ...	...	...	105,200	100,266	104,226	16	13 1/2	Heavy rain fell at the time of sowing, which prevented the cultivators from cultivating all the bhadoi crop lands, hence the decrease in the area sown this year as compared with the normal area and the area sown last year. The heavy downpour of the year brought up weeds which interfered with the proper growth of the plants, and hence average outturn is not expected.
			Jute ...	...	...	104,340	106,467	100,102	16	12 1/2	
			Hemp ...	...	...	1,900	1,100	1,100	12	16	
			Indigo ...	...	...	9,000	9,000	9,400	10	14	
			Til (gingelly) ...	...	...	1,624	1,674	1,354	13 1/2	10	
			Miscellaneous (not included in the above),	...	...	5,568	5,568	3,308	13	14 1/2	
District Total ...	1,539,932 1/4	1,085,900	All bhadoi crops	...	...	228,432	223,117	219,296	14	15	
Sadar ...	730,240	456,800	Bhadol paddy ...	...	...	30,100	30,100	30,200	15	14	
			Millet's ...	...	...	5,200	.....	5,500	...	12	
			Indian-corn (maize) ...	...	...	100	...	100	...	16	
			Bhadol pulse ...	...	...	7,600	7,600	7,600	4	16	
			Jute ...	...	...	67,200	76,300	80,900	12	16 1/2	
			Indigo ...	...	...	5,700	5,700	4,000	3	8	
			Til (gingelly) ...	...	...	1,900	1,900	2,000	3	8	
Total ...	730,240	456,800	All bhadoi crops	...	...	118,100	121,600	130,900	12	14	
Nulphamari ...	414,720	275,600	Bhadol paddy ...	...	...	64,000	72,000	73,000	14	16	
			Bhadol pulse ...	...	...	5,100	5,100	5,200	10	10	
			Jute ...	...	...	80,900	81,000	75,300	14	12	
			Hemp ...	...	...	25	25	10	...	5	
			Indigo ...	...	...	2,000	2,100	2,000	8	...	
Total ...	414,720	275,800	All bhadoi crops	...	...	151,100	160,225	156,160	12	12	
Kurigram ...	599,060	466,900	Bhadol paddy ...	...	...	117,300	117,300	117,300	12	10	
			Jute ...	...	...	87,900	87,900	87,900	11	14	
			Miscellaneous (not included in the above),	...	...	94,600	94,600	94,000	16	12	
Total ...	599,060	466,900	All bhadoi crops	...	...	299,800	299,800	299,800	13	12	

Continued and incessant rainfall was the cause of less outturn of bhadoi paddy and indigo.

Incessant rainfall during the second half of June and nearly the whole of July injured the jute crop.

The decrease of outturn is attributable to incessant rain at the time of weeding and cutting out. There is a decrease of two annas in the outturn of jute crop, which is attributable to the irregular rain, but it was more favourable than that of last year. The decrease is attributable to irregular rainfall.

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 16 annas to represent the average outturn, how many annas represented outturn last year?	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Rangpur— cont'd.	Gabanda	489,400	871,200	Bhadoi paddy	64,000	64,320	64,000	Annas. 14	Annas. 12	Incessant and continued rainfall during the second half of June and the whole of July did some damage to the bhadoi paddy not then cut to the extent of about four annas of the estimated outturn. * Seasonable rainfall and fine weather facilitated cultivation, and a better outturn was expected, but continued and incessant rain injured the crop.	
				Jute	61,200	61,200	61,200	15	10*		
	Total	489,400	871,200	All bhadoi crops	115,200	115,520	115,200	14½	11		
	Whole district.	2,351,040	1,002,700	Bhadoi paddy	275,400	283,400	285,100	13½	13		
				Millets	5,500	.....	5,500	.....	12		
				Indian-corn (maize)	100	.....	100	.....	16		
				Bhadoi pulse	12,700	12,700	12,800	7	13		
				Jute	286,300	286,400	285,300	13	13½		
				Indigo	7,800	7,800	6,600	8½	8		
				Til (singelly)	1,900	1,900	2,100	2	9		
				Miscellaneous (not included in the above).	94,600	94,900	94,000	16	12		
	District Total	2,351,040	1,002,700	All bhadoi crops	654,900	656,800	702,400	13	12		

Bogra	Whole district...	929,000	121,000	Bhadai paddy ...	140,000	175,000	175,000	15	10	The decrease in the outturn estimated is due to the damage done to the crops by excessive rain.
	District Total ...	929,000	121,000	Jute ...	76,000	75,000	75,000	13	12	
	Sadar	564,480	423,000	All bhadoi crops	216,000	250,000	250,000	16	104	
	Total	564,480	423,000	Bhadai paddy	64,000	61,000	58,500	12	10	Excessive rainfall affected both the area and outturn of bhadoi paddy and the outturn of indigo.
				Jute	50,800	50,800	49,250	16	10	
				Indigo	8,520	8,520	8,520	14	4	
				Til (gingelly)	140	140	133	8	10	
				Miscellaneous (not included in the above)	46,180	46,180	45,000	14	10	
				All bhadoi crops	5,820	5,820	5,820	10	10	
	Total	564,480	423,000	All bhadoi crops	216,000	216,740	216,740	12	9	
	Siraganj	612,450	459,500	Bhadai paddy	61,500	61,500	65,000	12	10	Excessive rainfall affected the area under cultivation of hemp; outturn cannot yet be ascertained.
				Bhadai pulse	21,400	21,400	18,400	8	5	
				Jute	16,000	16,000	16,250	17	14	
				Hemp	23,100	23,100	20,100	16	8	
				Til (gingelly)	30,100	30,100	30,100	10	9	
				Miscellaneous (not included in the above)	16,900	16,900	14,900	10	9	
	Total	612,450	459,500	All bhadoi crops	231,700	237,930	234,750	13	10	
	Whole district..	1,176,930	882,500	Bhadai paddy...	135,200	125,200	123,900	12	10	High price induced the cultivators to sow more land; outturn was affected by rainfall.
				Bhadai pulse	20,400	20,400	18,400	8	8	
				Jute	130,800	137,070	197,172	16	13	
				Hemp	31,020	31,020	28,020	15	13	
				Indigo	180	180	133	4	4	
				Til (gingelly)	76,500	76,500	83,100	12	9	
				Miscellaneous (not included in the above)	23,720	23,720	23,720	19	9	Both the area and outturn of miscellaneous crops was affected by rainfall.
	District Total ...	1,176,930	882,500	All bhadoi crops	460,500	468,230	470,945	12	9	
	Sadar, including Kalimpang.	464,640	61,400	Bhadai paddy	2,900	2,900	2,500	12	14	The increase in area is due to ordinary fluctuations in the cultivation.
				Willetts	7,700	7,700	5,700	12	14	Owing to sufficient and seasonable rainfall the outturn is expected to be better this year.
				Indian-corn (maize)	17,600	17,600	22,100	12	14	
				Miscellaneous (not included in the above)	1,400	4,400	4,900	12	14	
	Total	464,640	61,400	All bhadoi crops	34,600	32,600	35,500	12	14	

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each <i>bhadol</i> crop in acres.	Approximate area under each of the last year's <i>bhadol</i> crops in acres.	Estimated area under each of this year's <i>bhadol</i> crops in acres.	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn?	Taking 10 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Darjeeling- coald.	Kurseong ...	118,400	13	Bhadol paddy ... Indian-corn (maize) ... Miscellaneous (not included in the above),	1 6 6	1 6 6	1 6 6	Anna. 14 14 13	Anna. 14 14 13	The increase in the area for bhadoi paddy is due to ordinary fluctuation in cultivation. Rainfall being sufficient and well distributed, the outturn of bhadoi paddy and jute is expected to be better, but the rainfall did not do good to til.	
	Total ...	118,400	13	All bhadoi crops ...	13	13	13	13	13		
	Siliguri ...	161,920	116,900	Bhadol paddy ... Indian-corn (maize) ... Jute ... Til (xinsellir) ... Miscellaneous (not included in the above),	20,400 106 13,800 75 95	20,200 106 13,800 75 25	20,900 106 13,800 75 25	14 16 12 15 12	15 16 16 12 12		
	Total ...	161,920	116,900	All bhadoi crops ...	43,400	43,900	43,900	14	14		
	Whole district...	744,960	176,613	Bhadol paddy ... Millet ... Indian-corn (maize) ... Jute ... Til (xinsellir) ... Miscellaneous (not included in the above),	32,901 1,700 17,700 13,800 75 4,431	32,101 7,700 17,700 13,800 75 4,431	32,501 6,800 22,200 13,800 75 4,431	13 12 14 12 16 12	14 14 15 12 16 12		
	District Total ...	744,960	176,613	All bhadoi crops ...	76,013	75,813	76,113	13	14		



Jalpaiguri ...	Kurseong ...	1,072,150	657,500	Bhadol paddy Indian-corn (maize) Bhadol pulse Jute Til (gingelly)	113,000 2,000 77,500 1,000	113,955 1,000 500 53,595 ..	117,650 1,000 76,130 1,000	14 8 8 16 12	14 8 8 16 12	14 8 8 16 12	14 8 8 16 12
Total	...	1,072,150	657,500	All bhadoi crops	108,800	198,700	1-6,340	13	13	13	13
Alipur	...	823,731	498,630	Bhadol paddy Jute Cotton Miscellaneous (not in- cluded in the above)	73,750 18,700 200 200	88,700 13,500 200 200	53,700 12,500 200 200	12	12	12	12
Total	...	923,731	498,990	All bhadoi crops	92,500	72,300	86,300	11	11	11	11
Whole district	...	1,895,881	966,400	Bhadol paddy Indian-corn (maize) Bhadol pulse Jute Cotton Til (gingelly) Miscellaneous (not in- cluded in the above)	156,750 2,000 86,000 200 1,600 200	172,655 1,000 96,405 200 ... 200	181,350 1,000 88,350 200 1,000 200	13 8 8 16 12 12 12	13 8 8 16 12 12 12	13 8 8 16 12 12 12	13 8 8 16 12 12 12
District Total	...	1,895,881	966,400	All bhadoi crops	250,600	271,000	282,600	12	12	12	12

The Sub-divisional Officer reports that the figures now given in column 6 are correct.

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 10 annas to represent the average output, how many annas represented output last year?	Taking 10 annas to represent the average output, how many annas will represent this year's output?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Dacca	Sadar	Area. 81,240	Area. 405,100	Bhadoi paddy Jute Ml (gingelly) ..	Area. 102,000 131,500 12,800	Area. 124,000 125,100 12,800	Area. 124,000 138,700 12,500	Area. 13 13 8	Area. 6 10 7	The figures for jute for all the sub-divisions have been noted from the final jute forecast of 1893, and also for reason given against (a) the totals of columns 6 and 7 will not in some cases agree with the figures given in columns 5 and 7, respectively of the final report on bhadoi crops of 1892.	
	Total	81,240	405,100	All bhadoi crops	2,75,000	201,500	213,400	184	74		
	Munshiganj	22,640	128,000	Bhadoi paddy Jute Miscellaneous (not included in the above).	22,000 15,000 27,000	17,000 14,000 20,200	15,000 14,500 21,200	12 10 12	10 3 10		
	Total	22,640	128,000	All bhadoi crops	64,000	51,200	60,200	114	24		

Faridpur	Xarainganj	...	410,240	230,400	Bhadol paddy	...	73,400	67,200	68,000	7	7	7
		...	...	...	Bhadol pulse	...	1,000	600	500	7	8	8
		...	...	...	Jute	...	40,000	48,000	44,000	16	12	12
		...	...	...	Til (singelly)	...	800	500	500	7	7	7
Faridpur	Total	...	410,240	230,400	All bhadoi crops	...	113,200	111,200	112,900	9½	8½	8½
		...	312,960	234,200	Bhadol paddy	...	16,000	16,000	16,000	8	8	8
		...	...	...	Millet	...	400	400	400	10	14	14
		...	...	...	Jute	...	13,000	10,000	12,000	13	5	5
Faridpur	Manuckganj	...	...	...	Til (singelly)	...	1,200	1,200	1,200	10	10	10
		...	...	...	Miscellaneous	(not included in the above.)	(a) 20,500	12,900	16,000	10	12	12
		...	312,960	234,200	All bhadoi crop	...	51,700	41,000	46,300	10½	10½	10½
		...	1,700,080	997,700	Bhadol paddy	...	174,900	163,700	162,600	9½	7½	7½
Faridpur	Whole district	...	...	...	Millet	...	400	400	400	10	14	14
		...	...	...	Bhadol pulse	...	1,000	600	500	7	8	8
		...	...	...	Jute	...	219,300	193,300	208,700	13½	9½	9½
		...	...	...	Til (singelly)	...	14,900	14,300	14,300	8½	8	8
Faridpur	District Total	...	1,700,080	997,700	Miscellaneous	(not included in the above.)	47,800	33,000	37,200	11	11	11
		...	560,400	388,300	Bhadol paddy	...	134,500	100,000	101,000	13	6	6
		...	...	...	Jute	...	25,000	25,000	20,000	15	5	5
		...	...	...	Hemp	...	300	300	100	14	5	5
Faridpur	Sadar	...	...	...	Til (singelly)	...	4,000	4,000	500	10	4	4
		...	...	...	Miscellaneous	(not included in the above.)	500	500	300	14	4	4
		...	550,400	385,300	All bhadoi crops	...	164,600	129,800	132,000	13½	5	5
		...	273,920	205,400	Bhadol paddy	...	112,400	90,800	84,800	14	8	8
Faridpur	Goalundo	...	...	...	Millet	...	100	100	100	Not known	Not known	Not known
		...	...	...	Jute	...	20,000	20,000	20,000	15	12	12
		...	...	...	Indigo	...	1,000	850	1,000	Not known	Not known	Not known
		...	...	...	Til (singelly)	...	600	600	600	10	Not known	Not known
Faridpur	Total	...	273,920	205,400	All bhadoi crops	...	134,100	112,400	106,000	14	9	9

(a) Ascertained on re-enquiry.

Owing to high floods, aus in low lands has to some extent been damaged. Owing to constant rain and high floods, the outturn of jute was less than last year.

\* It is probable that not more than 1½th remained unsown and 1½th sown. Of this, probably half, i.e., ¾th was destroyed. This leaves ¼th of the normal area under cultivation at harvest time, i.e., ¼th-½th.

† The same remarks apply as to the sadar, but apparently not so much has been destroyed of that which was sown.

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 16 annas to represent the average outturn, how many annas represented outturn last year?	Taking 10 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Faridpur— cowed.	Madaripur ..	625,540	416,800	Bhadoi paddy .. Jute .. Til (gingelly) ..	98,000 40,000 15,000	41,600 40,000 9,600	64,000* 40,000 10,000	Annas. 16 16 12	Annas. 5 8 12	In the <i>b/s</i> at least one-third was not sown; therefore two-thirds of normal area were sown. Of this again a great deal was destroyed, leaving probably not more than one-third normal area under cultivation at time of harvest.	
	Total ..	625,569	416,860	All bhadoi crops	146,000	91,200	114,000	15	8		
	Whole district ..	1,450,580	1,007,500	Bhadoi paddy .. Jute .. Til .. Hemp .. Indigo .. Til (gingelly) .. Miscellaneous (not included in the above.)	343,200 100 85,000 300 820 14,800 500	252,480 100 85,000 300 820 14,800 500	249,400 100 80,000 100 820 11,100 500	14 14 15 14 14 10 14	6 6 8 5 5 5 4		
	District Total ..	1,450,890	1,007,540	All bhadoi crops	444,700	338,400	349,000	14	6		
Backergunge	Sadar ..	711,040	446,700	Bhadoi paddy .. Jute ..	100,700 6,200	82,900 6,200	82,800 6,200	14 14	2 10		
	Total ..	711,040	446,700	All bhadoi crops	106,900	89,000	89,000	14	6		

Mymensingh	Patuakhali	...	757,540	320,200	Bhadol paddy ...	...	20,400	20,400	20,400	16	8	The heavy and very frequent rainfall during the early part of the year and the unusual rise of waters have affected the crops very seriously and hence the bad outturn.  Heavy rainfall and high flood have damaged jute and bhadol crops to a considerable extent.
	Total	...	757,540	320,200	All bhadol crops	...	20,400	20,400	20,400	16	8	
	Pirojpur	...	442,590	320,200	Bhadol paddy ...	...	57,600	57,600	57,600	14	8	
	Total	...	442,590	320,200	All bhadol crops	...	57,600	57,600	57,600	14	8	
	Bhola	...	383,600	256,100	Bhadol paddy ...	...	95,800	95,800	95,800	14	2	
	Total	...	383,600	256,100	All bhadol crops	...	95,800	95,800	95,800	14	2	
	Whole district...	...	2,335,390	1,343,200	Bhadol paddy ...	...	283,500	283,500	283,500	14	5	
	District Total	...	2,335,390	1,343,200	Jute ...	...	6,400	6,400	6,400	12	8	
	Sadar	...	1,153,360	690,960	All bhadol crops	...	273,200	273,200	273,200	13	7	
	Total	...	1,153,360	690,960	Bhadol paddy ...	...	73,000	73,000	73,000	13	8	
Tangail	Total	...	606,245	533,023	Bhadol paddy and til (gingelly), Jute ...	...	123,023	123,023	123,023	16	13	The heavy rains and unusual rise of the waters have done some damage to the crops.  Til is sown with bhadol paddy in the same land.
	Total	...	606,245	533,023	All bhadol crops	...	325,000	325,000	325,000	16	13	
	Netrokona	...	908,660	324,600	Bhadol paddy ...	...	75,000	75,000	75,000	8	8	
	Total	...	908,660	324,600	Jute ...	...	20,000	20,000	20,000	14	16	
	Total	...	908,660	324,600	Til (gingelly) ...	...	250	250	250	16	16	
	Total	...	908,660	324,600	Miscellaneous (not included in the above).	...	20,300	20,300	20,300	16	16	
	Total	...	908,660	324,600	All bhadol crops	...	123,650	123,650	123,650	18	14	
	Total	...	908,660	324,600	All bhadol crops	...	123,650	123,650	123,650	18	14	
	Total	...	908,660	324,600	All bhadol crops	...	123,650	123,650	123,650	18	14	
	Total	...	908,660	324,600	All bhadol crops	...	123,650	123,650	123,650	18	14	

District.	2	3	4	5	6	7	8	9	10	11	12
	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Number of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 10 annas to represent the average outturn, how many annas represented outturn last year?	Taking 10 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Revenue and Agriculture, Bengal.
Mymensingh -concd.	Kishoreganj ...	476,160	221,000	Bhadoi paddy ... Jute ...	64,000 67,000	57,000 44,800	57,000 45,000	Annas. 10 10 12 8	Annas. 10 10 8 8	Owing to the incessant heavy rain in May last, the area cultivated this year has been smaller than the normal area under cultivation; but the area brought under jute cultivation this year is greater than that of last year owing to the high prices of jute. As in the early part of last year, considerable damage was done by excessive rainfall at the weeding time and also some damage was done by early flood.	
	Total ...	476,160	224,000	All bhadoi crops ...	121,200	102,400	103,600	11 9	9		
	Jamalpur ...	617,752	627,200	Bhadoi paddy ... Millet ... Indian-corn (maize) ... Bhadoi pulse ... Jute ... Cotton ... Hemp ... Til (gingelly) ... Miscellaneous (not included in the above.)	60,700 25,000 140 25 1,280 24,000 25 100 1,230 1,830 4,000	25,000 140 25 1,280 24,000 25 100 1,230 1,830 4,000	25,000 140 25 1,280 24,000 25 100 1,230 1,830 4,000	8 17	17	This year's outturn is much better than last year's owing to the seasonable and sufficient quantity of rainfall during the current year. The outturn would have been a bumper one had not there been excessive rain and flood which occurred lately. The area under cultivation of each bhadoi crop is the same as of the last year, except of jute, which was cultivated under increased area by about 4,000 acres for seasonable rainfall, and also for better prospect. The cultivation in jute is gradually increasing here year by year.	
	Total ...	617,752	627,200	All bhadoi crops ...	60,700	65,810	59,910	8 17	17		

Whole district...	4,032,460	2,405,683	Bhadoi paddy ... Millets ... Indian-corn (maize) ... Bhadoi pulse ... Jute ... Cotton ... Hemp ... Til (gingelly) ... Miscellaneous (not in- cluded in the above).	864,559	{ 333,683 100 25 58,880 380,200 378,167 35 1,500 3,280 23,100	{ 333,683 100 25 58,880 380,200 378,167 35 1,500 3,280 23,100	12	12
District Total	4,032,460	2,405,683		864,559	{ 333,683 100 25 58,880 380,200 378,167 35 1,500 3,280 23,100	{ 333,683 100 25 58,880 380,200 378,167 35 1,500 3,280 23,100	12	12
Tippur								
Salar	730,880	547,800	Bhadoi paddy ... Millets ... Bhadoi pulse ... Jute ... Hemp ... Til (gingelly) ... Miscellaneous (not in- cluded in the above).	108,700	{ 113,197 14 39 20,532 25 4,246 433	{ 113,197 14 39 20,532 25 4,246 433	12	8
Total	730,880	547,800	All bhadoi crops	108,700	113,197	113,197	12	8
Chandpur	571,200	285,600	Bhadoi paddy ... Jute ... Til (gingelly) ... Miscellaneous (not in- cluded in the above).	138,400	{ 40,980 64,000 9,600 10,000	{ 40,980 64,000 9,600 10,000	16 17 20 16	0 8 8 10
Total	571,200	285,600	All bhadoi crops	138,400	138,400	138,400	16	2
Brshnarbaria	492,100	333,900	Bhadoi paddy ... Jute ... Hemp ... Til (gingelly) ...	88,500	{ 57,000 145,145 600 985	{ 57,000 145,145 600 985	16 16 16 16	10 10 14 4
Total	492,100	333,900	All bhadoi crops	88,500	88,500	88,500	16	10
Whole district..	1,594,240	1,167,300	Bhadoi paddy ... Millets ... Bhadoi pulse ... Jute ... Hemp ... Til (gingelly) ... Miscellaneous (not in- cluded in the above).	338,600	{ 241,157 14 330 230,000 455 14,801 16,473	{ 241,157 14 330 230,000 455 14,801 16,473	14 13 13 16 14 16 14	8 8 8 10 11 16 9
District Total	1,594,240	1,167,300	All bhadoi crops	338,600	338,600	338,600	14	8

The unusual rise of water this year, owing to excessive and continuous rainfall, has much damaged the bhadoi crops.

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 16 annas to represent the average outturn, how many annas represented outturn last year?	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn.	Remarks by the District Offices.	Remarks by the Department of Land Records and Agriculture, Bengal.
Noakhali	Sadar	899,720	640,000	Bhadoi paddy Bhadoi pulse Jute Til (gingelly)	132,300 2,000 9,300 1,300	132,300 2,000 9,300 1,300	(1)133,300 2,000 9,300 1,300	15 11 11 11	Annas. 15 11 11 11	(a) Owing to heavy rainfall at the time of sowing about 4th of the area sown last year with aus, paddy and gingelly remained uncultivated. (b) Owing to inundation when the plains were in flower, the outturn is expected to be shorter this year than that of the last year.	
	Total	899,720	640,000	All bhadoi crops	132,300	132,300	133,300	15	Annas. 15	(c) About 400 acres of arable land having been acquired by the Railway Company for Assam-Bengal Railway lines, the area shown in column 4 has been reduced accordingly.	
	Fenny	219,520	(c)175,800	Bhadoi paddy	54,300	54,400	54,300	16	(9)	(d) Owing to excessive rainfall this year's outturn has been estimated to be much less than that of the previous year.	
	Total	219,520	175,800	All bhadoi crops	54,300	54,400	54,300	16	15		
	Whole district	1,030,240	815,800	Bhadoi paddy Bhadoi pulse Jute Til (gingelly)	204,600 2,000 9,300 1,300	204,700 2,000 9,300 1,300	204,600 2,000 9,300 1,300	15 11 11 11	Annas. 15 11 11 11		
	District Total	1,030,240	815,800	All bhadoi crops	204,600	204,700	204,600	15	Annas. 15	* Figures shown in the final note on the bhadoi crops 1892 by the Director of Land Records have been accepted and shown in column 9.	



Chittagong...	Sadar ...	1,043,990	381,200	Bhadai paddy Indian-corn (maize) Cotton Hemp Til (ungedly) ... Miscellaneous (not included in the above.)	89,600	55,563	55,563	18	16	0
					80	20		18	16	
					40	22		16	14	
					13,480	13,215		14	14	
					800	780		16	16	
					810	800		16	16	
	Total ...	1,043,990	381,200	All bhadoi crops ...	97,700	80,400		13	14	
	Cox's Bazar ...	508,680	464,615	Bhadai paddy ...	11,610	11,616		16	9	
	Total ...	508,680	464,615	All bhadoi crops ...	11,616	11,616		16	9	
	Whole district	1,552,670	735,815	Bhadai paddy Indian-corn (maize) Cotton Hemp Til (ungedly) ... Miscellaneous (not included in the above.)	99,210	77,179		18	9	
					40	20		16	16	
					40	22		14	14	
					13,420	13,215		14	14	
					800	780		16	16	
					810	800		16	16	
	District Total ...	1,552,670	735,815	All bhadoi crops ...	100,810	82,016		16	14	
Chittagong Hill Tracts	Whole district	3,463,100	Area under plough about 34,400	Bhadai paddy (plough) Indian-corn (maize) Cotton Til (ungedly) ... Miscellaneous (not included in the above.)	3,800	1,600		9	4	
					22,000	17,000		9	7	
					...	...		7	...	
					...	...		8	3	
					...	...		8	4	
					...	...		6	4	
	District Total ...	3,463,100	44,000	All bhadoi crops ...	27,500	19,500		71	41	

The excessive rainfall in the month of June has done great damage to the crops.

Many juns cut could not be burnt as the rains set in earlier than in previous years. As paddy also could not be grown in many places owing to unusually heavy fall of rain, causing flood and destruction of the seeds sown and the plants when tender. Excessive rain also did much damage to jun crop, especially to cotton: hence the low estimates in columns 8 and 10.

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 16 annas to represent the average outturn, how many annas represented outturn last year?	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Patna	Sadar	394,880	280,780	Millet .. .. Indian-corn (maize) .. Bhadoi pulse .. .. Cotton .. .. Hemp .. .. Indigo .. .. Til (sengelly) .. .. All bhadoi crops ..	7,000 23,000 300 200 200 100 200 33,000	5,893 22,000 200 167 67 100 100 28,433	17,333 296 133 77 17 70 24,229	Annas 9 9	Owing to the early heavy rains the seedlings were destroyed. The area sown was less than last year's for the same reason.		
	Total	394,880	280,780								
	Barr	536,640	259,200	Bhadoi paddy .. .. Millet .. .. Indian-corn (maize) .. Bhadoi pulse .. .. Cotton .. .. Jute .. .. Hemp .. .. Til (sengelly) .. .. Miscellaneous (not included in the above.)	2,130 10,400 22,320 1,025 440 2,900 1,200 3,775	9,023 9,800 21,900 1,925 700 2,050 400 1,500 3,450	1,525 5,200 13,000 863 700 2,050 350 1,000 2,520	Annas 14 6	The abnormally heavy rains at the commencement of the sowing season were injurious to the crops. Some low lands could not be sown for the reason of submergence. Last year the rainfall was seasonable, and hence the better outturn.		
	Total	336,640	259,200	All bhadoi crops	44,800	41,000	32,620	14	0		
	Bihar	507,520	308,000	Bhadoi paddy .. .. Millet .. .. Indian-corn (maize) .. Hemp .. ..	5,000 70,000 45,000 1,000	3,000 70,000 45,000 1,000	4,000 60,000 45,000 1,000	16 16 16 16	16 12 8 9	The season was favourable to the Bhadoi paddy. The excess rainfall has done much harm to the other crops.	
	Total	507,520	308,000	All bhadoi crops	134,000	122,000	110,000	15	11		

Dinapore	91,320	73,220	Bhadai paddy ... Indian-corn (maize) ... Jute ... Cotton ... Hemp ... Til (singelly) ... Miscellaneous (not in- cluded in the above)	8,520 7,680 80 80 80 80 7,680	3,520 7,680 80 80 80 80 7,680	3,520 5,120 80 80 80 80 5,120	6	On account of the excessive rain, the area sown is less than last year; also inundations later on caused great injury to the crops, hence the output is expected to be much worse than last year.
Total	91,320	73,220	All bhadoi crops	12,500	12,500	14,080	6	
Whole district	1,830,560	993,500	Bhadai paddy ... Millet ... Indian-corn (maize) ... Bhadai pulse ... Jute ... Cotton ... Hemp ... Til (singelly) ... Miscellaneous (not in- cluded in the above)	10,670 57,320 103,180 1,325 880 2,640 1,880 100 11,405	8,545 83,823 94,840 1,341 783 2,597 1,547 17 11,130	9,045 74,413 82,463 1,131 780 2,593 1,537 17 7,640	8	
District Total	1,830,560	993,500	All bhadoi crops	227,160	211,303	190,929	8	
Badar	1,919,260	917,960	Bhadai paddy ... Millet ... Indian-corn (maize) ... Bhadai pulse ...	4,300 63,900 26,900 1,200	4,580 28,900 26,900 1,200	4,580 28,900 26,900 1,200	15 7 6 6	
Total	1,919,260	917,960	All bhadoi crops	91,600	91,600	91,600	6	
Jahanabad	587,940	521,900	Bhadai paddy ... Millet ... Indian-corn (maize) ... Bhadai pulse ... Cotton ...	8,200 13,000 8,300 8,600 100	8,200 12,400 8,300 8,600 100	8,200 12,400 8,300 8,600 100	15 7 6 6 16	
Total	587,940	521,900	All bhadoi crops	33,000	33,000	32,000	8	
Aurangabad	797,440	478,100	Bhadai paddy ... Millet ... Indian-corn (maize) ... Bhadai pulse ... Indigo ... Til (singelly) ... Miscellaneous (not in- cluded in the above)	1,800 8,200 8,200 1,800 100 500	2,200 10,400 10,400 1,700 100 600	2,700 10,000 10,200 1,400 200 600	19	
Total	797,440	478,100	All bhadoi crops	28,700	30,000	28,900	10	

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 16 annas to represent the average outturn, how many annas represented outturn last year?	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Gaya— conold.	Nawada	611,200	459,600	Bhadoi paddy ... Millet ... Indian-corn (maize) ... Bhadoi pulse ... Til (gingelly) ...	5,200 32,000 18,700 8,700 1,200	5,100 28,900 18,300 8,600 1,200	5,200 32,000 18,700 8,700 1,200	Annas. 12	Annas. 12	The normal area is understood to have been sown everywhere on account of good rain at the time, and in Arrangah the area sown was more than normal. The crops, with the exception of paddy, have been greatly damaged by too continuous rain in June and July. The areas in column 3 have been corrected according to the Census Report of 1891.	The figures shown in column 7 against Sadar and Bhadua subdivisions were reproduced by the Collector from the Final Bhadoi Report of 1892 without any attempt to reconcile
	Total	611,200	459,600	All bhadoi crops	57,800	62,300	67,800	14	12		
	Whole district.	3,015,650	2,207,500	Bhadoi paddy ... Millet ... Indian-corn (maize) ... Bhadoi pulse ... Cotton ... Indigo ... Til (gingelly) ... Miscellaneous (not included in the above)	19,800 111,500 63,100 15,000 100 100 1,700	20,000 107,000 63,200 15,100 100 200 1,800	20,600 113,700 65,100 15,300 100 200 1,700	14 9 7 7 16 11 11	14 9 7 7 16 11 11		
	District Total	3,015,650	2,207,500	All bhadoi crops	215,600	215,800	221,200	14	12		
Shahabad	Sadar	503,600	467,400	Bhadoi paddy ... Millet ... Indian-corn (maize) ... Bhadoi pulse ... Til (gingelly) ... Miscellaneous (not included in the above)	51,000 14,700 14,700 7,900 2,600 6,800	47,500 15,500 15,500 7,900 2,600 6,800	47,500 15,500 15,500 7,900 2,600 6,800	12	12	The crops received much damage by the heavy rainfall of June and July. They have picked up lately, but the return will not reach an average.	The figures shown in column 7 against Sadar and Bhadua subdivisions were reproduced by the Collector from the Final Bhadoi Report of 1892 without any attempt to reconcile
	Total	503,600	467,400	All bhadoi crops	81,000	96,800	96,800	10	13		
	District Total	3,015,650	2,207,500	All bhadoi crops	215,600	215,800	221,200	14	12		
	Sadar	503,600	467,400	All bhadoi crops	81,000	96,800	96,800	10	13		

Esar ...	419,940	317,891	Bhadol paddy ... Millet ... Indian-corn (maize) ... Bhadol pulse ... Til (gingelly) ... Miscellaneous (not in- cluded in the above),	82,320	8,700 3,590 18,000 2,100 1,980 10,000	12	14	Ditto.	them to the estimates of this year. For this reason they have been discarded and re- placed by the same estimates as given for this year.
Total	419,940	217,891	All bhadoi crops	82,320	82,320	12	13		
Babus	832,640	694,640	Bhadol paddy ... Millet ... Indian-corn (maize) ... Bhadol pulse ... Jute ... Cotton ... Hemp ... Indigo ... Til ... Miscellaneous (not in- cluded in the above),	78,030	5,500 6,637 2,154 2,340 31 31 671 600 762 25,031	12	12	Ditto.	
Total	832,640	694,640	All bhadoi crops	78,030	44,117	12	12		
Rasaram	955,520	832,540	Bhadol paddy ... Millet ... Indian-corn (maize) ... Bhadol pulse ... Jute ... Cotton ... Til (gingelly) ... Miscellaneous (not in- cluded in the above),	101,855	27,174 12,985 20,109 6,380 463 178 390 653 83,033	12	54	Excessive rainfall at sowing time has stunted the growth of these crops. The outturn will not much exceed one-third of an average.	The Collector will please enquire and report on the accu- racy of the sub-di- visional estimates of this year's outturn. It is rather improbable that while one sub- division should get a 1-anna crop another could not get more than 2-anna crop.
Total	955,520	832,540	All bhadoi crops	101,855	101,855	12	54		
Whole district	2,793,600	1,712,461	Bhadol paddy ... Millet ... Indian-corn (maize) ... Bhadol pulse ... Jute ... Cotton ... Hemp ... Indigo ... Til (gingelly) ... Miscellaneous (not in- cluded in the above),	313,335	88,954 48,217 65,353 21,920 514 249 671 800 6,014 76,910	114	104		
District Total	2,793,600	1,712,461	All bhadoi crops	313,335	294,532	114	104		



Madhubani	863,360	534,455	Bhadol paddy ...	59,535	30,000	16	Owing to the favourable rainfall the prospect of bhadoi crop is very favourable, the increase in area is due to the rainfall at every stage of their growth. The recent flood has not done above 2 annas damage on whole area, but if rain does not come soon there will be heavy damage done.
			Millets	65,311	70,500	16	
			Indian-corn (maize)	6,988	7,000	8	
Total	861,360	534,455	Bhadol pulse ...	10,035	2,000	16	
			Cotton	2,634	2,000	16	
			Hemp	2,078	2,000	16	
Whole district	...	...	Indigo	6,300	6,200	16	
			Til (gingelly)	805	15,000	8	
			Miscellaneous (not included in the above).	15,915	15,000	8	
District Total	2,134,400	1,329,655	All bhadoi crops	139,079	144,534	16	
			Bhadol paddy ...	61,047	67,113	16	
			Millets	217,518	244,380	16	
Sadar	779,680	614,000	Indian-corn (maize)	138,436	140,770	16	
			Bhadol pulse ...	21,373	16,814	16	
			Cotton	329	12,314	16	
Total	778,520	614,000	Indigo	2,014	2,000	16	
			Til (gingelly)	12,073	15,000	16	
			Miscellaneous (not included in the above).	94,569	87,528	16	
Hajipur	463,440	338,000	All bhadoi crops	643,840	559,237	16	
			Bhadol paddy ...	50,000	40,000	16	
			Millets	2,000	2,000	16	
Total	463,440	338,000	Indian-corn (maize)	32,000	30,000	16	
			Bhadol pulse ...	4,000	4,000	16	
			Cotton	2,000	2,000	16	
Hajipur	463,440	338,000	Indigo	3,000	2,000	16	
			Til (gingelly)	75,000	75,000	16	
			Miscellaneous (not included in the above).	8,000	8,000	16	
Total	463,440	338,000	All bhadoi crops	187,240	170,000	16	
			Bhadol paddy ...	42,200	50,000	16	
			Millets	2,500	2,500	16	
Hajipur	463,440	338,000	Indian-corn (maize)	51,600	40,000	16	
			Bhadol pulse ...	2,000	2,000	16	
			Cotton	1,000	2,000	16	
Total	463,440	338,000	Indigo	1,600	48,000	16	
			Til (gingelly)	48,800	48,000	16	
			Miscellaneous (not included in the above).	1,600	1,500	16	
Hajipur	463,440	338,000	All bhadoi crops	89,400	50,000	16	
			Bhadol paddy ...	180,300	197,000	16	
			Millets	197,000	197,000	16	
Total	463,440	338,000	Indian-corn (maize)	180,300	197,000	16	
			Bhadol pulse ...	180,300	197,000	16	
			Cotton	180,300	197,000	16	
Total	463,440	338,000	Indigo	180,300	197,000	16	
			Til (gingelly)	180,300	197,000	16	
			Miscellaneous (not included in the above).	180,300	197,000	16	

The decrease in the area sown this year as compared with the figures in column 7, is due to the fact that in the last year's forecast the area was very disproportionate. The figures have now been revised and should be taken as approximately correct.

The material falling in the estimated cuttings of this year is due to damages caused by the continued rains and unprecedented high floods.

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each <i>bhadol</i> crop in acres.	Approximate area under each of the last year's <i>bhadol</i> crops in acres.	Estimated area under each of this year's <i>bhadol</i> crops in acres.	Taking 16 annas to represent the average outturn, how many annas will represent outturn last year?	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Muzaffarpur —consid.	Siwanathi	648,000	893,000	Bhadol paddy " " " " Indian-corn (maize) Bhadol pulse " " " " Cotton " " " " Hemp " " " " Indigo " " " " Miscellaneous (not included in the above.)	31,000 2,500 40,000 6,000 6,000 5,000 8,200 13,000 18,400 3,200 73,000	39,000 26,200 6,400 8,400 8,200 13,400 3,200 42,000	39,000 2,200 40,000 6,000 2,000 13,000 3,000 73,000	17	4		
	Total	648,000	483,000	All <i>bhadol</i> crops	173,000	173,000	173,000	17	64		
	Whole district...	1,021,000	1,445,000	Bhadol paddy " " " " " " Indian-corn (maize) Bhadol pulse " " " " Cotton " " " " Hemp " " " " Indigo " " " " Miscellaneous (not included in the above.)	120,000 7,000 113,000 12,000 12,000 11,000 1,800 137,000 177,000 12,500 5,000 140,000	120,000 2,000 122,000 12,000 12,000 11,000 1,800 137,000 177,000 12,500 5,000 140,000	120,000 2,000 122,000 12,000 12,000 11,000 1,800 137,000 177,000 12,500 5,000 140,000	17	6		
District Total...		1,021,000	1,445,000	All <i>bhadol</i> crops	310,000	340,700	341,000	17	6		



Saran	Sadar		638,720	561,366	Bhadai paddy Millets Indian-corn (maize) Bhadai pulse Jute Hemp Indigo Til (gingelly) Miscellaneous (not in- cluded in the above)	7,500 94,000 77,700 4,000 1,200 90,000 700 1,500	7,500 94,000 77,700 4,000 1,200 90,000 700 1,500	14	13		
Total			638,720	561,320	All bhadai crops	296,220	296,200	14	13		
Siwan			545,925	450,000	Bhadai paddy Millets Indian-corn (maize) Bhadai pulse Jute Cotton Hemp Indigo Til (gingelly) Miscellaneous (not in- cluded in the above)	16,000 75,200 90,000 5,000 1,100 3,500 2,000 12,000 800 1,700	8,000 96,000 75,800 5,000 1,100 3,500 1,000 12,000 800 700	15	13		
Total			545,925	450,000	All bhadai crops	203,200	204,500	15	13		
Gopalgunge			493,449	371,000	Bhadai paddy Millets Indian-corn (maize) Bhadai pulse Jute Cotton Hemp Indigo Til (gingelly) Miscellaneous (not in- cluded in the above)	21,000 12,200 85,800 11,500 6,200 8,200 5,800 19,000 5,000 34,000	21,000 12,200 85,800 11,500 6,200 8,200 5,800 19,000 5,000 34,000	14	15		
Total			493,449	371,000	All bhadai crops	210,800	210,800	14	15		
Whole district			1,673,085	1,382,500	Bhadai paddy Millets Indian-corn (maize) Bhadai pulse Jute Cotton Hemp Indigo Til (gingelly) Miscellaneous (not in- cluded in the above)	49,100 182,400 253,500 21,100 7,300 11,700 8,200 51,000 7,100 37,000	37,900 201,300 289,300 21,100 6,200 11,700 8,200 51,000 7,100 36,900	14	13		
District Total			1,673,085	1,382,500	All bhadai crops	622,300	616,900	14	13		

The omission of esti-  
mates of area under  
jute and cotton last  
year have been  
supplied by insert-  
ing the same figures  
as are given for this  
year.

Favourable rains at the time of sowing  
caused an increase in area of bhadai  
paddy and maska cultivation at the  
expense of the millets, hence the  
variation from last year's figures.  
Indian-corn has suffered from excess  
of rain, the increase in normal area  
shown in column 6 on last year's  
figures is due to the inclusion of  
figures for cotton and jute omitted  
last year.

We have a drier August than last  
year, and hence the crops are matur-  
ing nicely.

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each <i>Bhadol</i> crop in acres.	Approximate area under each of the last year's <i>bhadol</i> crops in acres.	Estimated area under each of this year's <i>bhadol</i> crops in acres.	Taking 10 annas to represent the average outturn, how many annas represented outturn last year?	Taking 10 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Champan	Sadar ...	971,520	654,000	Bhadol paddy Indian-corn (maize) Bhadol pulse Cotton Indigo Til (gingelly) Miscellaneous (not included in the above).	940,000 1,03,000 5,500 700 88,000 2,000 86,200	940,000 1,03,000 5,500 700 88,000 2,000 86,200	940,000 1,03,000 5,500 700 88,000 2,000 86,200	Annas. 10	The outturn will be less than the preceding year owing to the recent flood and heavy rain.		
	Total ...	971,520	654,000	All bhadol crops	426,300	426,300	426,300	14	10		
	Bottiah ...	1,288,320	709,000	Bhadol paddy Indian-corn (maize) Bhadol pulse Cotton Indigo Til (gingelly) Miscellaneous (not intended in the above).	102,100 64,000 500 300 13,000 1,000 3,800	102,100 64,000 500 300 13,000 1,000 3,800	102,100 64,000 500 300 13,000 1,000 3,800	14	13	Outturn somewhat less than in last year owing to heavy rains.	
	Total ...	1,588,320	708,000	All bhadol crops	276,700	276,700	276,700	14	13		

Whole district		2,250,540	1,422,000	Bhadai paddy ... Indian-corn (maize) ... Bhadai pulse ... Cotton ... Indigo ... Til (gingelly) ... Miscellaneous (not in- cluded in the above.)	442,000 162,000 4,000 1,000 54,000 3,400 30,000	442,000 162,000 4,000 1,000 54,000 3,400 30,000	442,000 162,000 4,000 1,000 54,000 3,400 30,000	114	
District Total		2,250,540	1,422,000	All bhadoi crops	703,000	703,000	703,000	114	
Monghyr	Sadar	997,730	635,200	Bhadai paddy ... Indian-corn (maize) ... Indigo ... Miscellaneous (not in- cluded in the above.)	80,000 230,000 470 9,600	80,000 230,000 470 9,600	80,000 230,000 470 9,600	16	Crops destroyed on account of ex- cessive rain and consequent flood.
	Total	997,730	635,200	All bhadoi crops	320,000	320,000	320,000	10	
	Jamui	1,010,820	515,300	Bhadai paddy ... Millets ... Indian-corn (maize) ... Bhadai pulse ... Cotton ... Hemp ... Indigo ... Til (gingelly) ... Miscellaneous (not in- cluded in the above.)	10,720 23,782 38,900 8,418 280 Nil 150 750 5,000	10,720 23,782 38,900 8,418 280 Nil 150 750 5,000	10,720 23,782 38,900 8,418 280 Nil 150 750 5,000	6	This year more than half the area could not be sown owing to the con- tinued unseasonable and excessive rain. Those sown and germinated were also much damaged by con- tinued rain, and hence an unavour- able outturn or 6 annas is expected this year. The sahi (bhadoi paddy) looks better, but its growth will depend on timely rainfall. The present break in the rains is looked forward with some alarm.
Total		1,010,820	515,300	All bhadoi crops	90,000	90,000	90,000	6	
Begusarai	Total	492,160	393,300	Bhadai paddy ... Millets ... Indian-corn (maize) ... Cotton ... Hemp ... Indigo ... Miscellaneous (not in- cluded in the above.)	20,000 41,200 144,900 10,300 10,300 61,800 41,200	20,000 41,200 144,900 10,300 10,300 61,800 41,200	20,000 41,200 144,900 10,300 10,300 61,800 41,200	8	Owing to excessive rain since the time of sowing of the bhadoi crops, the outturn is less than last year.
	Total	492,160	393,300	All bhadoi crops	320,000	320,000	320,000	8	

1	2	3	4	5	6	7	8	9	10	11	12
District	Sub division	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres	Number of crop	Approximate normal area under each bhadoi crop in acres	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres	Taking 10 minis to represent the average outturn how many minis is represented outturn last year?	Taking 10 minis to represent the average outturn how many minis will represent this year's outturn?	Remarks by the District Officers	Remarks by the Department of Land Records and Agriculture, Bengal.
Monghyr— Cane 1	W. le district	2 530,440	1 533 800	Bhad' paddy Millets Indian corn (maize) Bhad' pulse Cotton Hemp Indigo Til (gingelly) Miscellaneous (not included in the above.)	730,600	(111,230 64,492 413 100 5,415 11,500 10,300 63,550 750 53,400	109,590 51 2 3 945 400 500 10 700 10,400 63,550 801 51 300	154	9	Owing to excessive rain the outturn is less than last year's. The decrease of area sown is in Jamu sub-division and the reason assigned for this is that owing to rain, usual area could not be sown.	
Bhagalpur	District Total	2,530,440	1 533 800	All bhadoi crops	730,600	730,600	109,590	154	8	The quantity and distribution of rain fall were favourable to most of the crops grown in this season and accordingly the normal area was generally brought under cultivation, the only exception being in Surai where the area under mill is was reduced owing to excess of rain. The heavy and continuous showers of June and July also damaged the millets and Indian corn already grown and the outturn of these crops will be much below the average throughout the district. But the state and prospects of the bhadoi rice are everywhere reported to be good	
	Sadar	578 040	464,000	Bhad' paddy Millets Indian corn (maize) Bhad' pulse Jute Indigo Miscellaneous (not included in the above.)	128,000 4,500 120,500 100 500 9 000 500	128,000 4,500 120,500 100 500 9 000 500	128,000 4,500 120,500 100 500 9 000 500	14	13		
	Total	578 040	464,000	All bhadoi crops	128,000	128,000	128,000	14	13		

Bauka	765,40	688,000	Bhadon paddy Indian-corn (maize) Bhadon pulse Jute Cotton Hemp Indigo Til (mustard) Miscellaneous (not in- cluded in the above).	30,200 113,300 40,400 13,400 10,900 13,400 1,500 600 15,900	30,200 113,300 40,400 13,400 10,900 13,400 1,500 600 15,900	30,200 113,300 40,400 13,400 10,900 13,400 1,500 600 15,900	16 14 16 16 16 16 12 16 14	16 14 16 16 16 16 12 16 14
Total	765,40	688,000	All bhadon crops	242,500	242,500	242,500	16	11
Madhura	581,700	451,000	Bhadon paddy Indigo Miscellaneous (not in- cluded in the above).	84,000 1,600 28,600	84,000 1,600 28,600	84,000 1,600 28,600	14 13 16	18 16 12
Total	581,700	451,000	All bhadon crops	113,500	113,500	113,500	16	16
Surpaul	768,750	594,000	Bhadon paddy Wilets Jute Cotton Indigo Til (mustard) Miscellaneous (not in- cluded in the above).	74,800 76,200 5,700 3,200 1,000 3,200 6,400	74,800 76,200 5,700 3,200 1,000 3,200 6,400	74,800 76,200 5,700 3,200 1,000 3,200 6,400	17 14 16 14 14 16 16	17 8 16 16 14 16 16
Total	768,750	594,000	All bhadon crops	170,500	170,500	170,500	15	13
Whole district	2,705,050	2,007,000	Bhadon paddy Wilets Indian-corn (maize) Bhadon pulse Jute Cotton Hemp Indigo Til (mustard) Miscellaneous (not in- cluded in the above).	317,000 86,700 242,600 46,500 19,000 14,000 13,400 1,800 58,800	317,000 86,700 242,600 46,500 19,000 14,000 13,400 1,800 58,800	317,000 86,700 242,600 46,500 19,000 14,000 13,400 1,800 58,800	16 14 14 15 15 16 16 17	17 5 7 16 16 18 14 16 13
District Total	2,705,050	2,007,000	All bhadon crops	788,400	787,600	791,700	15	13

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each <i>bhadol</i> crop in acres.	Approximate area under each of the last year's <i>bhadol</i> crops in acres.	Estimated area under each of this year's <i>bhadol</i> crops in acres.	Taking 16 annas to represent the average outturn, how many annas represented outturn last year?	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Board.
Purnea	Sadar	1,640,050	700,000	Bhadol paddy Indian-corn (maize) ... Bhadol pulse ... Jute ... Indigo ... Miscellaneous (not included in the above.)	255,000 3,500 2,500 5,000 37,000 20,000	250,000 4,000 2,000 5,000 37,000 20,000	250,000 4,500 2,500 6,000 38,000 20,000	Annas 15 15 16 16 16 16	Annas 15 15 16 16 16 16	The rainfall during the ploughing, sowing, and weeding seasons was more than was necessary resulting in early floods which damaged to a certain extent the crops on the low lands. This loss, however, has to a great extent been made up by the bumper outturn of the high lands. The increase in area is due to extension of cultivation.  After the plants came up, there was too much sunshine which caused some injuries to them. The excessive rain in June 1903, which caused too much accumulation of water in the field, interfered with the thriving of the stems which became much shorter and thinner than in the past year. This contributed to reduce the outturn as compared with that of last year.	
	Total	1,646,060	700,000	All <i>bhadol</i> crops	348,000	348,000	351,000	16	14		
	Kishanganj	857,600	58,000	Bhadol paddy Jute ...	100,400 84,000	101,500 33,000	101,500 33,000	18 18	18 14		
		857,600	580,000	All <i>bhadol</i> crops	148,400	134,500	134,500	15	16		
	Arrah	668,100	410,000	Bhadol paddy Jute ...	160,000 8,000	160,000 8,000	160,000 8,000	16 16	16 16	There has been a sufficient and timely rainfall this year. The outturn would have been even above 16 annas had it not been for floods from the Kosi river which damaged the crops to a certain extent in riparian tracts.	

	Total	Whole District	District Total	Indigo Miscellaneous (not in- cluded in the above.)	100 500	100 500	100 500	100 500	10 15	10 15	The low return of Indigo is due to damage from flood.
Mulla	Total	628,160	410,000	Indigo Miscellaneous (not in- cluded in the above.)	100 500	100 500	100 500	100 500	10 15	10 15	
	Whole District	3,171,540	1,730,000	All bhadoi crops	100 500	100 500	100 500	100 500	10 15	10 15	
	District Total	3,171,540	1,730,000	Bhadoi paddy	500 100	500 100	500 100	500 100	10 15	10 15	
	Whole district	1,210,000	611,500	Indian-corn (maize)	500 100	500 100	500 100	500 100	10 15	10 15	The rainfall at the time of ploughing and sowing was rather heavy and was followed by sun-burn for a longer period than was needed. The last week June was heavy and in- sufficient for sowing and the crops on the low lands were to a certain extent damaged. The crops on the high lands, however, were very suc- cessful and yielded a bumper crop. The increase in area is due to extension of cultivation.
South Pat- na.	District Total	1,210,000	611,500	All bhadoi crops	500 100	500 100	500 100	500 100	10 15	10 15	
	Whole district	1,210,000	611,500	Bhadoi paddy	500 100	500 100	500 100	500 100	10 15	10 15	
	Punka	911,000	1,210,000	Indian-corn (maize)	500 100	500 100	500 100	500 100	10 15	10 15	The early rainfall was favourable for tillage and sowing of bhadoi crops, but their return has been affected by subsequent heavy and continued rain.
	Total	911,000	1,210,000	Bhadoi pulse	500 100	500 100	500 100	500 100	10 15	10 15	
Deochar	Total	310,000	1,210,000	Cotton	500 100	500 100	500 100	500 100	10 15	10 15	
	Whole district	310,000	1,210,000	Indigo	500 100	500 100	500 100	500 100	10 15	10 15	
	District Total	310,000	1,210,000	Miscellaneous (not in- cluded in the above.)	500 100	500 100	500 100	500 100	10 15	10 15	
	Total	310,000	1,210,000	All bhadoi crops	500 100	500 100	500 100	500 100	10 15	10 15	Excessive rain has caused consider- able damage.

1	2	3	4	5	6	7	8	9	10	11	12
DISTRICT.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of the last year's bhadoi crops in acres.	Taking 10 annas to represent the average outturn, how many annas represented outturn last year?	Taking 10 annas to represent the average outturn, how many annas will represent this year's outturn.	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
South Parganas— <i>contd.</i>	Golda	612,550	422,890	Bhadoi paddy ...	11,200	10,320	6,500	Annas. 12	Annas. 14	The figures given in columns 6 and 7 are revised figures obtained by local enquiry by the Sub-divisional Officer. The decrease in the area sown this year is due to the excessive rain, which has also affected the outturn.	
				Millets ...	10,100	7,260	4,320	10	6		
				Indian-corn (maize) ...	11,800	11,570	8,800	10	12		
Total				Bhadoi pulse ...	1,400	1,300	770	10	12		
				June ...	200	300	200	10	12		
				Cotton ...	200	200	100	10	12		
Rajmahal		475,600	855,200	Bhadoi paddy ...	3,800	2,700	3,520	10	12	Excessive and untimely rain has damaged the bhadoi crops, even what were sown, and a good deal of land could not at all be sown.	
				Millets ...	15,000	15,700	10,100	16	12		
				Indian-corn (maize) ...	25,500	25,200	20,600	16	12		
				Bhadoi pulse ...	5,100	5,100	2,100	16	12		
				Cotton ...	500	500	500	16	12		







Kendrapara	911,360	410,340	Bhadai paddy Bhadai pulse Jute Cotton Til (gingelly) Miscellaneous (not included in the above).	64,640	53,910	53,800	11	10	
Total	911,360	410,340	All bhadai crops	74,260	63,360	63,540	11	10	
Bank	75,030	37,290	Bhadai paddy	6,400	2,200	6,400	8	10	
Total	75,030	37,290	All bhadai crops	6,400	2,200	6,400	8	10	
Whole district	2,325,910	1,161,365	Bhadai paddy Bhadai pulse Jute Cotton Hemp Indigo Til (gingelly) Miscellaneous (not included in the above)	105,513	151,465	154,465	10	33	
District Total	2,325,910	1,161,365	All bhadai crops	296,613	185,340	185,360	10	12	
Sadar	741,120	448,000	Bhadai paddy Jute Cotton Til (gingelly)	25,090	25,390	25,390	10	12	
	741,120	448,000	All bhadai crops	30,574	29,574	27,000	11	12	

(a) Figures corrected upwards to final forecast of yield return. The excessive rain has affected the area under bhadai crops this year in the Sadar Bahadur.

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop	Approximate normal area under each bhadoi crop in acres	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres	Taking 16 annas to represent the average outturn how many annas represented outturn last year?	Taking 16 annas to represent the average outturn how many annas will represent this year's outturn?	Remarks by the District officer.	Remarks by the Department of Land Records and Agriculture, Bengal.
Balasore— contd	Bhadrak	51,254	389,100	Bhadoi paddy— June Cotton ..	64 50 (b) 1,000 650	61 000 (b) 1,250 000	61 000 1,250 650	14 16 12	14 16 12	(b) The normal and approximate area under jute crop last year was shown as 190 by mistake in the preliminary forecast of bhadoi crop for that year. (c) 3 616 acres were erroneously shown for 19 acres in the forecast of bhadoi crop last year (d) In the said return the outturn of jute was erroneously shown 15 for 14 annas.	
	Whole district	51,254	389,100	Til (gingelly) All bhadoi crops	(b) 19 9	(c) 19 65 949	19 65 949	14 (d) 14 144	14 15		
	District Total	1 322 404	837,100	Bhadoi paddy— June Cotton Til (gingelly)	80 800 8 500 900 2 100	80 800 8 100 900 2 100	80 800 8 100 900 1 623	13 14 14 154	13 14 14 154		
	Angul and Khondmals	585,000	132,500	Bhadoi paddy, Khatia Indian corn (maize) June Cotton Til (gingelly) Miscellaneous (not included in the above)	7 000 3 000 1 000 5 000 3 000 3 000	7 000 3 000 12 000 5 000 3 000 3 000	7 000 3 000 1 000 5 000 3 000 3 000	4 16 16 16 16 16	4 16 16 16 16 16	* The alterations have been made in consequence of change in (a), (b) and (c) The full normal area estimated for bhadoi crops is supposed to have been cultivated this year. Last year a part was left out for want of sufficient seasonable rain.	
Total		585,000	132,500	All bhadoi crops	50 000	12 800	80 000		12		

Pura	Sadar	970 200	460 300	47 300	47 300	47 300	46 400	7 6	9 9	
	Total	970 200	460 300	47 300	47 300	47 300	46 400	7 6	9 9	The reason of increase in columns 4 and 6 is that some new land has been brought under cultivation in Khurda. The cultivation of cotton and mandia decreased in consequence of excessive rainfall in May. Last year the cotton was small in consequence of deficient rainfall and damage done by flood. This year the excessive rainfall in May retarded sowing in Sadar. It did not affect Khurda the lands there being high.
	Khurda	633 720	267 300	22 460	22 460	22 460	22 460	6	14	
	Total	633 720	267 300	22 460	22 460	22 460	22 460	6	14	
	District Total	1 612 920	728 100	137 060	137 060	137 060	137 060	6	10	
Borough	Sadar	2 928 000	1 659 300	412 079	412 079	412 079	412 079	20	94	The decrease in the cotton is due to the seeds not properly germinating and thriving under excessive and continual rains all along.
	Total	2 928 000	1 659 300	412 079	412 079	412 079	412 079	20	94	
	Chitab	1 745 140	919 200	58 500	58 500	58 500	58 500	14	8	The decrease in the area under other crops is due to the rains being heavy and continual the whole area could not be brought under cultivation.
	Total	1 745 140	919 200	58 500	58 500	58 500	58 500	14	8	
	Ward district	4 403 440	2 478 500	43 297	43 297	43 297	43 297	11	11	Owing to the unusual rainfall there is a failure of cotton. The area cultivated remains the same as last year.
	District Total	4 403 440	2 478 500	43 297	43 297	43 297	43 297	11	11	

1	2	3	4	5	6	7	8	9	10	11	12
DISTRICT	Sub-division.	Total area of sub-division in acres.	Total area cultivated to be under cultivation in acres.	Name of crop	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crop in acres.	Estimated area under each of this year's bhadoi crops in acres	Taking 16 annas to represent the average outturn how many annas represented outturn last year?	Taking 16 annas to represent the average outturn how many annas will represent it in year's outturn?	Remarks by the District officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Lohardaga ...	Whole d strict	4,569,960	2,886,390	Bhadi paddy Indian-corn (maize) Bhadi pulse Cotton Til (gingelly) Miscellaneous (not included in the above)	42,910 8,000 88,000 11,000 1,070 225,500	84,000 8,000 88,000 11,000 1,000 225,500	842,300 8,000 88,000 11,000 1,000 225,500	14	12	There was excessive rain at sowing time which prevented the full area being sown and excessive rain afterwards water logged the plains and produced a luxuriant growth of weeds which choked a great deal of the crop	
	District Total	4,569,960	2,886,390	All bhadoi crops	1,178,400	1,178,400	1,178,400	14	12		
Palamu	Whole district	3,159,300	788,000	Bhadi paddy Millet Indian-corn (maize) Bhadi pulse Jute Cotton Til (gingelly) Miscellaneous (not included in the above)	40,000 2,000 93,000 28,000 5,000 10,000 19,000 48,000	40,000 2,000 93,000 28,000 5,000 10,000 19,000 48,000	23,854 2,789 27,911 9,961 2,098 7,927 11,912 34,196	16	9		
	District Total	3,159,300	788,000	All bhadoi crops	256,000	256,000	117,821	10	6		
Manbhum ...	Sadar	2,140,160	784,194	Bhadi paddy Millet Indian-corn (maize) Bhadi pulse Jute Cotton Indigo	3,000 16,500 16,400 18,322 28,600 51,970 2,750	3,000 16,500 16,400 18,322 28,600 51,970 2,750	3,000 16,500 16,400 18,322 28,600 51,970 2,750	13	13	All the crops suffered more or less owing to heavy rains this year	
	District Total	2,140,160	784,194	All bhadoi crops	256,000	256,000	117,821	10	6		

District Total ...	2,140,160	784,194	Til (singelly) ... Miscellaneous (not in- cluded in the above).	1,500 83,541	1,500 83,541	170,113	170,113	1,500 83,541	1,500 83,541	12 12	12 12	8
Gobindpur ...	513,920	171,306	All bhadoi crops ...	1,000 5,000 2,000 4,000 8,000 500 31,120	1,000 5,000 2,000 4,000 8,000 500 31,120	170,113	170,113	1,000 5,000 2,000 4,000 8,000 500 31,120	1,000 5,000 2,000 4,000 8,000 500 31,120	16 16 16 16 16 16 16	16 16 16 16 16 16 16	6 2 2 2 2 2 4
District Total ...	513,920	171,306	All bhadoi crops ...	56,150	56,150	56,150	56,150	56,150	56,150	16	16	3
Whole district ...	2,654,080	955,500	Bhadoi paddy ...	4,000	4,000	4,000	4,000	4,000	4,000	10	10	9
			Millet ...	22,000	22,000	22,000	22,000	22,000	22,000	16	16	4
			Indian-corn (maize) ...	22,000	22,000	22,000	22,000	22,000	22,000	16	16	4
			Bhadoi pulse ...	22,332	22,332	22,332	22,332	22,332	22,332	10	10	5
			Jute ...	26,800	26,800	26,800	26,800	26,800	26,800	...	...	...
			Cotton ...	40,000	40,000	40,000	40,000	40,000	40,000	6	6	...
			Indigo ...	2,750	2,750	2,750	2,750	2,750	2,750	12	12	8
			Til (singelly) ...	2,000	2,000	2,000	2,000	2,000	2,000	12	12	7
			Miscellaneous (not in- cluded in the above.)	84,661	84,661	84,661	84,661	84,661	84,661	13	13	7
District Total ...	2,654,080	955,500	All bhadoi crops ...	229,363	229,363	229,363	229,363	229,363	229,363	13	13	64
Whole district...	2,654,720	118,373	Bhadoi paddy ...	68,333	68,333	68,333	68,333	68,333	68,333	13	13	13
			Millet ...	1,300	1,300	1,300	1,300	1,300	1,300	...	...	...
			Indian-corn (maize) ...	11,765	11,765	11,765	11,765	11,765	11,765	13	13	13
			Bhadoi pulse ...	10,939	10,939	10,939	10,939	10,939	10,939	...	...	...
			Cotton ...	9,731	9,731	9,731	9,731	9,731	9,731	...	...	...
			Til (singelly) ...	18,743	18,743	18,743	18,743	18,743	18,743	...	...	...
			Miscellaneous (not in- cluded in the above.)	25,480	25,480	25,480	25,480	25,480	25,480	...	...	...
District Total ...	2,454,720	118,273	All bhadoi crops ...	139,739	139,739	139,739	139,739	139,739	139,739	12	12	13
Whole Bengal (exclusive of Puri and Angul).	96,406,040/8	54,336,916	Bhadoi paddy ...	7,371,133	7,371,133	7,371,133	7,371,133	7,371,133	7,371,133	144	144	114
			Millet ...	1,021,817	1,021,817	1,021,817	1,021,817	1,021,817	1,021,817	13	13	94
			Indian-corn (maize) ...	2,203,838	2,203,838	2,203,838	2,203,838	2,203,838	2,203,838	154	154	9
			Bhadoi pulse ...	631,527	631,527	631,527	631,527	631,527	631,527	13	13	10
			Jute ...	2,172,177	2,172,177	2,172,177	2,172,177	2,172,177	2,172,177	144	144	134
			Cotton ...	163,646	163,646	163,646	163,646	163,646	163,646	15	15	11
			Hemp ...	117,464	117,464	117,464	117,464	117,464	117,464	15	15	13
			Til (singelly) ...	646,397	646,397	646,397	646,397	646,397	646,397	144	144	10
			Miscellaneous (not in- cluded in the above.)	309,161	309,161	309,161	309,161	309,161	309,161	13	13	94
			All bhadoi crops ...	1,323,376	1,323,376	1,323,376	1,323,376	1,323,376	1,323,376	144	144	104
Puri and Angul ...	2,198,829	864,600	All bhadoi crops ...	15,790,578	15,790,578	15,790,578	15,790,578	15,790,578	15,790,578	144	144	11
			Ditto	149,900	149,900	149,900	149,900	149,900	149,900	64	64	13
Total Bengal ...	96,603,869/8	55,193,516	Ditto	...	...	...	...	...	...	144	144	11

I consider the figures supplied from  
this sub-division are too low.

## APPENDIX II.

*Statement showing serious decreases in area sown in bhadoi food-crops, 1893, as compared with that sown in 1892.*

District.	Sub-division.	Area of 1892.	Area of 1893.	Falling off.	REMARKS.
		Acres.	Acres.	Acres.	
Nadia ...	Kushtea ...	45,500	40,000	5,500	} The decrease is due to abnormal rainfall.
Jessore ...	Meherpore ...	121,000	95,000	26,000	
Patna ...	Bongong ...	180,000	80,000	100,000	
Jaipalguri ...	Sadar ...	64,000	58,500	5,500	
Nonkhali ...	Alipur ...	58,700	58,700	0	} Ditto.
	Sadar ...	152,300	133,300	19,000	
	Do. ...	27,833	23,656	4,177	
	Bark ...	36,925	25,025	11,900	
Patna ...	Bihar ...	121,160	109,000	12,160	} Ditto.
	Buxar ...	34,745	19,800	14,945	
Shahabad ...	Sasaram ...	60,358	24,150	36,208	
	Sadar ...	87,000	72,000	15,000	
Muzaffarpur ...	Sitamarhi ...	96,800	72,500	24,300	} Ditto.
Monghyr ...	Jamui ...	73,402	39,350	34,052	
	Godda ...	31,800	21,000	10,800	
Sonthal Parganas	Rajmahal ...	56,700	43,600	13,100	
	Pakour ...	110,520	87,280	23,240	} Ditto.
Palamau ...	.....	135,000	51,324	83,676	

## APPENDIX III.

*Statement showing sub-divisions and districts in which bhadoi food-crops of 1893 are estimated at 8 annas only or less.*

District.	Sub-division.	Estimate of outturn in annas.	REMARKS.
Midnapore ...	Coutai ...	7	} The loss is due to excessive rain fall. Ditto ditto.
Hoochly ...	Uluberia ...	8	
24-Parganas ...	Diamond Harbour ...	4	
			} The loss is due to excessive rainfall. The bhadoi food crops in this sub-division occupy a small area (about 8,000 acres), and are unimportant.
Khulna ...	Ragihat ...	2	
Nadia ...	Kushtea ...	8	
Jessore ...	Jhenida ...	8	} The loss is due to excessive rains, and early rise of the rivers.
	Narail ...	6	
Dacca ...	Sadar ...	7	
	Narsinganj ...	8	} Excessive rain and high floods damaged the crops.
	Manickganj ...	6	
Faridpur ...	Sadar ...	6	
	Goalundo ...	8	} The loss is due to high floods. The crops were destroyed on about one-half the area. Much of the area could not also be sown owing to accumulation of water in the beds.
	Madaripur ...	5	
Backergunge ...	Sadar ...	2	} The loss is due to heavy and continuous rain fall and unusual floods.
	Patuakhali ...	8	
	Pirojpur ...	8	
	Bhoala ...	2	} Ditto ditto.
Mymensingh ...	Sadar ...	8	
	Netrokona ...	8	
Tippera ...	Sadar ...	8	} Ditto ditto.
	Chandpur ...	6	
	Sadar ...	6	
Nonkhali ...	Hill Tracts ...	7	} The loss is due to abnormally heavy rainfall. The area cropped is very small.
Patna ...	Bark ...	6	
	Dinapur ...	6	
Gaya ...	Sadar ...	7	} Ditto ditto.
	Jahanabad ...	8	
	Sasaram ...	5½	
Shahabad ...	Sadar ...	4	} The damage is due to heavy floods.
Darbhanga ...	Sadar ...	5	
Muzaffarpur ...	Sadar ...	7	
	Hazipur ...	7	} The damage is due to excessive rainfall.
	Sitamarhi ...	6½	
	Jamui ...	2	
Monghyr ...	Regusarai ...	8	} Ditto ditto.
	Sadar ...	4	
	Godda ...	8	
	Rajmahal ...	7	} Ditto ditto.
	Jamtara ...	7	
	Pakour ...	6	
Hazaribagh ...	Sadar ...	6½	} Ditto ditto.
	Giridih ...	6½	
Palamau ...	.....	5½	
Manbhum ...	Sadar ...	5½	} Ditto ditto.
	Govindpur ...	2½	



WORKING OF CHARITABLE DISPENSARIES IN BENGAL DURING  
THE YEARS 1890-92.

MUNICIPAL DEPARTMENT, MEDICAL—No. 225T.M.

*Darjeeling, the 3rd October 1893.*

RESOLUTION.

READ—

The Triennial Report on the working of the Charitable Dispensaries in Bengal for the years 1890, 1891, and 1892.

Read also—

The Triennial Report for the years 1887, 1888, 1889, the annual returns for 1890 and 1891, and the Resolutions recorded upon them.

The present report has been submitted under the triennial system, being the second of that series, and therefore contains much more matter than the brief reports which, in each of the last two years, have accompanied the figures of the previous twelve months: this is no doubt one reason for the delay in the submission of the report which did not reach Government till long after the due date. During the three years under review, the medical administration of the Province has undergone several improvements: not only has the number of dispensaries greatly increased, but at some places separate hospitals have been established for the treatment of female patients, the Dispensary Manual has been thoroughly revised, and there has been a large increase in surgical operations. On the whole, there has been throughout the Province a general and satisfactory development of medical administration.

2. *Number of dispensaries.*—The number of dispensaries has increased from 261 on the 31st December 1889 to 310 at the end of 1892. Almost all the new institutions belong to classes II and III, viz., other than purely State dispensaries—a circumstance which indicates that local bodies and private individuals have shown greater interest in affording medical relief to the people; indeed the number of dispensaries maintained solely from local funds advanced from 125 to 160. Looking to the large population of the Province, however, the number of existing dispensaries is still far too small to meet the requirements of the people. The figures in the margin give for each Division the number of persons to each dispensary, and they show that the Chittagong Division is best supplied, while Bhagalpur and Patna are at the other end of the scale. In all the Divisions the provision for medical relief is still quite inadequate, and the Lieutenant-Governor fears that it will be long before the local bodies will be able fully to supply this want.

Burdwan	...	219,682
Presidency	...	174,523
Rajshahi	..	170,821
Dacca	...	273,415
Chittagong	...	151,214
Patna	.	316,220
Bhagalpur	...	357,603
Orissa	..	213,018
Chota Nagpur	...	289,299

3. *Officers in charge of dispensaries.*—Of the 299 dispensaries from which returns have been received, 193 were under the immediate charge of medical subordinates of the Government establishment, and 106 were under local native doctors, so that on the 31st December 1892 Government medical officers held charge of about two-thirds of the institutions. Local bodies generally prefer to employ medical subordinates of the Government establishment in their dispensaries, and it is only when they are unable to meet the pay of these officers that they appoint their men locally under rule 9 of the Dispensary Manual. This action, however, sometimes causes inconvenience not only to the dispensary authorities, but also to Government, which has to provide for the men replaced by local native doctors. A somewhat similar inconvenience arises when an officer paid from local funds is promoted, and his employers find themselves unable to meet the extra cost of his enhanced pay. In the Resolution on the medical institutions of Calcutta, it was pointed out how small a part of the great stream of native charity was turned towards the endowment of medical institutions. Sir Antony MacDonnell desires again to bring the subject to the

attention of the wealthy and the benevolent in these Provinces. Charity cannot be better exercised than in the extension of medical relief to suffering humanity.

4. *Inspections*.—Although there has been some improvement in the number of inspections made by Civil Surgeons, the figures are still unsatisfactory. Under rule 29 of the Dispensary Manual, a Civil Surgeon is required to visit each dispensary in his district at least four times a year: in no year, however, was more than half the number of dispensaries visited by these officers four times. In a district which is so large as Mymensingh, or so well provided with dispensaries as the 24-Parganas, the rule may doubtless be relaxed, but in ordinary cases, although it may be inconvenient to leave the Sadar station, and sometimes serious cases of illness forbid it, the Lieutenant-Governor desires that the attention of Civil Surgeons should be drawn to the necessity of carrying out the rule, more especially as these visits have by recent orders to be utilized for the supervision of vaccination operations also.

5. *Patients*.—The Inspector-General of Civil Hospitals gives an elaborate table showing for each district and division the total number of indoor and outdoor patients treated during the year and their ratio to population, and the general result is abstracted below:—

YEARS	PATIENTS			Population of the Province	Ratio per cent of total treated to population.
	Indoor	Outdoor	Total treated.		
1	2	3	4	5	6
1890	29 660	1,239 850	1,269 510	70,665,427	1 79
1891	30 859	1,460 195	1,496,054		2 12
1892	37,845	1,575 926	1,613,771		2 28
	103,364	4,275 971	4,379,335	70,665 427	6 19

N.B.—This is exclusive of the population of Calcutta, but is inclusive of that of the Chittagong Hill Tracts

There has been a steady increase in the number of patients of both classes, but, as has been already pointed out, the proportion of those treated to the total population is still very small, due no doubt to the comparative fewness of the dispensaries. Even if it be conceded that each institution supplies the wants of the population in a circle of five-mile radius, the influence of the 310 existing dispensaries extends over less than one-fifteenth part of the total area of Bengal.

6. *Indoor patients*.—About half the dispensaries (148) in the Province received indoor as well as outdoor patients, and the total number of indoor patients treated has advanced from 28,981 in 1889 to 37,845 in 1892—an advance of 30·6 per cent. The increase is satisfactory so far as it goes, but the figures are small in comparison with the results in other Provinces, and it is clear that full advantage is not taken of the accommodation provided, for out of 2,357 beds available during the year 1892 for indoor patients of both sexes, the daily average of occupants was only 1,535. The explanation is probably to be found in the remarks quoted in paragraph 5 of the Resolution on the last triennial report, and there can be little doubt that, if proper provision were made near the dispensaries for the accommodation of the relatives of patients, more satisfactory results would be obtained: the attention of municipalities has already been drawn to the point. The death-rate among the in-patients was very high, being 12·85, 13·31 and 13·49 respectively in the three years under review, and is said to be due to the unavoidable admission of a large number of patients in a hopelessly advanced stage of disease: this is specially the case in the dispensaries at Balasore, Puri, Deoghur, Raniganj, Midnapore and Chandbally, which lie on the main pilgrim routes. The death-rate is also further increased by the number of severely injured persons brought to dispensaries by the police. Sir Antony MacDonnell's experience is that the admission of moribund patients, and generally pauper patients, to the wards of a hospital very seriously detracts from the popularity of the institution, and he has found it most useful to attach a separate house or hut or other suitable accommodation to the hospital for the reception of moribund cases

and for the shelter of pauper patients: for the latter the accommodation would be in the nature of a poor-house ward. He commends this arrangement to the attention of all Civil Surgeons and Hospital Committees.

7. *Outdoor patients.*—There was a steady increase during the three years under review in the attendance of outdoor patients, equivalent to 396,083 or 33·5 per cent. on the total of 1889—the actual figures being 1,239,850, 1,460,195 and 1,575,926. The improvement is satisfactory, and points to the increasing popularity of mufassal dispensaries. In the Resolution recorded on the last triennial report, the Lieutenant-Governor commented on the smallness of attendance at some of these institutions: on this subject Dr. Pilcher has recorded the following remarks:—

“Enquiries satisfy me that there is a much larger number of persons in proportion to the population practising medicine in Bengal than in either the North-Western or Central Provinces, and the people in Bengal can more readily obtain medical aid at their own houses and for a very trifling expenditure. It is also the custom in Bengal for the well-to-do practitioners to give advice and medicine gratuitously to the poor. Individual instances of want of civility, energy, or attention on the part of medical subordinates in charge of a dispensary may have occurred, but in no district could the low attendance be attributed solely to the personal failings of the subordinate medical officer in charge.”

8. The Lieutenant-Governor is glad to observe that sixteen dispensaries had an average daily attendance of 100 or more in 1892 as against twelve in 1889. The attendance at those which have been most conspicuous for steady progress during the past three years is given below, and Sir Antony MacDonnell congratulates the managing body of each of them on the great benefits to the public which these figures imply. The popularity of the Hathuwa dispensary must be gratifying to the Maharaja, who supports it entirely at his own expense.

DISPENSARY AND DISTRICT.	TOTAL NUMBER OF OUTDOOR PATIENTS TREATED.		
	1890.	1891.	1892.
Chapra (Saran)	26,305	27,750	29,780
Laheria Serai (Darbhanga)	14,616	19,934	25,316
Dacca (Dacca)	18,055	19,650	20,317
Hathuwa (Saran)	15,222	19,460	20,294
Gaya (Gaya)	11,312	13,240	14,535
Kurigram (Rangpur)	8,981	11,565	12,266
Sujamutha (Midnapore)	2,684	3,475	8,767
Nator (Rajshahi)	3,880	7,474	8,674
Tangail (Mymensingh)	6,381	7,834	8,610
Mymensingh (do.)	5,761	7,454	8,275
Nasirganj (Shahabad)	4,875	6,425	8,040
Chowdagram (Tippera)	1,965	4,444	8,014
Digwara (Saran)	5,865	6,510	7,620
Goalundo (Faridpur)	5,273	6,188	7,244
Jangipur (Murshidabad)	2,995	3,815	4,036
Kishanganj (Purnea)	1,356	2,846	3,772
Mattab (Tippera)	1,760	2,700	3,426
Nasirnagore (do.)	648	1,800	3,550
Nabinagar (do.)	1,317	2,261	3,353
Diamond Harbour (24-Parganas)	950	1,233	2,137

9. Some doubts have been expressed by Government of the propriety of supplying medicines to patients represented through their friends or relatives, but from the explanation now afforded by the Inspector-General of Civil Hospitals, the Lieutenant-Governor is satisfied that in most cases the practice is not likely to lead to abuse.

10. *Diseases treated.*—The report contains detailed statistics of the diseases treated at the dispensaries of the Province. Malarial fever of course contributes the largest number of cases to the sick list. It is well known that the

high temperature which accompanies many disorders of the body is frequently represented as the cause and not the consequence of illness, so that many cases are improperly ascribed to malarial fever which should be attributed to some other specific ailment; but even making allowance for those mistakes, the fever which is endemic in Bengal yearly claims a majority of the patients in the dispensaries in the Province, and of the deaths in the returns of mortality. The number of outdoor fever patients relieved in each of the years 1890, 1891 and 1892 was respectively 267,003, 327,969 and 320,113, giving a percentage on the total outdoor patients of 21·03, 21·92, and 19·03. In the Resolution on the report of the Sanitary Commissioner for 1892, the Lieutenant-Governor has already noticed the ravages of this disorder, and expressed his conviction that the true remedies for the deplorable loss of life which it causes year by year are the improvement of drainage and the supply of pure water, and those observations need not be repeated here; it will be enough to reproduce from Dr. Pilcher's report the following table giving for each Division the statistics of fever cases treated in the dispensaries. They demonstrate clearly the general accuracy of the conclusions arrived at by the Sanitary Commissioner, and confirm the observations of the Superintendent of Census as to the great insalubrity of large tracts in the Burdwan, Rajshahi and Presidency Divisions:—

	1890.		1891.		1892.	
	Number of cases of malarial fever.	Percentage to total treated.	Number of cases of malarial fever.	Percentage to total treated.	Number of cases of malarial fever.	Percentage to total treated.
1	2	3	4	5		
Burdwan ...	47,996	30·61	58,973	32·67	51,036	28·08
Presidency ...	54,160	33·93	68,142	36·19	58,620	30·19
Rajshahi ...	43,762	27·01	60,692	30·2	55,097	26·55
Orissa ...	13,279	16·59	14,953	18·15	14,118	15·96
Dacca ...	17,609	13·6	22,047	13·71	24,278	13·39
Chuttagong ...	9,538	16·88	9,615	11·18	11,270	10·39
Patna ...	56,168	14·22	64,235	14·41	75,462	15·28
Bhagalpur ...	19,278	19·45	23,496	20·72	23,689	20·69
Chota Nagpur ...	5,233	16·18	5,817	15·25	6,553	14·82

11. As usual, very few cases of small-pox were brought for treatment, the number being 103 cases in 1890, 165 in 1891, and 191 in 1892. Dr. Pilcher correctly states that the people are naturally averse to remove a relative suffering from this disease from their homes, especially as a religious prejudice is connected with it. The number of cholera cases shows an increase from 6,360 in 1890 to 9,402 in 1891 and 9,795 in 1892. The advance was remarkable in the Patna Division, where the disease appears to have been very prevalent in 1892, and the mortality high: admissions for cholera were very small in the Chota Nagpur Division, and it is not to be expected that they will ever bear any considerable ratio anywhere to the number of cases. The onset of the disease is so violent, and collapse follows with such rapidity, that removal to a hospital, even if possible, is in many cases not advisable. Diseases of the spleen, which are considered as the effect of continued malarial influence, caused no less than 61,863 admissions in 1892, against 54,652 in 1891 and 46,822 in 1890. Although for obvious reasons cases of leprosy are not generally admitted in the dispensaries, the number of persons treated for this disease was by no means small, being 2,769 in 1892, 2,828 in 1891, and 2,625 in 1890.

12. *Surgical operations.*—The number of surgical operations of all kinds increased from 66,324 in 1889 to 86,915 in 1892, or by 31 per cent., and the number of major operations, which have more than doubled themselves during the last six years, advanced in the three years under review from 5,336 in 1889 to 9,263 in 1892, or by 73·3 per cent. In proportion to population, however, as the statistics below will show, the number of major operations in Bengal is much below that in the North-Western Provinces and Oudh and the Panjab. The Lieutenant-Governor notices with satisfaction the large number

of major operations performed at Gaya (2,474), Dacca (1,344), Bankipore (1,308), Monghyr (1,272), Chapra (972), and Arrah (752). Most of these institutions were at the head of the list at the time of the previous triennial report, and the great development of surgical treatment during the period under review can be inferred from the fact that the figures for the previous three years were Dacca 832, Monghyr and Chapra 697 each, Burdwan 480, Muzaffarpur 398, and Bankipore 382. The popularity of these institutions for their surgical record is due to the skill and labour of Surgeon-Major R. D. Murray at Gaya, who in two years performed 1,434 operations; and of Assistant Surgeons Upendra Nath Sen (Monghyr), Apurba Krishna Das (Chapra), and Nritto Gopal Mitter (Arrah). The lithotomy operations, always an important feature in the list, aggregated 659, with a mean death-rate during the three years of 7·8. Numerically the most important operation is that for cataract, and the Lieutenant-Governor is glad to find that the number of these operations increased from 926 in 1889 to 2,333 in 1892, and that more

PROVINCE.	Population.	Total major operations.	Operations for cataract.	RATIO PER CENT.	
				Column 3 on column 2.	Column 4 on column 3.
1	2	3	4	5	6
Bengal ...	71,345,987	9,263	2,333	·01	25·1
North-Western Provinces and Oudh.	46,905,085	21,301	8,880	·05	26·5
Panjab ..	20,801,847	14,000	4,234	·07	29·8

than 81 per cent. of them proved successful. He is disappointed to learn, as shown by the statistics in the margin for the year 1892, how far below the returns for the other great provinces of Upper India these figures are, and he agrees with the Inspector-General of Civil Hospitals that Civil Surgeons and subordinate medical officers should be stimulated to greater exertions in this direction.

The number of officers who have really devoted themselves to the practice of this operation is small, and it is clear that over large areas of the Province little has been done to relieve what is evidently a most common affliction.

13. *Sex of patients.*—There has been a considerable increase in the number of adult males and children treated in the dispensaries. The number of females, though showing an increase over that of the previous year, is still only about one-fourth of that of the males, and it is believed that want of separate accommodation in most of the dispensaries for the treatment of female patients is the cause of this small attendance. The list furnished by the Inspector-General of Civil Hospitals, in compliance with the orders contained in the Resolution on the annual returns for 1891, shows that separate hospitals for females exist at Bankipore, Burdwan, Cuttack, Dacca, Dinajpur, Kamarhati, Gaya and Barisal, and that in many dispensaries there are separate wards for the treatment of women. The Lieutenant-Governor is glad to find that the necessity for providing separate accommodation for female patients has been more generally recognized, and it is hoped that before long this want will be supplied at most places.

14. *Income and expenditure.*—The following table, which shows at a glance the total income and expenditure of the dispensaries during the last three years, is reproduced in full from Dr. Pilcher's report:—

	Income.					
	1890.	1891.	1892.			
	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.
Cash balance on 1st January	35,609	2 5	33,369	5 10	35,327	6 6
From Government—						
As salaries—						
Medical officers ...					16,257	11 8
Inferior dispensary establishment (including menial servants).	16,339	11 11	15,925	7 8		
As registers and forms ...	2,081	0 7	2,507	7 2	570	0 0
As European medicines ...	1,056	15 1	1,139	7 11	2,846	13 1
For diet, including police cases ...	2,545	7 1	2,782	8 0	1,313	14 7
Special allowances given by Government ...	3,018	15 10	3,246	1 3	3,533	14 7
					3,455	6 7
Total ...	25,042	2 6	25,601	0 0	27,977	12 6

<i>Income.</i>									
1890.			1891.			1892.			
Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	
From local or other funds—									
Local or other funds ...	70,504	15	7	89,377	0	3	93,992	14	2
Municipal funds ...	1,58,941	1	7	1,73,858	15	5	1,88,187	1	9
Interest on investment ...	36,112	2	8	39,320	2	0	36,895	1	10
Sale of securities or withdrawal of deposits ...	19,638	11	10	14,543	14	10	19,834	7	5
Subscriptions—									
From Europeans ...	15,693	13	2	16,819	4	11	16,155	12	11
„ Natives ...	1,45,981	1	2	1,20,736	12	4	1,25,170	12	5
For diet (by paying patients, &c.) ...	.....			.....			996	7	9
From sale of medicines not supplied by Government ...	.....			.....			64	15	3
Miscellaneous receipts ...	.....			.....			4,096	11	1
Total income ...	5,07,583	2	11	5,13,726	7	7	5,48,699	7	7
<i>Expenditure.</i>									
1890.			1891.			1892.			
Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	
Paid by Government—									
As salaries—									
Medical officers ...						16,557	11	8	
Inferior dispensary establishment—									
Compounders, dressers, &c. ...						192	0	0	
Menial servants ...						378	0	0	
Paid from local sources—									
As salaries—									
Medical officers ...	2,38,522	3	5	2,50,926	11	2	1,68,206	11	2
Inferior dispensary establishment—									
Compounders, dressers, &c. ...						41,989	5	5	
Menial servants ...						42,119	9	5	
On bazar medicines ...	11,238	0	9	12,403	1	11	13,184	9	11
„ European medicines ...	58,340	4	4	59,781	14	3	73,998	15	11
„ diet ...	47,416	10	8	52,088	5	10	62,014	9	5
„ miscellaneous charges (including registers, &c., supplied by Government) ...	36,325	14	3	47,236	6	6	40,915	0	2
„ buildings or repairs ...	48,732	14	9	39,858	0	7	38,997	3	11
Invested during the year	24,277	15	4	16,146	12	4	24,990	12	8
Total expenditure ...	4,74,853	15	6	4,78,441	4	7	5,23,544	9	8
Cash balance on 31st December	32,729	3	5	35,285	3	0	25,154	13	11

The difference between the opening balance of each year and the closing balance of the previous year is due to certain institutions having been newly brought on the Government list, to the closing of a dispensary, and to the correction of the accounts of certain institutions.

15. The total income of the mufassal dispensaries shows a considerable increase over that recorded in 1889, the figures being Rs. 5,07,583 in 1890, Rs. 5,13,726 in 1891, and Rs. 5,48,699 in 1892, against Rs. 4,73,333 in 1889. It is satisfactory to notice that these receipts were sufficient to meet the current expenses of the institutions, and allowed of investments being made. The contributions from Government increased from Rs. 22,921 in 1889 to Rs. 27,978 in 1892. This increase was chiefly under the head of Salaries, and is largely due to Government having undertaken in many cases to meet the increased salaries payable to medical subordinates on promotion to higher grades, where the dispensary funds were unable to bear it. The total amounts received from municipal and other local funds increased by Rs. 5,769-12-8 in 1890.

by Rs. 33,789-14-6 in 1891, and by Rs. 18,944-0-3 in 1892. The receipts from subscriptions rose in 1890 from Rs. 1,36,738-11-10 to Rs. 1,61,674-14-4. In 1891, however, they fell to Rs. 1,37,556, but again rose in 1892 to Rs. 1,41,326-9-4. The great increase in 1890 was due to a sum of Rs. 17,600 having been received in the Kandi Dispensary as a part of the original legacy of the late Kumar Girish Chunder Singh, and to a sum of Rs. 15,000 having been paid by Srimati Bindu Bashini Chowdhurani of Santosh for the construction of a masonry building for the Tangail dispensary.

16. The total expenditure, exclusive of the amounts invested, shows an increase of Rs. 17,833-9 in 1890, Rs. 21,718-8-1 in 1891, and Rs. 36,259-4-9 in 1892. The increase is distributed over all the heads of ordinary expenditure excepting miscellaneous charges. The rise under the head of Establishment is due to the opening of new dispensaries and to an increase of the staff of menials at certain places. The increase under all other heads is attributed chiefly to the rise in the number of in-patients. Under the head of Buildings and repairs, there was a large increase in 1890, but in 1891 it fell by Rs. 8,874-12-2, and in 1892 by Rs. 860-12-8.

17. The amounts invested during the three years were Rs. 11,04,374-7, Rs. 11,00,323-13-3 and Rs. 11,08,849-15-1 respectively, and the value of the securities sold or withdrawn was Rs. 19,586-0-11, Rs. 14,643-14-10 and Rs. 19,834-7-3. The difference between the opening balance of each year and the closing balance of the previous year was due mainly to the incorrectness of the accounts of certain dispensaries. Rule 24 of the Dispensary Manual, which lays down that the deposits in Savings Banks, when exceeding Rs. 200, should be invested in Government securities, was not complied with in many cases, and the attention of Civil Surgeons has been drawn to the fact.

18. *Conclusion.*—During the greater part of the period under review, Surgeon-Colonel Hilson, C.I.E., was Inspector-General of Civil Hospitals, and to him the thanks of Government are due for what he was able to do in spite of failing health. To Surgeon-Colonel Pilcher, who held the appointment for a short time at the end of 1892, the Lieutenant-Governor tenders his acknowledgments for a complete report. The names of the Medical Officers specially commended in the 66th paragraph of the report will be noted in the proper Department.

By order of the Lieutenant-Governor of Bengal,

J. A. BOURDILLON,

*Offg. Secy. to the Govt. of Bengal.*

**DONATION BY HIS HIGHNESS THE MAHARAJA  
SCINDIA BAHADUR OF GWALIOR.**

GENERAL DEPARTMENT—EDUCATION No. 2320.

*Darjeeling, the 10th October 1893.*

**RESOLUTION.**

**READ—**

Letter from the Director of Public Instruction, Bengal, No. 5757, dated the 9th September 1893.

The Director of Public Instruction reports that, in addition to the donations already acknowledged by Government on two previous occasions, His Highness the Maharaja Scindia Bahadur of Gwalior has presented, through the late Nawab Bahadur Abdul Lateef, C.I.E., a sum of Rs. 500 to be invested in a 4 per cent. Government Promissory note for the award, in His Highness' name, of an annual medal or money prize to a student of the Calcutta Madrasa who having passed the F. A. Examination, may not have obtained a scholarship or other prize.

2. The acknowledgments of Government are again due to His Highness the Maharaja Scindia Bahadur of Gwalior for his liberal donation, and for the interest thereby displayed in the promotion of Muhammadan education. •

His Honour approves the proposal made by the Director of Public Instruction that the Principal of the Calcutta Madrasa be appointed Administrator of the Fund.

ORDER.—Ordered, that a copy of the Resolution be forwarded to the Director of Public Instruction, and to the Accountant-General, Bengal, for information; also that the Government of India, Foreign Department, be requested to forward a copy, with the permission of His Excellency the Governor-General in Council, to His Highness the Maharaja Scindia Bahadur of Gwalior.

Ordered also, that a copy of this Resolution be published in the *Calcutta Gazette*.

By order of the Lieutenant-Governor of Bengal,

M. FINUCANE,

*Offg. Secretary to the Government of Bengal.*



RESOLUTION ON THE ADMINISTRATION REPORT OF THE  
COMMISSIONERS OF THE PORT OF CALCUTTA  
FOR 1892-93.

No. 2324 Marine.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

*Dated Calcutta, the 5th October 1893.*

RESOLUTION.

READ—

The Administration Report of the Commissioners of the Port of Calcutta for 1892-93.

The consolidated debt due to Government was reduced during the year from Rs. 39,94,381 to Rs. 38,46,346, or by Rs. 1,48,035, and a sum of Rs. 1,30,500 was invested in their own debentures for the repayment of their different debenture loans aggregating Rs. 60 lakhs. The gross debt of the Commissioners on 31st March 1893 amounted to Rs. 1,16,11,346. This does not, however, include the advances made by Government for the construction of the Kidderpore Docks. The details of the consolidated debt are given below:—

			Rs.
Consolidated debt due to Government	...	...	38,46,346
Port debt not repayable ...	...	...	17,65,000
4½ per cent. debenture loan of 1881 ...	...	...	10,00,000
Ditto ditto of 1883 ...	...	...	20,00,000
5½ per cent. ditto of 1886 ...	...	...	30,00,000
Total	...	...	1,16,11,346

2. Against this debt the Commissioners hold block to the value of Rs. 2,30,04,615 in addition to certain valuable strand bank lands, for which they pay to Government an annual rent of Rs. 37,292. The statement below shows the cost of the works constructed and the sources from which the expenditure has been met:—

	Expenditure up to 31st March 1893. Rs.		Rs.	Rs.
Jetties and appliances for sea-going vessels	83,60,566	By Loan from Government (re-payable)...	60,25,100	
Inland Vessels' Wharves, Landing-stages, Tramway, &c., on the Calcutta side	62,02,698	Less amount re-paid...	21,78,754	38,46,346
Inland Vessels' Wharves, Landing-stages, Tramway, &c., on the Howrah side	16,38,634	By Loan from Government (not re-payable) ...		17,65,000
Dockyard and Workshop at Howrah	6,25,484	By Loan on 4½ per cent. Debentures of 1881 ...		10,00,000
Moorings, Anchor-vessels, Harbour Master's Boats, Light-ships, Survey Vessels, &c.	38,75,244	By Loan on 4½ per cent. Debentures of 1883 ...		20,00,000
Reserve Fund { Jetties Reserve Funds ...	99,244	By Loan on 5½ per cent. Debentures of 1886 ...		30,00,000
" Insurance Fund ...	50,000	Contribution from Government towards purchase of land for new riverside road ...		74,584
Port Reserve Fund ...	3,64,250	Contribution from Government for landing-stage at Prinsep's Ghat ...		10,000
" Depreciation Fund ...	1,99,995	Contribution from Government for Port Approaches block ...		6,21,163
" Approaches Depreciation Fund ...	2,50,000	From sale of surplus land... ..		4,09,803
Debenture Loan Sinking Fund ...	10,38,500	" revenue derived from work since formation of Trust Rs. 80,98,965		
Dock Contingent Fund ...	4,00,000	Add amount repaid to end of March 1893		
TOTAL ...	2,30,04,615	from revenue ... ..	21,78,753	1,02,77,719
		TOTAL ...		2,30,04,615

3. The year opened with a balance of Rs. 3,69,899, and the income during the year amounted to Rs. 30,30,341. The expenditure, including sinking fund, renewals and improvements, amounted to Rs. 28,29,984, leaving a net revenue balance of Rs. 5,70,255.

4. The exceptional increase both in income and expenditure is due on the one side to the re-imposition of port dues and the levy of a special toll under section 108 of the Calcutta Ports Act, and to the up-keep of the Docks on the other.

5. In consequence of the heavy deficit in the port revenues due to the charges for the interest on the capital outlay and the working expenses of the Kidderpore Docks, the Commissioners considered that the time had arrived for the re-imposition of the port dues, which had been abolished in 1884 when a large surplus revenue was being obtained. A proposal was accordingly submitted to Government to levy a port due of four annas per registered ton on all vessels entering the port, and sanctioned by them with effect from the 1st December 1892. The due is not payable more than once in sixty days. The receipts from this source during the year amounted to Rs. 91,376.

6. In addition to the port dues, it was decided to impose a special toll under section 108 of the Calcutta Ports Act of four annas per ton on all goods landed from or shipped into any vessel lying within the limits of the port, in addition to the tolls, dues, rates, and charges in force. The levy of this toll took effect from the 1st January 1893, and the receipts during the three months of the year amounted to Rs. 2,07,741.

7. The expenditure on the Kidderpore Docks during the year amounted to Rs. 23,88,993, raising the total expenditure from Rs. 2,56,97,370 on the 31st March 1892, to Rs. 2,80,86,363 on the 31st March 1893.

8. The docks were declared to be legally open for traffic on the 13th September 1892. They were not, however, used to any appreciable extent, and the gross receipts amounted to only Rs. 1,02,414, of which Rs. 65,020 were from the graving dock.

9. From April 1892 to the end of the year, 42 steamers and 19 sailing vessels entered the docks. All the arrangements for docking and undocking vessels were satisfactory, and all operations were successfully conducted. The accessories provided for the accommodation and conduct of business are stated to have proved equally successful and satisfactory. The want of traffic in the docks is not attributable to the appliances not meeting the requirements of the vessels. The graving dock has been extensively used.

10. Owing to the failure of the docks to attract a large number of vessels, a special Committee was appointed by the Commissioners to consider the financial position of the port, consequent upon the construction of the docks; their proposals as to the best means of utilizing the docks and for making the expenditure reproductive are now under the consideration of Government.

11. The income under Part I, Jetties, amounted to Rs. 11,41,471, showing a decrease of Rs. 1,25,477. The depression in trade during the year has been great, and for several months the moorings in the Port were blocked with ships which were unable to secure outward charters. The expenditure amounted to Rs. 7,63,907.

12. The income from the petroleum wharf at Budge-Budge continues steadily to advance, the total receipts during the year being Rs. 1,97,111, or Rs. 20,704 in excess of the previous year. The quantity of kerosine-oil imported was 32,543,864 gallons, against 32,117,680 in 1891-92.

13. Messrs. Graham and Company completed their depôt for Russian oil in bulk in the early part of the year, but it was not till the month of February 1893 that the "Turbo," the first tank vessel, arrived. She discharged her cargo of 1,347,584 gallons in four days, or five times as quickly as case oil can be landed.

14. The total quantity of tea which passed through the tea warehouse was equivalent to 45 million lbs., showing a reduction of 3 million lbs. on the previous year. The receipts, however, were Rs. 1,07,295, or an increase of Rs. 2,297 over 1891-92, which is attributed to the fact that there was an increase in the quantity of tea sold by auction in Calcutta, all the operations of which were carried out in the tea warehouse.

15. During the year 214 vessels, with an aggregate tonnage of 485,299, were berthed at the jetties, against 226 vessels and a tonnage of 501,938 in 1891-92. The average number of days each vessel occupied the jetties was 10·7 against 9·6 in 1891-92.

16. The receipts of the inland vessels wharves, amounted to Rs. 4,65,811 against Rs. 5,00,215 in the previous year. The decrease is due to the general depression in trade, which has affected the revenue on nearly all the wharves. The expenditure amounted to Rs. 3,07,022, being Rs. 32,716 less than in 1891-92. The reduction is due chiefly to the fact of there not being any heavy repairs, and to the working expenses being cut down.

17. The income of the Harbour Masters' Department amounted to Rs. 5,82,707 against Rs. 5,20,349 in 1891-92. The increase was obtained from mooring hire, a larger number of vessels having come into the port. The expenditure was Rs. 5,27,291, or an increase of Rs. 54,888 on the previous year, due to the full contribution of Rs. 55,110 having been paid to depreciation account to meet the cost of a new hopper barge.

18. There were 23 accidents to vessels while in charge of Assistant Harbour Masters, against 18 in the previous year. The increase is due to the practice followed of reporting every casualty, however trivial, which was not done in former years. In no case was the casualty attended with serious consequences.

19. The gross revenue of the Port Trust Railway amounted to Rs. 2,62,066 against Rs. 2,91,571 in the previous year, the decrease being due to the depression in trade. The expenditure was Rs. 1,89,710, or a decrease of Rs. 576 on the previous year.

20. Extensive alterations have occurred in the river channel in the Lower Saugor Roads: the width of the bar has increased from 1,500 yards to 3,000 yards, and the depth of water on the bar, after undergoing several changes, is now 15 feet, or one foot less than last year. There is every probability of the Lower Saugor Roads being quite obliterated within a very few years. The Middleton Sand and Lower Long Sand will probably join from end to end and from one flat.

Beyond this the general contour of the southern and eastern portions of the Roads have remained practically the same, excepting that two dangerous patches of 12 and 13 feet have shown up just above and below close to the Middleton Spit Buoy, where nothing under 18 feet existed before.

21. With reference to these changes, the Commissioners write:—"The above is not a very encouraging report to make on the entrance to the Hooghly River, and the condition of things would have been still more serious were it not that there is every indication of a good channel cutting between the Upper and Lower Long Sands just above the Middleton Bar. This channel is apparently opening very rapidly, and is now 1,000 yards broad, running in a south-westerly direction with 16 feet the least water in the Bar. Last year this channel had a bar at both entrances, but the southern one has entirely washed away, and 23 and 24 feet are now showing where only 16 and 17 were reported last year. A matter of still more importance is that the strength and direction of the tide also tends towards this new channel, and consequently it will increase the Middleton extension, and assist to open more rapidly this new channel. There is no foretelling the courses the river Hooghly will take, but it is quite within possibility that vessels will have to be navigated by the western channel within a year or two if the same changes as have been described above continue.

"The western channel will not, for navigation purposes, be so smooth as the eastern channel, and for sailing vessels will not be an easy passage to pilot between the Sands; but otherwise, for steamers, it will not make much difference."

22. The thanks of the Government are due to the Commissioners for their efficient management of the affairs of the Port Trust during the year.

By order of the Lieutenant-Governor of Bengal,

C. W. ODLING,

*Secretary to the Government of Bengal.*

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 7th October, 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL.</b>			
BURDWAN DIV.	1 Burdwan Oct. 7, '93	0.04	Weather—fair and hot. Prospects of <i>aman</i> crop good. Prices of common rice:— <div style="float: right; text-align: right;"> Srs.  Burdwan ... 10 to 13  Kalna ... 9 to 13  Katwa ... 12½  Raniganj ... 12 } per rupee. </div>
	Kalna ...	0.09	
	Katwa ...	Nil	
	Raniganj ...	Nil	
	2 Bankura „ 7, '93	Nil	Weather—overcast and rainy from date of report. Prospects of <i>aman</i> continue good. Common rice selling at 13 seers 3 chitaks per rupee at Bankura and 12½ seers at Vishnupur.
	3 Birbhum „ 7, '93	Nil	Weather—fine throughout the week; cloudy to-day (7th). State and prospects of rice crops continue good. Price of common rice varies from 10 to 14½ seers per rupee.
	Rampur Hât ...	Nil	
	4 Midnapore „ 7, '93	Nil	Weather—fair and rather hot. Prospects of standing crops good. Cattle-disease reported from some parts. Fodder and water sufficient. Prices of common rice:— <div style="float: right; text-align: right;"> Srs.  Sadar ... 12½  Contai ... 13  Tamluk ... 12  Ghatal ... 10 to 12 } per rupee. </div>
	5 Hooghly „ 7, '93	0.12	Weather—hot. Jute steeping finished. Harvesting of <i>aus</i> almost completed. Sugarcane and <i>aman</i> doing well. Land being prepared for <i>rabi</i> crops. Prices of common rice:— <div style="float: right; text-align: right;"> Srs.  Sadar ... 10  Serampore ... 10 to 11½ } per rupee. </div>
	Serampore ...	Nil	
	6 Howrah „ 7, '93	0.79	Weather—dry and hot. <i>Aman</i> paddy doing well. Price of rice 10 seers per rupee. Fodder and water sufficient.
	Ulubaria ...	Nil	
PRESIDENCY DIV.	7 24-Parganas „ 7, '93	Not reported.	Harvesting of <i>aus</i> and jute and transplantation of <i>aman</i> nearly over. Prospects of crops fair in the northern part of the district, but poor in the south, especially in the thana of Bankipur. Prices of common rice:— <div style="float: right; text-align: right;"> Srs. Ch.  Sadar ... 10 to 11½  Basirhat ... 9 13½  Diamond Harbour ... 10 12  Burasat ... 11 0 } per rupee. </div>
	8 Nadia „ 7, '93	0.47	Weather—dry and hot. Prospects of <i>aman</i> not favourable in the subdivisions of Kushtia and Meherpur. Prospects of sugarcane also not favourable. <i>Kalai</i> and <i>mung</i> are being sown broadcast. Fodder and water sufficient.
	Kushtia ...	Nil	
	Meherpur ...	Nil	
	Chuadanga ...	Nil	Weather—hot. Prospects of <i>aman</i> on high lands good, but on low lands precarious. Common rice sells at 9 to 10 seers per rupee. Water and fodder sufficient.
	Ranaghat ...	0.89	
	Khulna „ 7, '93	0.75	
	Bagerhat ...	Nil	
	Satkhira ...	Nil	
	10 Jessore „ 7, '93	0.36	Weather—seasonable. Harvesting of <i>aus</i> and extracting of jute finished. Prospects of <i>aman</i> fair. Rivers going down. Lands being cultivated for winter crops. No cattle-disease. Fodder and water sufficient. Prices stationary.
	Jhenida ...	Nil	
	Magura ...	Nil	
	Narsail ...	Nil	
	Bangaon ...	Nil	
	11 Murshidabad „ 7, '93	Nil	Weather—seasonable. Winter rice and sugarcane doing well. <i>Kalai</i> , <i>moshna</i> and <i>til</i> are being sown. Fodder sufficient for cattle. Common rice sells at 11 seers per rupee.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL—conold.</b>			
CHITTAGONG DIV.	12 Chittagong ...	...	Report not received.
	13 Noakhali „ 7, '93	3.82	Weather—seasonable. Transplantation of <i>aman</i> still going on. Prospects very favourable. Fodder and water available. No cattle-disease. Price of rice falling.
	14 Fippera „ 7, '93	1.41	Weather—seasonable. Harvesting of jute and transplantation of paddy going on. Price of seedlings still very high. Insects causing some damage to <i>aman</i> in thana Nasirnagar. Ten to 12 annas of <i>aman</i> expected. Rice selling at 8 to 9 seers per rupee. It has slightly fallen at Chandpur. Fodder still insufficient.
	15 Chittagong Hill Tracts. „ 6, '93	1.97	Weather—fair with occasional showers. Plough-paddy progressing. Price of indian-corn and vegetables high. Common rice selling at 9 seers per rupee. No cattle-disease reported.
DACCA DIV.	16 Dacca „ 7, '93	0.22	Weather—hot. Harvesting of jute nearly completed. <i>Bawa</i> and <i>shail</i> paddy being sown. Prospects of <i>aman</i> favourable, but it is being damaged by a kind of insect in some places in the Munshiganj subdivision. Common rice selling from 7 to 9 seers per rupee. Fodder not sufficiently available. No cattle-disease.
	17 Faridpur „ 7, '93	Nil	Weather—cloudy and fine with occasional slight rain. Prospects of crops remain unaltered. Rivers falling. Rice sells from 9 to 10 seers per rupee. Fodder available at high prices. Cattle-disease still prevailing in Dhalong.
	Goaland „	Nil	
	Madaripur „	Nil	
RAJSHAHI DIV.	18 Backergunge „ 7, '93	1.04	Weather—seasonable. State and prospects of crops fair. Common rice selling from 8 to 9 seers per rupee. Fodder and water sufficient.
	19 Mymensingh „ 7, '93	0.17	Weather—hot. Prospects of standing crops very fair. Common rice selling from 8 to 9 seers per rupee. Condition of cattle good except in the Netrakona subdivision where, however, it is improving. Fodder available except in Netrakona and Kishorganj, where the supply is not yet sufficient.
	20 Dinajpur „ 7, '93	Nil	Weather—hot. Prospects good. Prices of rice stationary. Condition of cattle good. Fodder and drinking water ample.
	21 Rajshahi „ 7, '93	Nil	Weather—seasonable. The present condition of the crops is good almost everywhere; in the Barind it is excellent. Prospects are eminently favourable. Fodder and water-supply ample. There is no cattle-disease. Price of rice varies from 9½ to 13 seers per rupee.
	Nator „	0.04	
	Naugaon „	0.45	Weather warm. Jute steeping progressing. Lands are being prepared for cold-weather crops. Common rice 9 to 10 seers per rupee.
	22 Rangpur „ 7, '93	Nil	
	Kurigan „	1.06	
	Gaibanda „	0.04	
	Nilphamari „	...	Weather—fine and clear. Prospects of <i>aman</i> good. Cultivation of land for mustard-seed goes on. Common rice sells at 9 to 10 seers per rupee. Fodder and water sufficient.
	23 Bogra „ 7, '93	0.65	
	Sherpur „	Nil	Weather—seasonable; pleasant in the morning. Prospects of standing crops on the whole fair. Common rice sells in the Sirajganj subdivision at Rs. 4-12 per maund and in the Pabna subdivision at 9½ seers per rupee.
	Naukhila „	0.05	
RAJSHAHI DIV.	24 Pabna „ 7, '93	Nil	Weather—bright, cool, seasonable. In the hills :— <i>Bhatta</i> , <i>chota marua</i> , potatoes and <i>bhadoi dhan</i> being harvested. <i>Aghani dhan</i> , <i>kalai</i> and <i>baru marua</i> progressing favourably. In the Terai :— <i>Jute</i> and <i>bhadoi</i> harvested. Prospects of <i>aghani</i> favourable. Prices of common rice :— Srs. Hills ... 9 Terai ... 10 } per rupee.
	25 Darjeeling „ 7, '93	0.02	
	Siliguri „	Nil	Weather—days hot, nights cool. Prospects of the standing crop good. Rain wanted in places. Price of common rice stationary. No want of fodder and water. No cattle-disease reported.
	26 Jalpaiguri „ 7, '93	Nil	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR.</b>			
BRAGALPUR DIVN.	27 Monghyr Begusarai Jamui	Oct. 7, '93 ... ...	Nil Nil Nil
			Weather—hot and fair with occasional specks of cloud. Standing crops doing well. <i>Kurthi</i> and indigo in good condition. Sugarcane promising. Lands being ploughed for <i>rabi</i> . No want of fodder and water. Cattle-disease at Bakhtiarpur. Prices of common rice—
			Srs. Sadar ... .. 12 to 20 Begusarai ... .. 12 Jamui ... .. 12 } per rupee.
	28 Bhagalpur Banka Madhipura Supaul	" 7, '93 ... ... ...	Nil Nil Nil 0.32
			Weather—hot, but getting cooler at night. At its present stage a 16-anna outturn of the winter rice crop may be expected. <i>Kalai</i> and <i>kurthi</i> being sown. Common rice 11½ seers per rupee.
	29 Purnea Kishanganj Araria	" 7, '93 ... ... ...	0.10 0.13 Nil
			Weather—fine, cool at night, warm by day. <i>Bhadai</i> outturn 12 to 16 annas according to locality. Jute 12 to 14 annas. Prospects of <i>aghami</i> excellent except along the Panar where floods have injured it. <i>Kurthi</i> and sugarcane doing well. Cultivation for <i>rabi</i> in progress. Fodder and water plentiful. Prices inclined to fall.
	30 Malda	" 7, '93	Nil
			Fine weather up to yesterday (6th). Cloudy again with a slight shower of rain. Rivers going down. Winter rice plants coming on well. <i>Kalai</i> pulse being sown. Lands being prepared for wheat and other <i>rabi</i> crops. Coarse rice selling from 11 to 17 seers per rupee. Fodder and water ample.
	31 Sonthal Parganas Deoghur Jamtara Pakur Rajmahal	" 7, '93 ... ... ... ...	Nil Nil Nil Nil Nil
			Weather—hot in the day, cool at night. Prospects of standing crops continue good, though a little more rain is wanted in the Deoghur subdivision. Fodder and water sufficient. Price of rice steady.
PATNA DIVISION.	32 Patna	" 7, '93	Nil
			Weather—days hot and clear, nights getting cool. Reports regarding the rice crop continue excellent but some more rain would be an advantage. Prospects of the spring crops are so far very good. Prices of common rice—
			Srs. Sadar ... .. 16 Banka ... .. 13 Bihar ... .. 17 Dinapore ... .. 13 } per rupee
	33 Gaya Nawada Jehanabad Aurangabad	" 7, '93 ... ... ...	Nil Nil Nil Nil
			Weather—fine, cool at night, but hot in the day. Prospects of paddy crop excellent. Lands being prepared everywhere for spring crops, and some being sown. Prices almost stationary. Fodder and water supply ample.
	34 Shahabad Buxar Sasaram Bhabhua	" 7, '93 ... ... ... ...	Nil Nil Nil Nil
			Hot clear weather with cool mornings and heavy dews. <i>Bhadai</i> harvest practically over. The only crop being got in is <i>sirka</i> . Young paddy is flourishing. Lands are being prepared for <i>rabi</i> crops. Cattle-pox very rife in the south.
	35 Darbhanga Madhubani Samastipur	" 7, '93 ... ... ...	Nil 0.98 Nil
			Weather—mornings getting cool, but days hot. Prospects of rice favourable. Tobacco and <i>aloe</i> being planted. Lands being prepared for <i>rabi</i> cultivation. Slight flood appeared this week, but did no harm. Fodder sufficient. Prices steady.
	36 Muzaffarpur	" 7, '93	Nil
			Weather—fair. Paddy crop doing well. Lands being prepared for <i>rabi</i> sowing. Harvesting of <i>bhadai</i> crops over. High floods again, but no injury expected. Fodder and water sufficient. Condition of cattle generally good. A few deaths among cattle reported from Majorganj in the Sitamarhi subdivision.

No.	District and date of return.	Rainfall at S. dar Station in inches	Character of the weather and state and prospects of the crops.
<b>BIHAR—conold.</b>			
PATNA DIVISION—conold.	37 Saran Siwan Gopalganj	Oct. 7, '93 Nil Nil 0.75	Weather—days hot and bright, nights getting cool. Crops promise well. Maize all harvested with an average outturn of 11 annas or possibly more. Fodder and water plentiful. Prices of common rice— Srs. c. Chapra ... .. 15 0 Siwan ... .. 14 12 Gopalganj ... .. 16 0 } per rupee.
	38 Champaran	.. 7, '93 Nil	Weather—warm during day, but cool at night. <i>Aghani</i> in all parts of the district, excepting those which were affected by the last flood, is in excellent condition. Enquiry regarding the damage done by the flood not yet completed. Prices stationary. Fodder and water sufficient.
<b>ORISSA.</b>			
ORISSA DIVN.	39 Cuttack	.. 7, '93 Nil	Weather—warm; no rain. Early <i>bah</i> being gathered. <i>Bara bisk</i> ripening. <i>Sarad</i> growing. Supply of fodder sufficient. Price of common rice unchanged except in Kondrapara, where it sells at 15 to 21 seers per rupee.
	40 Puri Khurda	.. 5, '93 Nil Nil	Weather—hot and dry. <i>Sarad</i> and <i>laghu</i> still being weeded. The damage done to <i>sarad</i> by the <i>kahalia</i> and <i>pokachhinda</i> diseases is not likely to be great. Miscellaneous crops doing well. Prices of common rice:— Srs. c. Srs. c. Sadar ... .. 13 2 to 15 12 Khurda ... .. 11 0 to 17 1 } per rupee.
	41 Balasore	.. 7, '93 Nil	Weather—fine and hot. Floods have done damage in the south and south-east of Bhadrak. The break in the rains for the past six days is reported to have been very beneficial, and the crops are coming on well. Rain will be wanted about the 10th <i>Assu, nabi</i> and <i>kanda</i> crops are now in ear. A 10 to 12-anna crop is hoped for.
<b>CHOTA NAGPUR</b>			
<i>South-West Frontier Agency.</i>			
CHOTA NAGPUR DIVN.	42 Hazaribagh Girdi	Oct. 7, '93 Nil Nil	Weather—fine. Days very warm. <i>Marua</i> has yielded an 8-anna crop on average. Sugarcane doing well. Prospects of winter rice very good so far. <i>Rabi</i> crops being sown in places. Fodder and water abundant. Prices stationary.
	43 Lohardaga	.. 7, '93 Nil	Weather—seasonable. Reaping of <i>gora</i> paddy finished. Prospect of winter rice continues good. Common rice selling at 15 seers per rupee. Fodder and water plentiful.
	44 Palamanu	.. 6, '93 0.01	Weather—seasonable; getting perceptibly cooler. All crops on the ground promise excellently. <i>Rabi</i> sowings going on. <i>Bhadra</i> harvest nearly finished with a very good outturn of paddy and a poor one of Indian-corn. A little cattle-disease reported. Rice selling from 12 to 16½ seers per rupee. Fodder and water-supply ample.
	45 Singhbhum	.. 7, '93 Nil	Weather—seasonable, cold. Condition of the winter rice crop reported to be good from everywhere, a 16-anna outturn expected. Price of common rice from 12 to 16 seers per rupee. Cases of cattle-disease reported from Chakradharpur station and Baharagura outpost.
	46 Manbhum Gobindpur	.. 7, '93 Nil Nil	Weather—bright and cool. Crops doing well. Lands being ploughed for <i>rabi</i> . Prices stationary.

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 10th October, 1893.M. FINUCANE,  
Offg. Secy. to the Govt. of Bengal.





## Head-quarters Station Bazars of the Districts of Bengal on the 30th September, 1893.

															WHOLESALE PRICES PER MAUND OF 40 SEERS.						DISTRICT.	Number.
INDIAN-CORN OR MAIZE. (Zea Mays.)			ARHAR OR THUR, CADJAN PEA. (Cajanus Indicus.)			FIREWOOD.			SALT.			SALT.										
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.								
BENGAL.																						
S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.					
...	...	...	...	23 0	23 0	17 0	08 0	08 0	100 0	11 4	4	11 4	12 0	3 10	03 9 0	3 5 4	Burdwan.	1	BURDWAN DIVISION.			
...	...	...	...	18 6	13 6	14 0	280 0	280 0	320 0	10-10-2	10-10-2	10 0	3 12	03 12 0	3 10 0	Bankura.	2					
...	...	...	...	14 0	14 0	10 8	160 0	160 0	160 0	11 0	0	11 0	10 12	3 10	63 10 6	3 12 6	Birbhum.	3				
...	...	...	...	19 0	19 0	17 0	200 0	200 0	280 0	10 12	12	10 12	11 10	3 11	63 11 6	3 8 0	Midnapore.	4				
...	...	...	...	11 8	11 8	11 8	140 0	160 0	120 0	11 8	8	11 6	10 10	3 8 0	3 5 0	3 5 0	Hooghly.	5				
...	...	...	...	12 0	12 0	10 10	105 0	105 0	106 0	10 10	10	10 10	10 10	3 8 0	3 8 0	3 8 0	Howrah.	6				
10 6	19 6	19 7	17 12	18 4	15 2	85 0	85 0	85 0	11 10	11 0	11 5	3 7 0	3 8 0	3 4 3	Calcutta.			PRESIDENCY DIVISION.	7			
16 0	16 0	20 0	20 0	20 0	18 0	100 0	100 0	100 0	11 0	11 0	11 0	3 6 0	3 6 0	3 5 0	24-Parganas.							
...	...	...	22 13	21 8	17 12	128 0	128 0	...	9 13	10 8	10 10	3 10 0	3 10 0	3 8 0	Nadia.					8		
...	...	...	10 0	10 0	10 0	160 0	160 0	160 0	9 0	9 0	9 0	3 12 0	4 0 0	4 0 0	Khulna.					9		
...	...	...	20 0	20 0	15 0	120 0	120 0	120 0	10 0	9 14	9 12	3 10 0	3 10 0	3 10 0	Jessore.					10		
...	...	...	18 0	18 0	17 0	200 0	200 0	200 0	10 8	10 8	10 8	3 7 0	3 7 0	3 7 0	Murshidabad.					11		
...	...	...	...	...	...	80 0	80 0	110 0	9 8	10 0	10 0	4 0 0	3 14 0	3 14 0	Chittagong.			CHITTAGONG DIVISION.	12			
...	...	...	...	...	...	Not sold by weight			9 2	9 2	9 0	4 0 0	4 0 0	4 0 0	Noakhali.					13		
...	...	...	6 12	7 6	7 10	...	Ditto			8 0	10 0	10 13	5 0 0	4 0 0	3 12 0	Tippera.				14		
No. in coas. 300	300	...	...	...	...	240 0	240 0	240 0	8 0	8 0	8 0	5 0 0	5 0 0	4 12 0	Chittagong Hill Tracts.					15		
...	...	...	11 0	16 0	15 0	140 0	120 0	120 0	9 4	10 0	10 0	4 0 0	3 11 0	3 11 0	Dacca.			DACC DIVISION.	16			
...	...	...	...	...	...	...	...	...	10 4	10 4	10 0	3 14 0	3 14 0	3 14 0	Faridpur.					17		
10 0	Mug. 10 0	10 0	8 0	Musari. 8 0	7 12	80 0	80 0	80 0	10 0	10 12	10 10	4 0 0	3 8 0	3 9 0	Backergunge.					18		
...	...	...	13 0	13 0	13 0	120 0	120 0	120 0	10 0	10 0	10 0	4 0 0	4 0 0	3 15 0	Mymensingh.					19		
...	...	...	...	10 0	14 12	120 0	160 0	160 0	10 0	10 0	9 4	4 0 0	4 0 0	3 12 0	Dinajpur.			RAJSHAH DIVISION.	20			
...	...	...	20 0	21 0	16 10	240 0	240 0	240 0	9 9	9 9	9 9	3 10 8	3 10 8	3 10 8	Rajshahi.					21		
...	...	...	11 4	11 4	9 0	53 0	53 0	80 0	10 8	10 8	10 0	3 14 0	3 12 0	4 0 0	Rangpur.					22		

## PRICES-CURRENT (retail) of Food-grains, Firewood, and Salt in the Head-quarters

Number.	DISTRICTS.	QUANTITIES PER RUPEE IN														
		WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU (Sorghum Vulgare.)		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
BENGAL—continued.																
RAJSHAH DIVISION—contd.	23 Bogra	12 0	13 5	12 0	...	...	...	7 8	7 8	9 0	9 0	9 0	11 12	...	...	...
	24 Pabna	17 4	16 8	13 8	22 8	22 8	...	6 0	6 0	6 14	10 14	11 4	12 12	...	...	...
	25 Darjeeling	8 0	8 0	7 0	8 0	8 0	8 0	5 0	5 0	5 0	10 0	10 0	10 0	...	...	...
	26 Jalpaiguri	13 0	13 0	11 0	13 0	13 0	14 0	7 8	7 8	6 0	11 0	12 0	10 0	...	...	...
BIHAR.																
BHAGALPUR DIVISION.	27 Monghyr	15 8	15 12	12 8 to 13 4	23 0	23 1	15 8 to 16 0	8 0 to 10 8	10 8	9 8	12 0	12 0	12 0	...	...	...
	28 Bhagalpur	15 2	15 2	13 14	21 4	21 7	16 6	10 8	10 11	10 1	13 10	13 14	12 10	...	...	...
	29 Purnea (Kasba)	16 0	16 0	11 0	...	...	...	10 0	11 0	8 0	12 0	12 0	14 0	...	...	...
	30 Malda (English Bazar).	16 0	16 0	12 8	...	...	...	...	9 8	9 0	12 0	12 8	12 0	...	...	...
	31 Soanthal Parganas.	12 8	11 8	11 0	...	...	...	11 0	11 0	10 0	14 4	14 0	11 0	...	...	...
PAIKA DIVISION.	32 Patna	19 0	20 0 Red. 19 0 White.	15 8	26 0	28 0	24 0	10 8	10 0	10 8	16 0	15 0	15 0	27 0	24 0	21 0
	33 Gaya	14 8	14 0	12 8	18 0	20 0	17 0	9 8	9 8	9 0	13 0	12 4	12 0	18 0	17 8	16 8
	34 Shahabad	14 0	15 0	14 0	20 0	20 0	17 0	8 0	8 0	8 0	16 0	14 0	11 0	...	...	...
	35 Darbhanga	15 0	15 14	13 2	18 9	18 9	17 8	12 0	12 5	9 14	14 4	14 4	12 1	...	...	...
	36 Munassarpur	15 8	15 0	13 0	22 0	22 0	19 0	8 0	8 0	8 0	13 8	12 12	12 0	...	...	...
	37 Saran	17 8	16 0	13 13	24 0	25 0	20 0	11 8	11 8	8 0	15 0	14 8	11 10	...	...	...
	38 Champaran	13 12	13 8	11 8	23 0	22 8	17 0	8 8	8 8	9 0	15 4	16 0	14 8	...	...	...
ORISSA.																
ORISSA DIVISION.	39 Cuttack	10 8	11 2	9 3	...	...	...	10 8	10 8	8 3	13 2	13 2	11 13	...	...	...
	40 Puri	10 8	9 8	9 3	...	...	...	8 0	8 0	7 1	13 0	13 0	11 13	...	...	...
	41 Balasore	12 0	11 0	11 0	10 0	10 0	10 0	10 0	10 0	10 0	15 0 Old 16 0 Now. 17 0	18 0	15 0	...	...	...
CHOTA NAGPUR.																
CHOTA NAGPUR DIVISION.	42 Hazaribagh	12 8	12 0	11 0	15 0	16 0	14 0	8 0	8 0	8 0	12 0 to 12 4	12 0 to 12 8	13 8 ordinary 14 0 coarse 19 0	...	...	...
	43 Lohardaga	11 0	11 0	9 8	...	...	...	...	...	...	...	...	...	...	...	...
	44 Palamau	13 8	13 8	12 6	21 15	23 10	20 4	12 13	12 6	12 1	15 3	12 15	16 0	...	...	...
	45 Singhbhum	12 0	12 0	13 0	...	...	...	8 0	10 0	12 0	12 0	12 0	14 0	...	...	...
46 Manbhum	13 8	13 0	12 0	...	...	...	8 0 to 9 0	8 0 to 9 0	9 0	12 0 to 12 0	12 0 to 13 0	12 8	...	...	...	

U At Sirajganj the retail price of salt is 10 seers 10 chitaks per rupee.

V At Alipur the retail price of salt is 8 seers per rupee.

W In the subdivisions the retail prices of salt per rupee are:—Begusarai 10 seers and Jamal 10 seers.

X In the subdivisions the retail prices of salt per rupee are:—Banka 10 seers, Madhipura 10 seers, and Supaul 10 seers.

Y In the Kishanganj and Arraria subdivisions the retail price of salt is 10 seers per rupee.

Z In the subdivisions the retail prices of salt per rupee are:—Deoghur 10½ seers, Godda 9 seers, Jamtara 9 seers, Pakur 10½ seers, and Rajmahal 10 seers.

a In the subdivisions the retail prices of salt per rupee are:—Barh 9 seers, Bihar 9½ seers, and Dinapore 8 seers.

b In the subdivisions the retail prices of salt per rupee are:—Aurangabad 10 seers, Nawada 8½ seers and Jahangabad 10 seers.

c In the subdivisions the retail prices of salt per rupee are:—Buxar 10½ seers, Samatara 10½ seers, and Bhabhua 9 seers.

d In the subdivisions the retail prices of salt per rupee are:—Madhubani 11 seers and Samastipur 10 seers.

## Station Bazars of the Districts of Bengal on the 30th September, 1893—(concluded).

INDIAN-CORN OR MAIZE (Zea Mays.)			ARAR OR THUR, CAJIAN PEA. (Cajanus indicus.)			FIREWOOD.			SALT.			WHOLESALE PRICES PER MAUND OF 40 SEERS.			DISTRICTS.	Number.
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.		
S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	Rs. A. P.	Rs. A. P.	Rs. A. P.		
...	...	...	...	...	...	90 0	90 0	90 0	10 0	9 12	4 0	3 13	4 3	13 4	Bogra.	23
...	...	...	22 8	22 8	17 4	200 0	200 0	200 0	9 12	9 12	9 12	3 11	0 3	11 0	Patna.	24
20 0	20 0	16 0	8 0	8 0	8 0	120 0	120 0	120 0	8 0	8 0	4 10	4 10	0 4	12 0	Darjeeling.	25
...	...	...	10 0	10 0	10 0	160 0	160 0	200 0	10 0	10 0	3 15	0 3	15 0	3 12	Jalpaiguri.	26
23 0	23 1	30 0	25 0	25 3	17 8	132 0	132 0	120 0	11 0	11 0	10 8	3 12	0 3	12 0	Monghyr.	27
22 11	24 0	27 13	20 0	20 3	16 6	126 4	138 8	161 0	10 11	10 11	10 11	3 10	0 3	10 0	Blagulpur.	28
...	...	16 0	20 0	20 0	13 0	320 0	320 0	320 0	10 0	10 0	3 10	0 3	10 0	3 5	Purnea (Kasba).	29
...	25 0	...	12 0	12 0	...	160 0	160 0	120 0	10 0	10 0	4 0	0 3	11 0	3 12	Maldia (English Bazar).	30
28 0	21 0	30 0	23 0	23 8	16 0	120 0	120 0	200 0	10 0	11 0	3 12	0 3	12 0	3 10	Sonthal Parganas.	31
23 0	22 0	27 0	27 0	27 0	22 8	130 0	130 0	150 0	11 0	11 8	3 10	0 3	10 0	3 8	Patna.	32
18 8	21 0	20 8	20 0	22 0	19 0	120 0	140 0	200 0	10 0	10 0	3 14	0 3	11 0	3 13	Gaya.	33
22 0	20 0	20 0	22 0	20 0	16 0	103 0	120 0	110 0	10 8	11 0	3 13	0 3	13 0	3 10	Shahabad.	34
22 0	21 14	27 8	23 0	21 1	17 12	176 0	176 0	168 0	10 0	9 8	11 0	3 8	0 1	3 8	Darbhanga.	35
22 0	21 0	30 0	22 0	23 0	19 0	160 0	160 0	160 0	11 0	11 0	3 10	0 3	10 0	3 11	Muzaffarpur.	36
26 0	24 0	25 0	21 8	21 8	20 0	200 0	180 0	160 0	10 8	10 8	3 12	0 3	12 0	3 12	Saran.	37
20 8	18 8	28 0	22 0	22 1	17 0	180 0	180 0	160 0	10 2	10 2	3 11	0 3	11 0	3 11	Champaran.	38
...	...	...	21 0	21 0	14 7	80 0	80 0	80 0	11 0	11 0	3 8	0 3	8 0	3 12	Cuttack.	39
...	...	...	15 12	16 0	13 2	80 0	80 0	80 0	12 0	11 13	3 1	0 3	5 0	3 6	Puri.	40
...	...	...	11 0	10 0	10 12	86 0	86 0	160 0	11 0	11 0	3 8	0 3	8 0	3 10	Balasore.	41
20 0	18 0	28 0	18 0	17 0	16 0	240 0	210 0	240 0	9 0	9 0	4 8	0 4	8 0	4 4	Hazaribagh.	42
20 0	22 0	35 0	Big. 11 8	Big. 12 0	Big. 11 8	160 0	160 0	160 0	9 0	8 8	9 0	1 1	0 4	8 0	Lohardaga.	43
25 5	23 10	32 8	Small. 21 0	Small. 20 0	Small. 15 0	...	...	...	7 14	8 11	8 12	...	...	...	Palamau.	44
16 0	16 0	16 0	16 0	16 0	16 0	100 0	100 0	120 0	9 0	9 0	4 6	0 4	6 0	4 6	Singbhum.	45
19 0	20 0	20 0	18 0	16 0	16 0	...	...	...	10 10	10 10	3 11	0 3	11 0	3 10	Manbhum.	46

o In the subdivisions the retail prices of salt per rupee are :—Hajipur 10½ seers and Sitamerhi 11 seers.

f In the subdivisions the retail prices of salt per rupee are :—Siwan 10 seers 6 chitaks and Gopalganj (Mirganj) 11 seers 9 chitaks.

g At Bettiah the retail price of salt is 10 seers per rupee.

h In the subdivisions the retail prices of salt per rupee are :—Jajpur 10 seers, Kendrapata 9 seers, and Banki 11 seers.

i At Bhadrak the retail price of salt is 9 seers per rupee.

j At Giridih the retail price of salt is 11 seers per rupee.

k At Gobindpur the retail price of salt is 11 seers per rupee.

Published for general information.

M. FINUCANE,  
Offg. Secretary to the Govt. of Bengal.

PRICES-CURRENT (wholesale)

Number.	MARKS.	WHEAT.			• BARLEY.			RICE, &c.	
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	
		R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R.
1	Calcutta ...	3 4 6	3 3 9	3 5 0	2 7 0	2 6 0	2 6 6	5 10 0	5
2	Sirajganj ...	2 12 0	2 11 0	3 6 0	...	...	...	6 2 0	6
3	Dacca ...	3 0 0	3 8 0	3 12 0	...	...	...	5 8 0	5
4	Narayanganj ...	...	...	...	...	...	...	5 4 0	5
5	Chittagong ...	4 0 0	4 0 0	4 0 0	...	...	...	4 8 0	4
6	Patna ...	2 1 0	Red. 2 0 0	2 9 0	1 8 9	1 6 9	1 10 6	3 12 6	4
		2 3 6	White. 2 1 6	2 13 6					
7	Balasore ...	3 10 0	3 12 0	3 8 0	4 0 0	4 0 0	3 12 0	4 0 0	4
8	Puri ...	3 12 0	4 3 0	4 5 0	...	...	...	5 0 0	5
9	Cuttack ...	3 10 0	3 12 0	4 6 0	...	...	...	3 10 0	3

OF 40 SEERS.

MARUA OR RAGI. (Eleusine Corocana.)			KANGNI OR KAKUN, ITALIAN MILLET. (Setaria italica.)		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
...	...	...	4 7 6	4 8 0	3 8 0
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
1 11 6	...	...	...	...	...
to	...	...	...	...	...
1 14 6	1 10 6	1 13 0	1 14 6	1 14 6	2 0 0
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...

1890

CALCUTTA,  
The 10th October, 1893.

in the undermentioned *Marts* of Bengal on the 30th September, 1893.

GRAM, CHANA, CHHOLA, KADALAY OR SUNAGA. ( <i>Cicer Arietinum.</i> )			INDIAN-CORN OR MAIZE. ( <i>Zea Mays.</i> )			ARHAR OR THUR, CADJAN PEA. ( <i>Cajanus indicus.</i> )			FIREWOOD.			SALT.			MARTS.
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	
2 13 0	2 13 0	2 8 6	2 1 0	2 1 0	1 13 0	2 4 0	2 3 0	2 6 1	0 7 0	0 7 0	0 6 0	3 7 0	3 8 0	3 4 3	Calcutta.
2 10 0	2 12 0	2 13 0	...	...	...	...	...	...	0 6 0	0 6 0	0 8 0	3 10 0	3 9 0	3 7 0	Sirajganj.
3 0 0	2 12 0	2 13 0	...	...	...	3 10 0	2 8 0	2 10 0	0 5 0	0 5 0	0 5 0	4 0 0	3 11 0	3 11 0	Dacca.
3 2 0	3 2 0	3 12 0	...	...	...	3 2 0	3 2 0	4 0 0	0 6 0	0 6 0	0 8 0	3 11 0	3 11 0	3 8 0	Narayanganj.
3 4 0	3 8 0	3 8 0	...	...	...	...	...	...	0 8 0	0 8 0	0 5 0	4 0 0	3 14 0	3 14 0	Chittagong.
1 7 0	1 7 6	1 11 6	1 11 9	1 13 0	1 7 9	1 7 9	1 7 6	1 12 0	0 5 0	0 5 0	0 5 0	3 10 0	3 10 0	3 8 0	Patna.
2 12 0	2 12 0	2 14 0	...	...	...	3 14 0	4 0 0	3 10 0	...	...	...	3 8 0	3 8 0	3 10 0	Balasore.
2 5 0	2 8 0	2 14 0	...	...	...	2 8 0	2 10 0	3 0 0	0 8 0	0 8 0	0 8 0	3 4 0	3 5 0	3 6 0	Puri.
2 0 0	(Kalai.) 2 0 0	2 4 0	...	...	...	2 0 0	2 0 0	2 10 0	0 8 0	0 8 0	0 8 0	3 8 0	3 8 0	3 12 0	Cuttack.

Published for general information.

M. FINUCANE,  
*Offg. Secretary to the Govt. of Bengal.*

STATEMENT SHOWING THE STOCKS OF RICE IN AND AROUND CALCUTTA.

STOCK IN HAND AS COMPILED ON—													
NAMES OF MERCHANTS.	1st week of Oct. 1892.	1st week of Nov. 1892.	1st week of Dec. 1892.	1st week of Jan. 1893.	1st week of Feb. 1893.	1st week of March 1893.	1st week of April 1893.	1st week of May 1893.	1st week of June 1893.	1st week of July 1893.	1st week of August 1893.	1st week of Sept. 1893.	1st week of Oct. 1893.
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Balaclava	4,30,500	4,30,500	3,10,000	3,10,000	4,60,000	6,10,000	9,60,000	13,32,000	11,70,000	10,71,000	8,50,000	8,67,000	7,10,500
Udaclava	62,100	57,300	57,800	65,200	75,700	80,500	1,70,200	1,15,000	1,17,300	1,19,700	1,00,400	66,000	61,300
Chitaur, Golabare, Kucateer, Hatkhola, and Gupti Gnat.	5,93,300	5,81,500	5,40,700	5,84,700	7,01,900	6,54,500	6,46,600	6,13,000	6,06,000	6,55,300	6,64,000	6,84,500	7,06,700
Patturichatta, Ponto, and Jorabagao.	3,000	3,500	3,000	3,000	5,000	3,500	3,600	2,000	2,500	3,000	2,000	2,500	3,000
Tolungre, Chetla Kidderore, and Mundhianj	93,000	51,100	40,600	57,000	1,14,200	1,46,400	1,58,700	1,55,300	1,70,200	1,53,300	1,31,500	1,31,900	1,17,600
31 Minor dealers (estimated) ..	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000
Other retail shops, 3,180 in number (estimated).	2,80,000	2,80,000	2,80,000	2,80,000	2,80,000	2,80,000	2,80,000	2,80,000	2,80,000	2,80,000	2,80,000	2,80,000	2,80,000
Baidyabati, Newabranj, Bhadrachwar, and Chanderuakore.	33,000	33,000	33,000	33,000	60,800	75,300	6,000	3,310	42,377	55,275	43,300	25,750	10,814
Total ..	17,45,408	16,35,826	14,87,137	16,08,791	18,57,000	20,80,250	23,10,462	27,42,019	29,01,777	24,90,775	23,27,400	22,27,650	20,90,044
On Railway premises on both sides of the river.	17,218	9,774	21,557	55,580	89,791	32,613	29,773	10,884	11,312	8,865	12,937	18,819	27,127
On boats unloaded ..	27,079	15,606	38,882	47,008	40,000	41,205	27,729	21,379	19,001	13,614	58,431	25,001	9,729
On boats unloaded ..	24,007	15,777	10,200	1,80,439	1,20,600	1,00,775	70,721	24,100	7,005	14,025	19,757	31,041	31,988
Grand total of Stocks ..	18,14,320	16,71,982	15,60,712	18,25,417	20,07,491	22,22,250	24,17,965	28,00,192	27,00,503	25,27,579	24,18,535	23,31,501	21,64,901
Probable stock available for exportation by sea.	71 lakhs	61 lakhs	5 lakhs	71 lakhs	10 lakhs	13 lakhs	151 lakhs	171 lakhs	161 lakhs	141 lakhs	131 lakhs	121 lakhs	11 lakhs

STATISTICAL DEPARTMENT, M. FINUCANE, *Offg. Secy. to the Govt. of Bengal.*  
The 7<sup>th</sup> October, 1893.

**Abstract of the results of Meteorological Observations taken at the Alipore Observatory in the month of September 1893.**

	Inches.	Date.	Hour.
The mean pressure of the month ... ..	29.646		
The average pressure of September from 24 years' registers ...	29.682		
The highest pressure in the month ... ..	29.895	14th	10
The lowest pressure in the month ... ..	29.369	2nd	16
The range of pressure ... ..	0.526		
<hr/>			
The total number of hours of bright sunshine during the month	124.2		
The maximum possible number of hours of sunshine ...	376.0		
<hr/>			
The mean temperature of the month ... ..	82.1		
The average temperature of September from 24 years' registers	83.3		
The highest temperature in the month ... ..	89.6	6th and 28th.	
The lowest temperature in the month ... ..	73.7	12th.	
The range of temperature during the month ... ..	15.9		
The mean daily range of temperature ... ..	8.9		
The greatest range of temperature in one day ... ..	12.4	13th.	
<hr/>			
The mean humidity of the month ... ..	88		
The average humidity of September from 24 years' registers ...	85		
<hr/>			
The mean vapour tension of the month ... ..	0.966		
The average vapour tension of September from 9 years' registers	0.987		
The mean cloud proportion of the month ... ..	6.66		
The average cloud proportion of September from 16 years' registers	7.00		
The total rainfall of the month ... ..	8.74		
The total rainfall indicated by a Beckley's self-registering rain-gauge (mouth of the gauge about 52 feet above the ground)	8.35		
The average fall of September from 48 years' registers ...	10.18		
The greatest fall in 24 hours ... ..	2.59	12th.	
<hr/>			
The number of rainy days in the month ... ..	17		
The average number of rainy days in September from 24 years' registers	21		
<hr/>			
The mean maximum equilibrium temperature of solar radiation during the month ... ..	142.0		
The mean difference of sun and air temperatures ... ..	55.4		
The greatest sun temperature ... ..	158.3	1st.	
The greatest excess of sun over air temperature ... ..	71.2	1st.	
The mean temperature of the nocturnal radiation thermometer on woollen cloth ... ..	75.6		
The mean depression of the nocturnal radiation thermometer below the minimum air temperature at 4 feet above the ground ... ..	2.2		
The greatest depression of the nocturnal radiation thermometer below the minimum air temperature ... ..	4.8	30th.	
<hr/>			
The mean movement of the wind per day ... ..	114.5		
The greatest movement of the wind in one day ... ..	314.0	11th.	
The greatest movement of the wind in one hour ... ..	20.0	25th, 11 to noon.	
<hr/>			
The number of hours with winds from each of the 8 points—			
N. 5, N.E. 68, E. 147, S.E. 175, S. 137, S.W. 37, W. 36, N.W. 29, Calm 86.			

The results of observations at the Alipore Observatory are not rigorously comparable with the registers of past years (at the Park Street Observatory). The barometer is about 3 feet higher at Alipore, and, other things being equal, reads therefore .003 lower. The diurnal range of temperature is also greater at Alipore, and the mean temperature apparently equal; and, finally, the thermometer which furnished the record of temperature at the Surveyor-General's Office during 20 years and upwards is found to read 0.6 higher than the Kew standard thermometer, which is the standard of reference at the present Observatory.

J. H. GULLILAND,

METEOROLOGICAL OFFICE, INDIA;  
Calcutta, the 9th October 1893.

*For Meteorological Reporter to the Govt. of India.*

## Meteorological Report of the Province

METEOROLOGICAL DIVISION.	DISTRICT.	Representative stations.	STATION OBSERVATIONS.														
			AIR PRESSURE.					WIND.			TEMPERATURE.					HUMIDITY.	
			lightest, 8 A.M., barometer reading.	lowest, 8 A.M., barometer reading.	mean, 8 A.M., barometer reading.	mean reduced to sea-level and constant gravity, Lat. 45°.	Variation from normal mean.	mean direction at 8 A.M.	mean velocity in miles daily.	of highest month.	Lowest of month.	Least daily maximum temperature.	Least daily minimum temperature.	Mean daily temperature.	Variation from normal mean.	Mean, 8 A.M., humidity.	Variation from normal mean.
			ing.	ing.	ing.	ing.	ing.	ing.	ing.	ing.	ing.	ing.	ing.	ing.	ing.	ing.	ing.
ORISSA.	Puri	Puri	29.847	29.377	29.657	29.678	—	N 45° W	204	91.7	62.6	87.4	78.0	83.0	—	88	—
		Gopalpur	29.858	29.477	29.677	29.638	—0.43	N 52° W	273	90.7	73.8	87.2	76.9	82.1	—1.6	87	—
		False Point	29.860	29.378	29.653	29.627	—0.05	N 20° W	285	91.0	74.6	86.8	77.8	82.4†	—0.6	87	0
SOUTH-WEST BENGAL.	Cuttack	Cuttack	29.773	29.165	29.589	29.611	—0.70	S 82° W	79	92.7	73.8	88.1	78.0	83.1	—0.8	81	—1
	Balasore	Balasore	29.819	29.253	29.621	29.623	—0.65	N 27° E	118	92.4	73.8	86.8	77.1	82.0	—0.1	92	—
	Midnapore	Midnapore	29.743	29.269	29.555	29.660	—0.52	N 64° E	93	92.3	74.1	88.2	77.1	82.7	—0.2	87	—
	24-Parganas	Calcutta	29.885	29.422	29.650	29.657	—0.39	S 44° E	111	90.1	73.7	86.7	77.8	82.2	—0.5	87	0
NORTH BENGAL.	Saugor Island	Saugor Island	29.874	29.318	29.671	29.640	—0.53	S 41° E	311	91.7	75.0	87.4	78.0	83.2	—0.4	90	0
NORTH BENGAL.	Howrah	Howrah	29.861	29.343	29.673	29.647	—0.24	S 52° E	132	92.3	72.2	88.0	77.5	82.8	—0.2	86	—
	Hooghly	Hooghly	29.861	29.343	29.673	29.647	—0.24	S 52° E	132	92.3	72.2	88.0	77.5	82.8	—0.2	86	—
	Nadia	Krishnagar	29.861	29.343	29.673	29.647	—0.24	S 52° E	132	92.3	72.2	88.0	77.5	82.8	—0.2	86	—
	Khulna	Khulna	29.861	29.343	29.673	29.647	—0.24	S 52° E	132	92.3	72.2	88.0	77.5	82.8	—0.2	86	—
NORTH BENGAL.	Jessore	Jessore	29.803	29.471	29.639	29.670	—0.35	S 55° E	122	93.0	75.9	88.0	78.1	83.0	—0.8	90	+3
	Burdwan	Burdwan	29.818	29.390	29.626	29.671	—0.31	S 44° E	97†	92.4	75.2	87.6	78.1	82.9	—1.2	86	0
	Burdwan	Raniganj	29.569	29.148	29.358	29.603	—0.25	S 44° E	76	95.7	72.9	80.9	76.2	85.1*	—	90	—
	Bankura	Bankura	29.550	29.161	29.357	29.586	—0.45	S 50° E	104	92.1	73.6	87.0	76.6	81.8	—1.5	90	—
NORTH BENGAL.	Birbhum	Birbhum	29.550	29.161	29.357	29.586	—0.45	S 50° E	104	92.1	73.6	87.0	76.6	81.8	—1.5	90	—
	Murshidabad	Berhampore	29.849	29.436	29.650	29.676	—0.31	S 60° E	97	92.7	74.8	87.4	78.1	82.8	—0.8	93	+7
	Pabna	Sirajganj	29.878	29.503	29.695	29.691	—0.21	S 52° E	115	92.1	74.7	87.1	77.6	82.4	—0.3	91	—
	Hogra	Hogra	29.842	29.480	29.677	29.690	+0.07	S 14° E	70	93.2	73.2	87.7	76.2	81.0	—0.6	88	—
NORTH BENGAL.	Rejshahi	Rampur Baulia	29.836	29.408	29.657	29.677	—0.18	S 53° E	126	93.1	74.6	87.1	76.6	81.0	—0.2	88	—
	Malda	Malda	29.837	29.463	29.650	29.678	—	S 48° E	84	93.6	74.5	87.7	77.4	82.6	—	90	—
	Dinajpur	Dinajpur	29.804	29.443	29.623	29.703	—0.05	N 81° E	74	93.6	72.2	87.0	77.2	82.1	—0.8	80	—
	Rangpur	Rangpur	29.802	29.444	29.632	29.709	—0.19	S 73° E	59*	92.8	71.7	87.3	76.4	81.0	—0.8	90	—
NORTH BENGAL.	Jalpaiguri	Jalpaiguri	29.657	29.311	29.487	29.725	+0.00	N 62° E	61	92.9	70.1	86.8	75.1	81.0	—0.2	87	—
	Kuch Bihār	Kuch Bihār	29.657	29.311	29.487	29.725	+0.00	N 62° E	61	92.9	70.1	86.8	75.1	81.0	—0.2	87	—
	Darjeeling	Darjeeling	29.806	29.390	29.674	29.721	—0.28	E	104	92.1	73.6	87.0	76.6	81.8	—1.5	90	—
	Sikkim	Gnatong	29.858	29.491	29.680	29.721	—0.29	S 53° E	74	92.9	71.1	86.6	75.0	81.3	—0.1	80	+1
EAST BENGAL.	Chittagong	Chittagong	29.858	29.491	29.680	29.721	—0.29	S 53° E	102	92.9	71.1	86.6	75.0	81.3	—0.1	80	+1
	Chittagong Hill Tracts	Demagiri	29.858	29.491	29.680	29.721	—0.29	S 53° E	102	92.9	71.1	86.6	75.0	81.3	—0.1	80	+1
	Backergunge	Barisal	29.902	29.409	29.718	29.676	—0.36	S 50° E	89	91.8	74.4	87.7	77.7†	82.6	+0.6	89	—
	Noakhali	Noakhali	29.578	29.513	29.701	29.691	—0.35	S 53° E	160	90.5	73.8	86.2	77.1	81.7	+0.1	91	—
EAST BENGAL.	Faridpur	Faridpur	29.897	29.502	29.710	29.704	—0.16	S 38° E	96	90.9	72.9	85.8	78.1	81.9	—0.6	90	—
	Dacca	Dacca	29.897	29.502	29.710	29.687	—0.32	S 42° E	139	91.1	75.2	88.2	78.2	83.2	—0.4	80	0
	Tippura	Comilla	29.886	29.525	29.723	29.706	—0.23	S 68° E	105	91.8	73.8	88.2	76.1	82.3	—0.2	90	—
	Mymensingh	Mymensingh	29.866	29.508	29.695	29.705	—0.25	S 71° E	100	91.7	73.6	87.1	77.3	82.2	+0.3	90	—
NORTH BENGAL.	Purnea	Purnea	29.706	29.431	29.610	29.688	—0.17	N 85° E	51	94.2	71.2	87.3	77.3	82.3	—1.0	91	+2
	Bhagalpur	Bhagalpur	29.732	29.388	29.652	29.665	—0.24	S 79° E	57	92.7	72.5	87.4	76.5	82.0	—1.1	88	—
	Darbhanga	Darbhanga	29.734	29.396	29.656	29.676	—0.20	S 80° E	134	94.0	70.7	86.5	77.5	82.0	—1.6	88	0
	Muzaffarpur	Muzaffarpur	29.711	29.383	29.542	29.674	—	S 86° E	153	92.7	71.2	86.9	77.0	82.0	—	90	—
NORTH BENGAL.	Champaran	Motihari	29.660	29.338	29.463	29.605	—0.45	S 69° E	142	95.2	70.8	87.7	75.7	81.7	—1.2	86	—
	Suran	Chapra	29.631	29.303	29.528	29.602	—0.10	N 77° E	151	94.3	72.1	87.6	77.1	82.3	—1.1	85	—
	Shahabad	Denri	29.520	29.112	29.316	29.650	—0.43	S 67° E	216	93.8	72.0	86.9	76.7*	81.8*	—0.9	87	—
	Shahabad	Ruzar	29.605	29.126	29.457	29.660	—0.41	N 81° E	171	92.5	71.8	87.5	76.4	81.9	—1.0	86	—
SOUTH BENGAL.	Gaya	Gaya	29.473	29.177	29.321	29.650	—0.40	S 83° E	152	94.5	72.8	86.8	76.9	82.8	—1.6	90	+9
	Patna	Bankipore	29.684	29.349	29.523	29.658	—0.41	S 87° E	180	93.5	71.2	87.2	77.0	82.6	—2.2	86	+1
	Monghyr	Monghyr	29.684	29.349	29.523	29.658	—0.41	S 87° E	180	93.5	71.2	87.2	77.0	82.6	—2.2	86	+1
	Sonthal Parganas	Naya Dumka	29.393	29.020	29.220	29.605	—0.22	S 63° E	161†	92.6	73.8	86.5	76.1	81.3	—0.8	86	—
CHOTA NAGPUR.	Hazaribagh	Hazaribagh	27.862	27.536	27.704	29.652	—0.42	S 3° W	235	88.2	66.8	82.9	70.9	76.9	—1.4	80	+4
	Johardaga	Katruhi	27.737	27.390	27.577	29.640	—0.46	N 61° W	307	87.0	67.9	81.7	70.8	76.2	—0.9	80	—
	Jalamau	Daltanganj	28.098*	28.761*	28.934*	29.616*	—0.46	S 10° W	72*	94.3*	70.6*	87.1*	76.1*	81.6*	—	86*	—
	Singbhum	Chalchala	28.094	28.671	28.917	29.624	—0.46	S 10° E	24*	92.4*	70.2	88.3*	75.4	81.9*	—0.3	87	—
CHOTA NAGPUR.	Sibsonar	Sibsonar	29.616	29.319	29.480	29.770	+0.12	S 79° E	87	93.1	71.9	87.1	75.5	81.3	—1.5	94	+8
	Osairpur	Osairpur	29.810	29.465	29.647	29.717	—0.27	N 55° E	154	91.2	73.3	84.7	76.4	80.6	—0.8	90	—
	Cachar	Silchar	29.884	29.430	29.676	29.730	—0.22	Calim	11	90.6	73.3	91.2	76.2	83.7	+0.7	87	—1
	Cachar	Silchar	29.884	29.430	29.676	29.730	—0.22	Calim	11	90.6	73.3	91.2	76.2	83.7	+0.7	87	—1

\* Mean of 29 days.

† Mean of 28 days.

\* Mean of 24 days.



SUPPLEMENT TO THE CALCUTTA GAZETTE, OCTOBER 11, 1893.

Bengal for the month of September 1893

DISTRICT OBSERVATIONS.															DISTRICT.
CLOUD.		Rainfall.	RAINFALL.												
Mean cloud amount, 8 A. M.	Variation from normal mean, 8 A. M.		Of month.					Since 16th May 1898.							
			Mean of district.	Normal mean.	Variation from mean.	Number of rainy days.	Normal mean number of rainy days.	Mean of district.	Normal mean.	Variation.	Mean number of rainy days.	Normal mean number of rainy days.			
6.2	—	21.82	10.08	10.15	+8.93	17.00	13.15	65.91	44.33	+21.56	56.25	54.86	Puri.		
3.5	—	10.37													
6.0	-0.2	23.39													
5.8	-0.8	14.98		9.33			11.23		44.26			55.13	Cuttack.		
4.9	—	21.65		11.10			12.61		46.41			56.97	Balsore.		
4.8	—	12.93		8.88			11.66		47.48			56.11	Midnapore.		
7.0	-1.2	8.74	10.77	9.00	+1.77	12.71	12.63	60.42	48.75	+1.67	60.67	63.94	24-Pargana.		
8.6	-1.1	16.86													
		13.24		8.49	+4.76	14.00	12.00	60.84	46.16	+14.69	63.00	61.33	Howrah.		
		13.19		8.05	+5.14	12.64	11.74	60.01	45.70	+14.31	63.32	61.94	Hoochly.		
7.6	—	9.42		5.59	+1.73	15.00	11.00	57.20	43.95	+13.25	68.29	58.00	Nadia.		
		10.32													
		11.47		9.54	+1.93	13.00	12.54	67.83	50.93	+16.91	70.87	67.03	Khulna.		
7.8	-0.6	9.11		8.58	+1.53	13.20	11.63	50.43	45.53	+4.90	67.60	60.10	Jessore.		
7.6	-0.2	12.91		9.99	+2.92	12.50	11.03	51.00	42.57	+8.52	56.50	56.73			
4.0	—	10.27		7.67											
0.3	—	12.10		11.03	8.17	+3.76	13.25	12.00	59.86	47.64	+12.22	64.50	Hurdwan.		
				11.41	10.75	+0.66	15.00	12.76	51.10	49.06	+2.04	70.01	Bankura.		
7.9	-0.6	9.90		8.25	10.40	-2.15	13.33	12.70	65.99	45.37	+10.62	63.57	Hirbhum.		
7.9	—	7.33		8.40	10.42	-1.03	12.00	12.08	67.22	47.84	+22.38	71.00	Murshidab.		
6.3	—	9.81		9.62	10.36	-0.74	13.00	11.83	58.53	52.02	+6.51	70.50	Pabna.		
5.8	—	8.00		8.84	11.86	-3.02	13.67	11.87	60.36	43.13	+11.23	67.00	Bogra.		
6.1	—	8.63		15.75	11.05	+4.70	14.00	11.41	55.71	49.69	+6.02	72.50	Rajshahi.		
7.2	—	10.77		15.13	11.32	+3.81	14.00	11.51	65.56	52.70	+12.86	72.10	Malda.		
5.5	—	18.69		14.20	13.44	+0.76	13.00	11.84	77.22	67.89	+9.33	70.00	Dinajpur.		
7.4	—	24.07		24.05	23.93	+0.12	10.00	15.35	103.79	110.39	-1.00	78.00	Rangpur.		
				18.33	20.12	-1.79	12.75	11.07	193.95	101.94	+4.01	77.50	Jalpaiguri.		
8.0	+1.0	30.87		25.65	18.04	+7.61	15.50	16.54	120.50	110.34	+13.02	94.00	Koch Bihar.		
7.1	—	26.29		10.80	14.32	-3.52	15.00	14.13	122.91	103.43	+19.51	86.00	Darjeeling.		
7.0	-0.1	5.63		11.18	12.72	-1.54	14.00	16.50	98.44	73.37	+25.17	96.00	Shikim.		
				14.24	12.12	+2.12	16.75	14.49	81.31	68.64	+12.67	84.00	Chittagong.		
9.0	—	10.76		12.00	10.76	-4.67	18.00	15.25	110.08	96.55	+13.53	90.00	Franks.		
3.5	—	9.99		6.06	9.05	-2.09	14.00	11.26	60.04	44.05	+15.99	68.07	Backergunga.		
6.9	—	7.82		7.86	10.17	-2.31	13.00	11.59	53.20	54.54	-1.35	67.25	Noakhali.		
8.0	+0.8	9.20		10.60	11.33	-0.73	17.50	13.71	70.00	61.85	+8.24	77.50	Faridpur.		
6.5	—	11.05		1.764	-3.40		12.00	13.68	83.13	62.67	+20.46	75.00	Dacca.		
7.2	—	11.43		13.95	+6.85		13.07	11.84	76.74	60.77	+15.97	65.33	Tippera.		
5.6	-0.0	15.31	20.80	8.08				10.41	41.70			52.04	Mymensing.		
7.6	—	14.1		9.25	+3.40	12.00	9.18	41.79	39.21	+2.58	53.34	44.28	Purnea.		
6.2	+0.3	10.49	11.71	8.93	-0.16	9.00	8.96	37.97	37.43	+0.54	51.34	43.09	Bhagalpur.		
5.8	—	10.22	8.83	9.30			8.76	42.25				45.03	Darbhanga.		
6.1	—	17.27		7.07	+1.95	10.00	8.72	37.97	37.43	+0.54	51.34	43.09	Muzaffarpur.		
8.0	—	11.18	9.40									43.38	Champanan.		
4.1	—	9.56										43.09	Saran.		
6.0	—	10.34													
4.2	—	11.86													
6.1	-1.3	8.63	9.84	0.79	+3.05	13.25	8.79	42.43	37.70	+4.73	56.00	44.26	Shahabad.		
7.7	+0.7	7.04	8.21	7.04	+1.17	10.00	9.33		37.06			44.26	Gaya.		
			11.85	7.91	+3.94	14.00	10.10	52.55	30.22	+13.33	56.33	44.26	Patna.		
4.7	—	9.90		10.21			12.00		46.27			45.98	Monghyr.		
8.4	+0.3	30.88		9.07			12.88		45.68			59.44	Sonthal Parg.		
5.9	—	18.55		9.44			14.25		47.41			62.56	Hazaribagh.		
6.8	—	13.86		7.82			11.05		39.03			60.68	Manikpur.		
7.8	—	9.92	9.02	8.32	+1.69	14.00	12.25		47.13	+3.91	67.00	60.38	Patna.		
				7.60			11.60	51.05	42.67			61.02	Sikhartham.		
6.4	-2.0	5.37										59.61	Manbhum.		
7.4	+0.7	7.85											Simgar.		
8.1	+0.5	9.56											Calpara.		
													Cachar.		



SUPPLEMENT TO THE CALCUTTA GAZETTE, OCTOBER 11, 1893.

in Bengal in September 1893.

01	02	03	04	05	06	07	08	09	10	Number of rainy days.	Average number of rainy days.	Total rainfall for the month.	Average rainfall for the month.	Highest rainfall during the month.	Total rainfall from 1st May 1883 to 30th September 1889.	Average rainfall from 1st May to 30th September.	Station.	District.	Meteorological division.
0.20	3.03	2.13	0.15	...	...	...	0.13	...	...	17	13.35	21.82	10.02	0.57	58.84	30.09	Puri	Puri	ORISSA.
0.06	0.90	0.25	0.40	...	...	...	...	...	...	16	13.05	13.77	10.37	4.23	61.18	47.19	Khurda.	...	...
1.44	1.80	1.29	2.40	...	...	...	...	...	...	19	12.45	13.34	9.06	4.15	43.15	40.81	Bampur.	...	...
0.33	0.00	0.30	0.37	0.13	...	...	...	...	...	16	12.85	25.39	11.15	3.59	83.38	50.28	False Point.	...	...
0.53	0.74	...	...	...	...	...	...	...	...	19	?	19.05	?	?	?	?	Gop.	...	...
0.92	1.08	4.05	1.00	...	...	...	...	...	0.32	18	?	17.14	?	4.95	57.00	?	Salpara.	...	...
0.05	0.19	1.75	0.38	...	...	...	...	...	...	17	?	15.87	?	?	?	?	Pipli.	...	...
0.05	0.70	3.02	...	...	...	...	...	...	0.42	14	?	17.39	?	?	?	?	Ranpur.	...	...
0.39	0.85	3.13	...	...	...	...	...	...	...	15	10.53	...	8.50	...	...	33.29	Kumala.	Cuttack.	...
0.48	0.53	4.45	0.18	...	...	...	...	...	...	15	12.50	19.01	8.84	4.45	48.75	43.09	Jagasingpur.	...	...
...	1.05	1.70	1.20	...	...	...	...	...	...	...	12.80	10.07	...	...	...	43.83	Barki.	...	...
0.70	1.23	1.57	0.85	...	...	...	...	...	...	17	11.63	17.10	9.37	3.10	71.09	45.05	Cuttack.	...	...
...	1.07	1.40	0.35	0.30	...	...	...	...	...	...	12.17	...	9.87	...	...	40.05	Kondapara.	...	...
0.82	1.93	0.20	0.15	...	...	...	...	...	...	...	?	?	?	?	?	?	Jajpur.	...	...
1.00	2.25	...	...	...	...	...	...	...	...	...	?	?	?	?	?	?	Dharmasala.	...	...
0.88	0.95	3.02	...	...	...	...	...	...	...	...	?	?	?	?	?	?	Salipur.	...	...
...	1.17	1.40	...	...	...	...	...	...	...	...	?	?	?	?	?	?	Pal Lahara.	...	...
0.15	0.65	0.92	0.30	0.16	...	...	...	...	0.32	17	?	13.10	?	2.51	40.74	?	Nayagarh.	Balasore.	...
0.04	2.20	1.44	0.09	0.30	...	...	...	...	...	16	12.71	22.47	11.10	4.80	66.18	44.28	Akhynpada.	...	...
...	2.30	1.95	0.00	...	...	...	...	...	...	10	12.10	13.26	10.65	5.58	63.13	45.31	Chandball.	...	...
0.50	2.10	...	...	...	...	...	...	...	...	...	12.76	11.24	...	...	...	44.37	Bhadrak.	...	...
0.10	4.94	3.10	1.04	...	...	...	...	...	...	14	13.70	23.83	11.91	4.74	81.49	49.06	Soro.	Balasore.	...
0.81	1.21	1.81	0.78	...	...	...	...	...	0.10	15	11.18	18.01	10.48	4.31	...	40.11	Jullasore.	...	...
...	...	...	...	...	...	...	...	...	...	14	13.18	14.39	11.11	3.09	60.41	48.03	Baripada.	...	...
0.03	0.03	2.58	0.83	0.22	...	...	...	...	...	...	13.05	12.27	...	...	...	51.61	Contal.	Midnapore ...	SOUTH-WEST BENGAL.
0.05	0.06	0.50	1.07	...	...	...	...	...	...	14	9.26	15.02	8.32	6.55	57.35	45.30	Tamluk.	...	...
...	0.75	4.70	0.11	...	...	...	...	...	...	16	12.05	14.00	7.17	4.70	39.46	43.00	Midnapore.	...	...
...	0.07	0.19	4.52</																











**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSERVATIONS  
TAKEN IN ASSAM, FOR THE MONTH OF SEPTEMBER 1893.**

It will be remembered that during August the most noticeable feature of the weather was the absence of cyclonic storms and the consequent scanty rainfall. Though depressions occurred, they were peculiar in two respects. They commenced in Burma, and while crossing the Bay they did not intensify, so that they crossed the west coast as diffused low-pressure areas of slight importance. During September three depressions have formed. They began over Burma in much the same way as those of August, but before crossing the north-west coast they became of considerable intensity, and caused stormy weather both in the north-west of the Bay and over the greater part of Bengal, while very heavy rain fell in places during the passage of all three. While in the east of the Bay they remained diffused and shallow, and they deepened rather rapidly during the last day the centre of the disturbance was over the sea.

In several respects these depressions were very similar, but in others there was an important difference. They all commenced in Burma, and remained slight while in the east of the Bay; they followed almost the same north-westerly course, and deepened to about the same extent, defect being half an inch near the centre. The chief difference was in the course taken after crossing the coast. The centre of the first passed between Balasore and Saugor Island, and then continued its north-westerly direction with unusual rapidity at the rate of more than 20 miles an hour. The centre of the second also passed the coast between Saugor Island and Balasore, but moved very slowly almost due west; while the third passed near Puri, and then took a more northerly course than the first, the centre remaining near the western boundary of Chota Nagpur and Bihar till the disturbance reached the Himalayas, when it filled up very quickly. The influence of these depressions was very different in the different districts of Bengal, notwithstanding their similar character while in the north-west angle of the Bay. Owing to the rapid north-westerly motion of the first, the stormy weather moderated in a few hours, and the heavy rainfall was confined to the south-western districts. Though the second took a more westerly course, its rate of motion was so much lower that the stormy weather and heavy rain continued for some days, but was again confined to the southern and western districts. The third caused strong winds and moderate rainfall in the south-western districts, and very heavy rain in the northern half of the province, especially after the disturbance broke up.

On September 1st a shallow low-pressure area covered the north of the Bay, defect at Akyab and False Point being about  $\cdot 18$  inch. It continued to deepen as the centre approached the north-west coast, but when it was near Saugor Island a rapid rise of pressure commenced in Assam and North Bengal—a rise which seemed quite independent of the causes which led to the formation and development of the disturbance. This rise of pressure at first caused very steep gradients over Bengal, and strong squally easterly winds over the whole province; but as the wave advanced quickly, the distribution of pressure underwent a material change in the course of a few hours, and the disturbed weather as quickly moderated. From being nearly half an inch in defect at Balasore on the morning of the 3rd at 8 A. M., and  $\cdot 2$  inch in all the south-western districts, readings on Monday at the same hour were less than a tenth below the normal at all except a few of the extreme western stations. Rain was general and heavy in the south-western districts during these two days, but amounts quickly diminished after the rapid recovery of pressure, and during the two following days, but especially on the 6th, very little rain fell anywhere in the province, while the sky had become almost cloudless in places.

The fine weather that followed the disturbance was interrupted in the northern districts, where a brisk fall of pressure caused a slight local depression and heavy rain in North Bengal and afterwards in Bihar.

As the rapid recovery of pressure on the 3rd did not extend far south, readings became higher in Bengal than in Burma, and the second depression began to form. Its development was accelerated by a brisk fall of pressure in Burma, while the rapid rise continued in the north. It passed into the Bay area as a shallow diffused depression, and moved towards the north-west angle, increasing in a way similar to the previous one. On the 9th the cyclonic circulation of winds was very regular, squally weather was beginning in the east of the Bay, and showers were almost general in Lower Bengal, while the rainfall in North Bengal and Bihar had practically ceased. There was little change at the coast stations on the 10th; but as the centre approached the coast between Saugor Island and Balasore on the 11th, pressure fell very rapidly, and gradients became much steeper to the east and north of the area of lowest pressure. With this increase of gradients weather became squally in Lower Bengal, especially in the south-western districts.

As before a wave of rising pressure advanced from the east, but more slowly, and the steep gradients with rough rainy weather continued till the 14th, when only scattered showers fell in East Bengal and part of South-West Bengal. On the 15th a large number of stations reported no rain, and on the 16th it had almost ceased. During these days a ridge of relatively high pressure formed over Bengal and the north of the Bay; and when pressure began to fall, as it did slowly on the 15th and 16th, this led to rainfall in the more northern districts which had hitherto during the disturbance remained practically rainless.



Settled weather then obtained for some days in Bengal, but a fall of pressure almost immediately began over the Bay, and continued slowly for several days, giving rise to the third disturbance of the month.

The first signs of the commencing disturbance were observable in the northerly winds at the Orissa stations and the faint indraught across the east coast of the Bay on the 18th. Except the continued slow fall of pressure and the more regular cyclonic circulation, there was little change till the 20th, when the depression was better defined, but even then it was so diffused that the position of its centre, though nearer the west coast, was still doubtful. Gradients became steeper in the south-east of the Bay and winds strengthened, but velocity was never above 20 miles an hour at Diamond Island. The depression continued to drift slowly westward on the 21st, and on the 22nd it was near the South Orissa coast. Pressure fell more rapidly at the Orissa stations; and as it was then rising moderately in the east of the Bay and briskly in North Bengal and Assam, the disturbance was becoming more concentrated. Stormy weather rapidly developed, and when the centre of the depression crossed the coast near Puri on the morning of the 23rd, gradients were very steep and strong winds prevailed over the south of Orissa and the adjacent part of the Bay. The squally weather was general in Lower Bengal and Chota Nagpur, and heavy rain was falling. The centre of the disturbance was to the west of Ranchi on the 24th, and on the 25th it was in the west of Bihar, moving in a north-easterly direction. The intensity of the storm had abated very little at that time, as wind velocity in parts of Bihar was as much as 40 miles an hour, and pressure was still nearly half an inch below the normal. On the 26th there was no trace of the depression except defect of a tenth of an inch at Motihari; and as the rapid rise of pressure continued on the 27th, the distribution was then practically normal. The rainfall in Bihar and North Bengal was unusually heavy on the 25th and 26th, especially on the latter date, and the falls on these two days brought up the total for the month in these districts to above the normal, though during the rest of the month rainfall was almost steadily deficient. After the recovery of pressure weather moderated, beginning in Orissa and extending gradually northwards and eastwards. On the 29th a low-pressure area again appeared over Burma; and as readings increased towards the north-west, the wind circulation became northerly, and fine clear weather prevailed both over the province and the Bay.

*Pressure.*—Large changes of pressure occurred during the passage of the depressions across the south-western districts, and in the last case towards the end of the month in Bihar. As stated above, the depth of the depressions was almost the same, and defect differed little from half an inch near the centre when it crossed the coast. In the first case the recovery was very rapid owing to the depression moving quickly to the westward; while in the two others it came more slowly, and continued for two or three days. Mean pressure for the month is about  $\cdot 07$  inch below the normal in Orissa,  $\cdot 05$  inch in Chota Nagpur and part of South-West Bengal,  $\cdot 04$  inch in Bihar and East Bengal, and about  $\cdot 02$  inch in North Bengal and Assam.

*Temperature.*—Cloudy weather has been more prevalent than usual, especially in the early part of the month, and day temperatures have at times been many degrees below the normal. The mean maximum temperature is below the normal in all districts except part of East Bengal and Assam, defect varying from half a degree in places to  $3^{\circ}$  in the west of South Bihar. Night temperatures have not been so low relatively to the normal, the difference being generally less than half a degree except in Bihar, where it is about  $1^{\circ}$ . The mean daily temperature is normal in East Bengal and below elsewhere by between a half and one degree in all districts except Bihar, where it is  $1\cdot 2^{\circ}$ . Before the approach of the disturbances high temperatures prevailed; and as the cloudy weather extended northwards, the usual fall took place. The cooling effect of the first was very local, but a few days afterwards a cool wave commenced in Assam and spread along the northern districts. During the second disturbance the greatest defect was  $7^{\circ}$  in part of the south-western districts; during the third there was very cool weather in Bihar, defect remaining between  $8^{\circ}$  and  $10^{\circ}$  for several days. The rise of temperature after rainfall ceased was, as usual, rapid.

*Rainfall.*—As heavy rain fell during the passage of the depressions, which crossed the western districts, there is a large excess in Orissa and Chota Nagpur, and a moderate excess in South-West Bengal and Bihar, while in North Bengal the fall is normal and in East Bengal there is defect of nearly 2 inches. The falls in the northern districts occurred chiefly towards the end of the month, and the large excess in North Bihar as well as the average fall in North Bengal is due to the very heavy rain which fell on the 25th and 26th, when the third depression broke up amongst the hills.

The heaviest rain fell in the neighbourhood of the Orissa coast. Excess at False Point is  $14\cdot 24$ , and at Puri, Chandbali, and Balasore between 11 and 12 inches, but it diminishes rather rapidly towards the interior, being only 4 inches at Bhanpur, Bhadrak, and Baripada. There is also a large excess in part of Midnapur, Howrah and Hooghly, Ghatal, Moheureka and Jahanabad receiving about 10 inches more than the normal. The only other places where excess was more than 10 inches are—Darjeeling, Kalimpong, Chanchal, Churaman, Araria, and Jhumra Hill. Over the greater part of East Bengal defect is generally between one and three inches, and the only places where it is more than 5 inches are Noakhali and Jamalpur in the Mymensingh district. In the other districts falls are all in excess, but by irregular amounts, ranging up to 10 inches.

Actual falls vary from 10 to 25 inches, except in a tract of country running from south-east to north-west, including the greater portion of East Bengal, except the Sunderbans, but becoming much narrower towards the west, where it includes part of the Sonthal Parganas, Monghyr, Patna, Muzaffarpur, and Saran. From this central tract amounts increase towards the north-east and more slowly to the south. The following places in the southern region have received more than 20 inches:—Puri, False Point, Chandbali, Balasore, Garhbets, and Jahanabad, and most of the other stations between 10 and 20 inches, the distribution being rather irregular. In North Bengal and the east of Bihar falls are generally between 15 and 25 inches, and only three places received more 25 inches, viz. Darjeeling, Kurseong, and Baxa.

The comparison of the actual rainfall of the various large divisions of the province during the month is most accurately shown in the form of a percentage. The figures representing the rainfall for the month calculated in this way are included in the following table under the heading of September. This table really gives a condensed summary of the rainfall statistics of the present year up to date for each meteorological division, the first nine columns giving the actual average falls in each division for each month expressed as a percentage of the normal, while the tenth column gives the actual rainfall of the first nine months as a percentage of the normal rainfall for that period:—

METEOROLOGICAL DIVISIONS.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Actual rainfall of first nine months of 1893 expressed as a percentage of the normal fall for the period.
Orissa ...	422	309	238	89	607	99	67	84	186	155
South-West Bengal ...	120	464	160	115	225	183	94	64	123	131
North Bengal ...	104	377	145	213	96	109	168	90	100	117
East Bengal ...	80	291	123	149	207	134	103	100	85	123
North Bihar ...	170	357	134	208	84	100	151	85	143	123
South Bihar ...	116	602	188	255	171	156	122	74	132	126
Chota Nagpur ...	155	585	226	151	212	185	121	72	170	141

The following table contains full data for the comparison of the actual and normal rainfall of the month of September in all districts of the province. The figures are derived from the average and actual rainfall of the rain-recording stations in each district, due allowance or weight being made for the area which each station represents. This gives a more accurate average than the arithmetical means given in the weekly and monthly meteorological tables. The first column gives the normal or actual average district rainfall as determined from the rainfall observations of the past fifteen years; the second column gives the actual district rainfall as determined from the weighted actual rainfalls of the month at the reporting stations in each district; the third column expresses the ratio of the actual district fall of the past month to the normal rainfall as a percentage, and the fourth column states as a percentage how much the district rainfall for the month varied from the normal:—

Percentage Table for September 1893.

DIVISION.	DISTRICT.	Normal district rainfall for September.	Actual district rainfall for September 1893.	Percentage of actual to normal rainfall.	Percentage excess (+), defect (—).
Orissa ...	Puri	...	9.98	19.25	+ 93
	Cuttack	...	9.53	16.88	+ 77
	Balasore	...	11.28	18.83	+ 67
	Midnapore	...	8.85	14.70	+ 66
	24 Parganas	...	9.62	9.57	— 21
	Howrah	...	8.64	14.38	+ 66
	Hooghly	...	8.43	13.39	+ 47
South-West Bengal	Burdwan	...	7.87	10.92	+ 39
	Bankura	...	8.53	12.15	+ 42
	Birbhum	...	9.16	11.42	+ 25
	Nadia	...	8.52	10.25	+ 20
	Khulna	...	9.33	11.47	+ 23
	Jessore	...	8.43	10.18	+ 21
	Murshidabad	...	9.77	9.40	— 4
East Bengal	Chittagong	...	14.07	10.06	— 29
	Backergunge	...	11.36	13.30	+ 17
	Noakhali	...	16.26	10.83	— 33
	Faridpur	...	8.68	6.91	— 21
	Dacca	...	10.05	7.82	— 22
	Tippera	...	11.58	10.76	— 7
	Mymensingh	...	12.94	9.90	— 24

Percentage Table for September 1893—conold.

DIVISION.	DISTRICT.	Normal district rainfall for September.	Actual district rainfall for September 1893.	Percentage of actual to normal rainfall.	Percentage excess (+), deficit (-).
North Bengal	Pabna	10.27	8.49	83	- 17
	Bogra	10.70	9.80	92	- 8
	Rajshahi	11.30	8.70	77	- 23
	Malda	10.53	15.75	150	+ 50
	Dinajpur	11.17	15.13	135	+ 35
	Rangpur	13.00	14.62	113	+ 13
	Kuch Bihar	21.95	18.04	82	- 13
North Bihar	Jalpaiguri	23.93	24.05	100	0
	Darjeeling	17.66	30.87	175	+ 75
	Purnea	13.53	20.21	149	+ 49
	Bhagalpur	8.87	16.79	189	+ 89
	Darbhanga	9.25	10.94	118	+ 18
	Muzaffarpur	8.27	8.81	107	+ 7
	Champaran	9.05	17.27	191	+ 91
South Bihar	Saran	7.68	9.60	125	+ 25
	Shahabad	7.20	13.24	182	+ 82
	Gaya	6.90	9.51	138	+ 38
	Patna	7.20	7.89	110	+ 10
	Monghyr	7.75	12.34	159	+ 59
	Sonthal Parganas	8.06	11.01	137	+ 37
	Hazaribagh	8.10	15.05	186	+ 86
Chota Nagpur	Lohardaga	9.44	15.05	159	+ 59
	Palamau	7.82			
	Singbhum	8.38	9.92	118	+ 18
	Manbhum	7.68	13.60	177	+ 77

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the month of September 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.							RAINFALL.						
	Highest observed during month.	Lowest observed during month.	Averages for month.			Average mean of month above or below normal mean of month.	Of month.			Rainy days.		Since 16th May 1893.		
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in month.	Normal average number in month.	Variation.	Average.	Normal average.
Orissa	92.7	62.67	87.3	77.7	82.5	-0.5	19.03	10.25	+8.80	15.00	12.32	+2.68	64.98	45.13
South-West Bengal	95.7	72.2	87.9	77.6	82.7	-0.0	11.00	9.04	+2.05	13.53	11.94	+1.59	57.44	46.53
North Bengal	93.6	70.1	87.2	76.6	81.9	-0.5	13.37	13.43	-0.05	12.60	12.27	+0.33	73.03	64.21
East Bengal	91.8	72.0	87.1	77.2	82.2	0	10.27	12.08	-1.81	11.72	13.46	+1.26	70.59	67.05
North Bihar	95.2	70.7	87.2	76.9	82.1	-1.2	13.79	9.64	+4.15	11.08	9.74	+1.34	51.05	48.60
South Bihar	94.5	71.2	87.5	77.0	82.2	-1.3	10.50	7.98	+2.52	13.00	10.18	+2.82	45.85	39.74
Chota Nagpur	92.4	66.8	84.3	73.4	78.3	-0.9	14.80	8.71	+6.09	16.29	12.67	+3.62	59.09	45.03
Assam	86.1	71.0	87.7	76.0	81.9	-0.5								

\* Daltanganj not included.

METEOROLOGICAL OFFICE, BENGAL,  
The 10th October 1893.

C. LITTLE,  
Offg. Meteorological Reporter to the Govt. of Bengal.

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.											
			AIR PRESSURE.			WIND.		TEMPERATURE.						
			Mean barometric height 8 a.m. reduced to 59°.	Mean reduced to sea-level and constant gravity, lat. 45°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.
ORISSA.	Puri	Puri	29.779	29.734	—	N	102	93.7	1, 2, & 4 Oct.	78.6	1st Oct.	92.9	79.0	86.3
		Gopalpora	29.788	29.740	—0.040	NNW	171	92.2	2, 3 & 6 ..	74.1	3 & 6 ..	91.2	74.7	83.0
		False Point	29.775	29.738	—0.055	Wly	147	93.5	4th ..	74.6	2nd ..	91.8	77.2	84.5
	Cuttack	Cuttack	29.712	29.735	—0.053	Calm & W	41	93.2	6th ..	74.8	1, 2 & 5 ..	92.3	76.5	84.0
SOUTH-WEST BENGAL.	Balasore	Balasore	29.729	29.731	—0.005	NW	55	92.4	4th ..	73.8	1, 2, 5 & 6 Oct.	91.0	74.8	82.9
	Midnapore	Midnapore	29.810	29.741	—0.064	N	31	92.3	4 to 6 ..	74.1	1 & 6 ..	91.4	75.2	83.3
	24-Parganas	Calcutta	29.756	29.723	—0.072	Variable	45	90.1	3 to 6 ..	75.2	7th ..	89.7	77.0	83.4
		Saugor Island	29.750	29.720	—0.074	Wly	182	90.2	4th ..	75.0	7th ..	89.6	78.0	84.3
	Howrah	Howrah	29.734	29.719	—0.080	Wly	86	91.8	4 & 5 ..	74.7	5th ..	90.7	76.8	83.8
	Nadia	Krishnagar	29.737	29.717	—0.085	NWly	43	92.5	4th ..	77.4	5 & 7 ..	91.5	78.5	85.0
	Jessore	Jessore	29.680	29.735	—0.064	NW	39	91.1	4 to 6 ..	76.2	2 & 4 ..	90.5	77.8	84.2
		Burdwan	29.459	29.744	—0.052	NNW	36	95.2	5 & 7 ..	73.4	1, 4 to 6 Oct.	94.4	74.0	84.2
	Bankura	Bankura	29.461	29.711	—0.082	Calm	27	92.1	4 to 6 ..	73.6	1st ..	91.3	75.7	83.5
	Birbhum	Birbhum	29.712	29.727	—0.079	Calm	24	90.6	5th ..	77.3	4th ..	89.6	78.6	84.1
NORTH BENGAL.	Murshidabad	Murshidabad	29.720	29.716	—0.095	Calm	20	91.1	2 & 4 ..	75.7	5th ..	90.2	77.0	83.6
	Pabna	Sirajganj	29.705	29.721	—0.061	SE	36	90.2	2 to 5 ..	74.2	5th ..	89.8	76.3	83.1
	Bogra	Bogra	29.698	29.718	—0.070	N & calm	68	90.1	4 to 6 ..	76.1	5th ..	89.6	76.9	83.3
	Rajshahi	Rampur Baula	29.699	29.721	—	NW	54	91.6	3 & 4 ..	73.0	6th ..	90.2	75.3	82.8
	Malda	Malda	29.661	29.737	—0.063	Variable to	26	91.6	3 & 6 ..	74.2	5th ..	91.0	76.7	83.9
	Dinajpur	Dinajpur	29.656	29.732	—0.086	Variable	21	91.3	3 & 6 ..	72.7	5th ..	90.7	77.1	83.0
	Rangpur	Rangpur	29.512	29.750	—0.065	Calm	30	90.9	2, 6 & 7 ..	73.6	2 & 4 ..	90.1	74.4	82.4
	Jalpaiguri	Jalpaiguri	23.000	—	—0.033	NE	62	98.6	2nd ..	62.6	3 & 7 ..	65.8	53.5	59.6
	Kuch Bihar	Kuch Bihar	—	—	—	Variable	60	92.9	1st ..	33.1	6th ..	51.3	35.5	43.4
	Darjeeling	Darjeeling	29.704	29.738	—0.086	Variable	60	89.2	1st ..	74.1	3 to 5 ..	86.1	75.0	80.6
EAST BENGAL.	Chittagong	Chittagong	29.743	29.701	—0.099	Calm	38	90.8	2 & 5 Oct.	73.9	6th ..	89.6	77.3	83.5
	Chittagong Hill Tracts	Demagiri	29.722	29.712	—0.084	SEly	72	89.5	2nd ..	73.8	4th ..	86.6	76.2	81.4
	Backergunge	Backergunge	29.730	29.733	—0.086	Calm & N	29	89.5	2nd ..	77.4	7th ..	88.2	79.4	83.8
	Noakhali	Noakhali	29.737	29.721	—0.078	Calm & S	60	91.3	2nd ..	74.8	4th ..	88.6	75.9	82.3
	Tippera	Tippera	29.711	29.722	—0.082	Variable	51	90.2	2 & 4 ..	75.6	5 & 6 ..	89.4	76.9	83.2
	Mymensingh	Mymensingh	29.652	29.751	—0.074	Calm	12	91.1	7th ..	75.2	6th ..	90.4	77.5	83.9
	Purnea	Purnea	29.607	29.719	—0.072	Calm	4	90.7	3 & 4 ..	73.0	4th ..	90.2	74.5	82.4
	Bhagalpur	Bhagalpur	29.609	29.723	—0.085	Calm	47	90.4	3, 4 & 6 ..	75.2	7th ..	90.0	76.9	83.5
	Darbhanga	Darbhanga	29.593	29.740	—	Calm	43	90.7	2, 3 & 5 ..	73.2	7th ..	90.1	75.9	83.0
	Muzaffarpur	Muzaffarpur	29.538	29.719	—0.072	WNW	41	91.2	2nd ..	70.8	7th ..	90.2	74.1	82.2
NORTH BIHAR.	Champaran	Motihari	29.598	29.732	—0.042	W	67	90.8	3 to 7 ..	72.0	7th ..	90.7	74.7	81.7
	Saran	Chapra	29.453	29.759	—0.041	SW	120	90.3	4 to 6 ..	71.0	1, 5 & 7 ..	89.8	71.9	80.9
	Shahabad	Dehri	29.553	29.747	—0.048	W & WSW	63	91.5	6 & 7 ..	73.3	6th ..	90.5	74.3	82.4
	Gaya	Arrah	29.546	29.728	—0.056	Variable	29	92.0	6th ..	73.5	5 to 7 ..	91.6	74.4	83.0
	Patna	Gaya	29.614	29.744	—0.050	Variable	127*	93.4	4th ..	73.8	3, 4 & 6 ..	91.6	74.3	83.0
	Monghyr	Bankipore	29.602	29.737	—0.064	W	55	90.5	3rd ..	74.7	7th ..	89.8	73.6	82.7
	Sonthal Parganas	Naya Dumka	29.286	29.730	—0.060	Variable	113*	90.6	2 to 5 ..	73.3	5 & 6 ..	90.2	74.2	82.3
	Hazaribagh	Hazaribagh	27.708	29.740	—0.060	NW	108	85.7	3 & 4 ..	66.3	3rd ..	84.8	66.9	75.9
	Lohardaga	Ranchi	27.674	29.744	—0.044	Calm & NW	147	85.0	4th ..	66.4	3rd ..	83.6	67.8	75.7*
	Palamau	Daltongunj	29.623	29.736	—0.044	Calm	8	91.4	1 & 5 ..	70.2	4 & 5 ..	90.8	71.2	81.0
SOUTH BIHAR.	Singbhum	Chaibassa	29.476	29.765	—0.087	SE	—	92.1	2nd ..	74.0	3 & 4 ..	89.4	75.4	82.4
	Manbhum	Manbhum	29.462	29.731	—0.093	Variable	51	91.2	3rd ..	74.8	4 to 6 ..	89.3	75.8	82.5
	Sibsagar	Sibsagar	29.478	29.729	—0.098	Calm	—	95.6	6th ..	73.3	1 & 2 ..	92.2	75.1	83.7
	Goalpara	Goalpara	—	—	—	—	—	—	—	—	—	—	—	—

*Explanation.—Summary.*—The normal means of air pressure and temperature are the arithmetical average or means of the reading during the same period. The humidity of the atmosphere is expressed at percentage, saturated air being presented by 100. A clear sky is denoted by 0 and an overcast sky by 91. The rainfall the normal mean are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional stations district, &c. from total rainfall at the subdivisional stations in the district sending in returns divided by the number of stations. A rainy day is one of

for the week ending Saturday, the 7th of October 1893.

DISTRICT OBSERVATIONS.															DISTRICT.		
Variation from normal mean.	Mean 8 A.M. temperature.	Average humidity at 8 A.M.	Average cloud amount at 8 A.M.	Rainfall of week at observing station.	OF WEEK.				RAINFALL.								
					Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Since 1st of month.			Since 16th May 1893.					
									Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.			
—	84.0	74	1.4	Nil	Nil	1.80	0.00	2.50	Nil	1.80	—1.80		52.35		Puri.		
—0.5	80.2	78	0.1	Nil												Outback.	
+1.6	82.2	81	4.1	Nil													Salasore.
—0.4	81.5	72	2.3	Nil	Nil	1.54	0.00	1.86	Nil	1.54	—1.54		51.77					Midnapore.
+0.7	81.5	85	0.6	Nil	0.03	1.64	0.16	1.80	0.03	1.64	—1.61		54.34		24 Parganas.		
+1.0	81.8	75	2.0	0.04	0.50	0.05	0.30	1.43	0.50	0.95	—0.45		53.30			Howrah.	
+0.9	82.0	79	2.7	0.88	1.04	1.09	0.86	1.84	1.04	1.09	—0.05	61.17	54.85	+6.32			Hooghly.
+0.0	82.3	84	6.0	2.07													
					0.75	1.17	1.00	1.74	0.75	1.17	—0.42	61.40	52.15	+9.25	Khulna.		
					0.28	0.93	0.67	1.54	0.28	0.93	—0.65	62.02	51.46	+10.56		Jessore.	
+1.7	84.3	76	3.1	0.47	0.48	1.15	1.00	1.88	0.48	1.15	—0.67	55.58	49.75	+5.83			Burdwan.
+1.4	83.4	84	2.9	0.36	0.36	1.02	0.33	1.57	0.36	1.02	—0.82	68.03	50.00	+11.03				Bankura.
+0.4	82.0	76	1.7	0.04	Nil	1.00	Nil	1.24	Nil	1.00	—1.00	52.31	47.70	+4.61	Birbhum.		
+1.6	79.5	81	0.4	Nil	Nil	1.00	Nil	1.24	Nil	1.00	—1.00	52.31	47.70	+4.61		Murshidabad.	
+1.1	80.0	77	2.0	Nil	Nil	1.05	Nil	1.78	Nil	1.05	—1.05	50.87	53.47	—2.60			Pabna.
+0.8	82.5	85	2.4	Nil	0.04	1.11	0.16	1.75	0.04	1.11	—1.07	50.93	50.88	—0.05				Bogra.
+1.1	82.2	86	2.3	Nil	Nil	1.02	0.00	1.25	Nil	1.02	—1.02	67.28	54.11	+13.17	Rajshahi.		
+0.8	83.1	85	0	0.16	0.04	1.31	0.25	1.52	0.04	1.31	—0.27	58.57	57.97	+0.60		Malda.	
+1.1	84.0	82	1.6	0.02	0.40	1.67	0.67	1.49	0.40	1.67	—1.27	60.71	50.75	+9.96			Dinajpur.
—	83.2	82	0	Nil	Nil	1.03	0.00	1.12	Nil	1.03	—1.03	55.63	50.00	—1.07				Rangpur.
+0.9	83.8	82	0.3	Nil	0.37	1.49	0.20	1.47	0.37	1.49	—1.12	60.11	60.01	+0.10	Jalpaiguri.		
+1.8	83.0	82	0.3	Nil	Nil	1.80	0.00	1.33	Nil	1.80	—1.80	77.48	70.24	+7.24		Kuch Bihar.	
+2.1	80.5	84	4.6	Nil	Nil	1.90	0.00	1.90	Nil	1.90	—1.90	115.46	127.13	—11.67			Darjeeling.
+2.2	60.1	88	4.3	0.02	0.50	2.64	0.25	2.18	0.50	2.64	—2.14	119.92	128.22	—8.30				Sikkim.
—	44.9	70	1.9	0.12	...	...	...	...	...	...	...	...	...	...	Onittagong.		
—1.1	79.1	92	8.1	8.54												Onittagong Hill.	
					3.12	2.88	0.00	3.00	3.12	2.88	+0.24	101.58	83.42	+18.16			Teesta.
+1.1	82.1	90	7.3	0.88	0.39	1.40	1.00	2.11	0.39	1.40	—1.10	81.62	70.47	+11.15				Baokergunge.
—0.3	81.5	93	3.4	3.82	4.12	2.16	3.50	2.47	4.12	2.16	+1.96	114.28	108.12	+6.16	Noakhali.		
+1.8	83.4	86	3.7	Nil	0.18	1.18	0.33	1.61	0.18	1.18	—1.00		55.33			Faridpur.	
					0.33	1.14	1.00	1.57	0.33	1.14	—0.79	61.91	61.35	+0.56			Dacca.
—0.4	81.1	80	0.0	2.05	1.00	1.53	2.25	2.05	1.00	1.53	—0.53	71.41	70.16	+1.25				Tippara.
+0.0	80.4	92	0.7	0.17	0.29	1.44	0.80	1.58	0.20	1.44	—1.15	53.74	70.78	+17.04	Mymensingh.		
+1.2	81.5	80	1.7	0.10	0.03	1.15	0.33	1.17	0.03	1.15	—1.12	70.77	69.40	+1.37		Purnea.	
+0.3	82.2	81	1.7	Nil	Nil	1.02	0.00	1.22	Nil	1.02	—1.02		47.37				Bhagalpur.
+0.7	82.7	82	0.1	Nil	Nil	0.04	0.00	0.05	Nil	0.04	—0.04		40.07					Darbhanga.
—	82.0	84	0.6	Nil	Nil	1.18	0.00	1.00	Nil	1.18	—1.18	41.76	44.31	—2.55	Muzaffarpur.		
+1.4	81.4	82	0	Nil	Nil	1.65	0.00	0.87	Nil	1.65	—1.65		47.88			Champaran.	
+0.8	83.0	75	0.3	Nil	Nil	2.03	0.00	1.04	Nil	2.03	—2.03		43.20				Saran.
—0.7	81.3	74	0	Nil													
+0.3	80.6	70	1.1	Nil	Nil	1.41	0.00	0.99	Nil	1.41	—1.41		41.42		Gaya.		
+1.3	80.3	81	0.4	Nil												Patna.	
—0.4	79.0	85	1.1	Nil	Nil	1.08	0.00	0.90	Nil	1.06	—1.06		42.25				Moukhyr.
—0.0	82.8	72	0.0	Nil	Nil	1.01	0.00	0.94	Nil	1.01	—1.01		41.52					Sonhal Parganas.
					Nil	1.00	0.00	1.07	Nil	1.00	—1.00	47.50	44.06	+3.44	Hazribagh.		
+1.0	82.0	74	0.3	Nil	Nil	1.09	0.00	1.40	Nil	1.09	—1.00		53.19			Lohardaga.	
—1.6	75.0	72	1.9	Nil	Nil	1.11	0.00	1.58	Nil	1.11	—1.11		52.68				Palamau.
—0.5	74.9	69	0.7	Nil	Nil	0.50	0.00	1.30	Nil	0.50	—0.50		53.23					Singhbhum.
					Nil	1.10	0.00	1.05	Nil	1.10	—1.10		44.04		Manbhum.		
+0.8	78.9	79	0.3	Nil	Nil	0.73	0.00	1.20	Nil	0.73	—0.73	53.54	52.52	+1.02		Assam.	
					Nil	1.06	0.00	1.40	Nil	1.06	—1.06		48.67				
+1.3	79.1	93	3.7	Nil													
+1.8	70.3	96	2.0	Nil													
+1.3	70.7	90	7.3	2.30													

for the last ten years. The variations are *negative* when the mean for the week is less than the corresponding normal mean, and *positive* when greater. The numbers denoting cloud amount represent the part of the sky covered the whole sky being denoted by 10. Under the head District observations or for the period in question during the past ten years. The means of the district are the numerical average of the rainfall returned received in the which at least a tenth of an inch fell.









**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSER-  
VATIONS TAKEN IN ASSAM, FOR THE WEEK ENDING 8 A.M.,  
SATURDAY, THE 7TH OF OCTOBER 1893.**

FINE settled weather has prevailed over the Bay and the province throughout the week, with the exception of a few scattered showers in the eastern districts, owing to a very shallow depression, which commenced in Burma and moved northwards over the east of the Bay into Lower Bengal, where it filled up. The rainfall was almost entirely confined to Chittagong, Noakhali, and Backergunge, but the falls in these districts were sufficiently heavy to give an average of an inch and a quarter for the whole of East Bengal. At the beginning of the week pressure was lowest in Burma, and gradients were steeper to the west than towards the north, so that light northerly or westerly winds prevailed with almost cloudless weather. Temperature was very nearly normal, there being a small defect in the western and a small excess in the eastern districts. Pressure fell slowly on the 1st and briskly on the 2nd, when there was defect of more than a tenth of an inch in all districts except Orissa, Chota Nagpur, and the west of Bihar. The shallow depression was then over the north-east angle of the Bay, and moderately heavy rain was falling in parts of Chittagong, Chittagong and Satkania receiving nearly 2 inches. The fall of pressure continued slowly on the 3rd, but on the 4th it had begun to rise, and the depression slowly filled up. Rainfall continued in the south-eastern districts for several days, and as the depression, though daily becoming more diffused, was drifting westwards, the rainfall extended to the western districts, and was fairly general in South-West Bengal on the 7th, the last day of the week. The light westerly indraught towards the area of low pressure continued with almost no change, and temperature remained above the normal by about 1° in Assam and North Bengal and by smaller amounts in the other districts, except where local rainfall occurred.

Pressure fell slowly or moderately during the early part of the week, and rose slowly during the latter half. Before the shallow depression began to fill up defect was greatest at some of the East Bengal stations, but was nowhere more than .15 inch. The means for the month are below the normal everywhere by amounts varying from .05 inch in Orissa and Chota Nagpur to nearly .1 inch in the east of the province.

Temperature was low in the western districts for some days, especially in Chota Nagpur, also towards the end of the week in Lower Bengal, while weather was cloudy and local showers were falling. Elsewhere it continued above the normal by one or two degrees. The mean excess is 1° or more in Assam, North Bengal, and South-West Bengal, nearly 1° in North Bihar, and less than half a degree in Orissa, South Bihar, and East Bengal. In Chota Nagpur there is defect of about half a degree.

Rainfall.—No rain has fallen in Orissa, Chota Nagpur, and Bihar. In East Bengal scattered rain fell during the greater part of the week, chiefly in Chittagong, Noakhali, and Backergunge, while showers fell in North Bengal on the 4th, the heaviest being 1.77 inches at Bhagatpur and 1.68 inches at Baxa. In South-West Bengal there was fairly general rain on the 7th. The average fall for East Bengal is 1.22 inches, for South-West Bengal .4 inch, and North Bengal .15 inch.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 7th of October 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.						RAINFALL.											
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.		Rainy days.			Since 1st of month.		Since 16th May 1893.				
			Of highest of each day.	Of lowest of each day.	Of mean of each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.		
Orissa	...	...	83.7	73.8	81.8	76.4	84.1	+0.3	Nil	1.65	-1.65	0.00	2.01	-2.01	Nil	1.65	53.15	46.46
South-West Bengal	...	...	95.2	73.4	81.0	76.9	84.0	+1.0	0.40	1.04	-0.64	0.53	1.60	-1.08	0.40	1.04	57.47	47.50
North Bengal	...	...	91.6	72.7	80.3	76.2	83.3	+1.1	0.15	1.59	-1.44	0.20	1.48	-1.28	0.15	1.59	73.09	65.76
East Bengal	...	...	91.3	73.8	88.1	76.8	82.5	+0.3	1.22	1.36	-0.34	1.44	1.91	-0.47	1.22	1.56	79.29	69.01
North Bihar	...	...	91.4	70.8	80.3	75.0	82.0	+0.7	Nil	1.30	-1.30	0.09	1.05	-1.05	Nil	1.30	82.10	45.10
South Bihar	...	...	93.4	71.0	80.6	74.1	82.4	+0.1	Nil	1.43	-1.13	0.00	1.10	-1.10	Nil	1.13	46.15	40.71
Chota Nagpur	...	...	91.4	66.3	80.4	68.6	77.7	-0.6	Nil	0.95	-0.95	0.00	1.43	-1.43	Nil	0.95	57.72	46.22
Assam	...	...	95.6	73.3	80.3	75.4	82.0	+1.4										

METEOROLOGICAL OFFICE, BENGAL,

The 10th October 1893.

C. LITTLE,

Offg. Meteorological Reporter to the Govt. of Bengal.

**Abstract of the Results of the Barometric and Thermometric Observations taken at 10 a.m. at the Meteorological Office, Chowringhee, in the month of September 1893.**

		Inches.	Date.
The mean pressure at 10 A.M. during the month	...	29.701	
The mean temperature at 10 A.M. during the month	...	84.7	
The highest temperature during the month	...	92.0	28th.
The lowest temperature during the month	...	74.0	12th.
The absolute range of temperature during the month	...	18.0	
The mean daily range of temperature during the month	...	10.4	
The greatest range of temperature in one day during the month	...	14.2	30th.
The mean 10 A.M. humidity during the month	...	82	
The mean 10 A.M. vapour tension during the month	...	9.75	
The total rainfall of the month	...	8.51	
The greatest fall in 24 hours	...	1.82	11th.
The number of rainy days in the month	...	13	

J. H. GILLILAND,

*For Meteorological Reporter to the Govt. of India.*

METEOROLOGICAL OFFICE, INDIA,

*The 9th October 1893.*

**Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 1st to 7th October 1893.**

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.						HYGROMETRY.			Rainfall, past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
October	1st	29.803	83.1	91.0	15.2	75.8	87.6	79.5	.900	76.1	69	Nil.
"	2nd	725	84.5	92.0	15.0	77.0	89.1	79.5	.879	75.3	65	"
"	3rd	707	85.2	92.5	14.7	77.8	88.6	79.5	.886	75.6	66	"
"	4th	718	85.1	92.0	13.8	78.2	89.6	80.5	.919	76.7	66	"
"	5th	777	84.9	92.0	14.2	77.8	88.6	78.5	.840	74.0	63	"
"	6th	803	83.4	90.0	13.2	76.8	87.2	79.5	.904	76.2	70	"
"	7th	787	81.4	87.3	12.3	75.0	85.1	80.5	.981	78.7	81	1.25

The mean 10 A.M. pressure of the seven days	...	...	Inches.
			29.764
The mean temperature of the seven days	...	...	84.0
The extreme variation of temperature	...	...	17.5
The maximum temperature	...	...	92.5
The mean 10 A.M. relative humidity of the seven days	...	...	69
The total fall of rain from 1st to 7th October 1893	...	...	Inches.
			1.25
The daily mean temperatures are the crude means of maximum and minimum temperatures.			

J. H. GILLILAND,

*For Meteorological Reporter to the Govt. of India.*

METEOROLOGICAL OFFICE, INDIA,

*The 9th October 1893.*

Results of the Meteorological Observations taken at the Alipore Observatory from  
1st to 7th October 1893.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Mi. in air.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
Oct	1st	149.4	10.3	29.728	82.8	80.1	12.5	76.6	77.9	0.891	75.7	89	NNW and calm...	61	Nil	Clear, <i>a</i> .
"	2nd	152.9	5.2	657	82.9	80.9	12.5	77.4	78.7	0.928	77.0	83	Wly, N, W and calm	21	"	Partially cloudy, <i>a</i> .
"	3rd	146.4	10.2	613	83.3	90.2	12.3	77.9	78.4	0.907	76.3	80	W, WNW and calm.	41	"	Chiefly clear, <i>a</i> .
"	4th	146.3	9.3	690	83.2	89.9	12.1	77.5	78.4	0.907	76.3	81	WNW and calm...	42	"	Chiefly clear, <i>a</i> .
"	5th	148.5	6.7	725	82.3	90.0	12.5	77.5	77.8	0.895	75.9	82	NNW and calm...	19	"	Partially cloudy, <i>a</i> .
"	6th	151.3	3.9	743	82.6	89.6	12.8	76.8	78.0	0.898	76.0	81	Nly, E and calm...	46	Not measurable.	Chiefly cloudy, o, g, d. <i>a</i> .
"	7th	153.0	3.4	741	78.5	86.3	11.1	75.2	77.1	0.913	76.5	93	N and variable...	59	1.37	Chiefly cloudy, o, g, d, p, t.

The mean pressure of the seven days	...	...	...	Inches.
The average pressure of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	29.704
The total number of hours of bright sunshine	...	...	...	Hours.
The maximum possible number of hours of sunshine	...	...	...	49.0
The mean temperature of the seven days	...	...	...	82.8
The average temperature of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	82.2
The extreme variation of temperature	...	...	...	83.3
The maximum temperature	...	...	...	15.0
The highest velocity of the wind in one hour	...	...	...	90.2
The highest pressure of wind on one square foot	...	...	...	Miles.
The mean relative humidity	...	...	...	8
The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	lbs.
The total fall of rain from 1st to 7th October 1893	...	...	...	?
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	%
The total fall from 1st January to 7th October 1893	...	...	...	83
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	82
The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.	...	...	...	Inches.
The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.	...	...	...	1.37
The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.	...	...	...	1.73
The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.	...	...	...	79.23
The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.	...	...	...	60.55
The mouth of the rain-gauge is one foot above the ground.	...	...	...	
o, overcast; g, gloomy; d, drizzling rain; p, passing temporary showers; t, thunder; <i>a</i> , dew.	...	...	...	

## IRRIGATION DEPARTMENT, —BENGAL.

Statement showing heights over mean sea-level and low-water in the Rivers Ganges, Bhagirathi, Jalangi, and Brahmaputra, for the month of September 1893.

Date.	RIVER GANGES.										RIVER BHAGIRATHI.	RIVER JALANGI.	RIVER BRAHMAPUTRA.
	Mirzapur.	Benares.	Buxar.	Dinapore.	Monghyr.	Sahibganj.	Rampur Boalia.	Goalundo.			Berhampore.	Saropganj.	Gowhatty.
	66	134	48	177	87	247	110	381	94	471	90	691	120
Distance.	From Allahabad.	From Allahabad.	From Mirzapur.	From Benares.	From Buxar.	From Benares.	From Dinapore.	From Benares.	From Monghyr.	From Benares.	From Sahibganj.	From Benares.	From Rampur.
	Height over zero, sea-level.	Height over zero, sea-level.	Height over zero, sea-level.	Height over zero, sea-level.	Height over zero, sea-level.	Height over zero, sea-level.	Height over zero, sea-level.	Height over zero, sea-level.	Height over zero, sea-level.	Height over zero, sea-level.	Height over zero, sea-level.	Height over zero, sea-level.	Height over zero, sea-level.
1st	19.25	22.47	21.80	18.47	15.03	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
2nd	23.36	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
3rd	28.81	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
4th	30.67	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
5th	33.43	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
6th	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
7th	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
8th	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
9th	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
10th	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
11th	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
12th	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
13th	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
14th	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
15th	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
16th	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
17th	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
18th	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
19th	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
20th	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
21st	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
22nd	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
23rd	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
24th	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
25th	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
26th	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
27th	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
28th	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
29th	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50
30th	34.60	23.47	21.80	15.45	17.73	17.90	11.04	15.05	26.97	18.25	2.25	21.94	24.50

CALCUTTA,

The 10th October 1893.

O. C. LEES,

Offg. Under-Secy. to the Govt. of Bengal.

## IRRIGATION DEPARTMENT, BENGAL.

IRRIGATION OPERATIONS FOR THE OFFICIAL YEAR 1893-94.

Areas leased for irrigation up to end of August 1893.

CIRCLE.	District.	Canal.	DETAILS OF AREAS LEASED.										Rainfall, 1893-94.		Rainfall, 1892-93.		REMARKS.					
			Estimated full discharge.	Average discharge in month.	Discharge utilized.	Approximate area of land irrigated during the year up to the end of the month.	Approximate area of land under irrigation up to the same date last year.	Annual lease.					Grand Total.	During month.	Up to end of month.							
								Kharif.	Rabi.	Sugar-cane.	Bhadol.	Hot-weather.				Total.						
ORISSA	Cuttack	Taldanda, 1st reach	1,342	180	66	4,500	7,970	4,689	113	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Inches.	Inches.
		Ditto, 2nd "	566	132	26	1,460	22,973	2,909	96	...	...	...	...	...	...	...	...	...	...	...	...	...
		Kendrapara	765	41	...	1,460	22,973	2,909	...	10	...	...	...	...	...	...	...	...	...	...	...	...
		Gobri	1,067	715	602	45,131	50,622	28,262	1,807	25	...	...	...	...	...	...	...	...	...	...	...	...
		Do. Extension	372.82	43	32	1,362	2,400	709	40	...	...	...	...	...	...	...	...	...	...	...	...	...
		Pattamundi	684	66	66	654	2,923	775	9	...	...	...	...	...	...	...	...	...	...	...	...	...
		High Level, Range I	808	245	153	3,562	11,214	2,409	11	...	...	...	...	...	...	...	...	...	...	...	...	...
		Ditto, do. II	306.81	127.76	94.6	1,863	2,254	1,737	52	1	...	...	...	...	...	...	...	...	...	...	...	...
		Jaipur Canal	727.16	9.06	94.6	1,863	2,254	1,737	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		High Level, Range III	727.16	166.26	154.22	15,245	21,406	10,682	...	...	181	...	...	...	...	...	...	...	...	...	...	...
		Total	...	...	...	85,867	151,189	55,623	217	...	...	...	...	...	...	...	...	...	...	...	...	
SOUTH-WEST DIV.	Midnapore	Total of the corresponding period of last year	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Midnapore	1,411	763	471	55,864	78,514	63,767	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Panchkura	522	83	20	1,385	6,448	6,546	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total Reaches, Ranges I & II	...	...	...	306	472	7.3	...	...	...	...	...	...	...	...	...	...	...	...	...	...
SONG	Shahabad	Total	...	...	...	57,418	85,334	71,676	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total of the corresponding period of last year	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Western Main	4,342	2,409	265	18,333	17,728	14,367	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Buxar	1,292	663	610	6,806	60,679	51,409	...	...	...	...	...	...	...	...	...	...	...	...	...	...
SONG	Patna	Total	1,466	1,262	1,147	2,664	2,956	2,009	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total of the corresponding period of last year	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Patna	1,466	1,262	1,147	2,664	2,956	2,009	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Patna	1,466	1,262	1,147	2,664	2,956	2,009	...	...	...	...	...	...	...	...	...	...	...	...	...	...
SONG	Patna	Total	425,307	471,066	...	425,307	471,066	129,690	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total of the corresponding period of last year	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Patna	425,307	471,066	...	425,307	471,066	129,690	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Patna	425,307	471,066	...	425,307	471,066	129,690	...	...	...	...	...	...	...	...	...	...	...	...	...	...

CALCUTTA,  
The 10th October 1893.O. C. LEE,  
Offg. Under-Secy. to the Govt. of Bengal.

## IRRIGATION DEPARTMENT, BENGAL.

*Abstract statement showing Tollage on Canals in Bengal classed as Major Works for the month of August 1893, as compared with that of the corresponding month of the previous year.*

CANALS.	TOLLAGE, 1893-94.						TOLLAGE, 1892-93.					
	During the month.			To end of the month.			During the month.			To end of the month.		
Orissa Circle.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Taldanda Canal System	1,500	4	11	7,193	2	9	477	1	3	4,539	6	9
Kendrapara ditto	8,716	1	7	34,129	11	11	5,033	6	11	19,370	6	9
High Level, Range I	1,749	14	3	6,462	4	3	1,601	3	3	4,300	15	6
Ditto, " II	356	14	9	1,359	6	6	212	11	6	699	8	0
Ditto, " III	270	8	3	896	15	6	163	11	6	401	11	0
Jajpur Canal	47	6	6	137	12	10	21	0	3	68	3	6
Total Orissa Circle	12,641	2	3	50,179	5	9	7,509	2	8	29,380	3	6
South-Western Circle.												
Midnapore Canal	8,676	3	3	40,876	15	9	12,475	4	0	52,745	12	0
Hijili Tidal Canal	5,377	11	0	28,625	9	0	3,689	5	3	25,511	12	3
Total South-Western Circle	14,053	14	3	69,502	8	9	16,164	9	3	78,257	8	3
Sone Circle.												
Patna Canal System	2,269	15	9	10,811	0	6	1,580	7	6	11,323	12	6
Arrah ditto	1,267	13	6	10,329	13	9	1,488	14	3	9,298	4	9
Buxar ditto	498	12	0	3,331	15	3	619	15	3	5,246	15	9
Total Sone Circle	3,976	9	3	24,472	13	6	3,689	5	0	25,869	1	0
GRAND TOTAL	30,671	9	9	1,44,154	12	0	27,363	0	11	1,33,506	12	9

## Government Transport Service.

CANAL.	TOLLAGE, 1893-94.									TOLLAGE, 1892-93.								
	During the month.						To end of the month.						During the month.					
	Passengers.	Goods.	re- cepts.	Passengers.	Goods.	re- cepts.	Passengers.	Goods.	re- cepts.	Passengers.	Goods.	re- cepts.	Passengers.	Goods.	re- cepts.	Passengers.	Goods.	re- cepts.
Orissa Circle.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.
High Level	1,606	287	1,770 8 0	12,265	2,794	12,293 8 8	1,415	601	1,114 15 0	13,599	2,401	4,386 1 7						
Total Orissa Circle	1,606	297	1,770 8 0	12,265	2,794	12,293 8 8	1,415	601	1,114 15 0	13,599	2,401	4,386 1						

## Total Navigation Receipts.

CANALS.	EARNINGS, 1893-94.						EARNINGS, 1892-93.					
	During the month.			To end of the month.			During the month.			To end of the month.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Orissa Canals	14,411	10	3	62,472	14	5	8,624	1	8	33,766	5	1
Midnapore Canal	8,676	3	3	40,876	15	9	12,475	4	0	52,745	12	0
Hijili Tidal Canal	5,377	11	0	28,625	9	0	3,689	5	3	25,511	12	3
Sone Canals	3,976	9	3	24,472	13	6	3,689	5	0	25,869	1	0
Total	32,442	1	9	1,56,448	4	8	28,477	15	11	1,37,892	14	4

CALCUTTA,  
The 10th October 1893.

O. O. LRES,  
Offg. Under-Secy. to the Govt. of Bengal.

## IRRIGATION DEPARTMENT, BENGAL.

*Abstract statement showing Tollage on Canals in Bengal classed as Minor Works and Navigation for the month of August 1893, as compared with that of the corresponding month of the previous year.*

CANALS.	TOLLAGE, 1893-94.						TOLLAGE, 1892-93.					
	During the month.			To end of the month.			During the month.			To end of the month.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Calcutta and Eastern Canals ...	22,279	12	0	96,053	15	0	21,495	2	3	95,810	9	3
Tolly's Nala ...	6,482	9	0	29,292	4	6	7,251	14	9	29,590	4	0
Total ...	28,762	5	0	1,25,316	3	6	28,747	1	0	1,25,400	13	3
Orissa Coast Canal ...	11,103	4	9	48,040	5	0	2,913	12	0	21,188	14	9
Nadia Rivers ..	31,442	15	6	81,501	15	10	30,179	7	6	69,116	15	9
GRAND TOTAL	71,308	9	3	2,54,888	8	1	61,840	4	6	2,15,706	11	9

CALCUTTA,  
The 10th October 1893.

O. C. LEFS,  
Offg. Under-Secy. to the Govt. of Bengal.

## CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 7th October 1893, as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 7TH OCTOBER 1893.			WEEK ENDING SATURDAY, THE 5TH OCTOBER 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ...	816	86,280	960	272	84,350	1,418
Jute ...	234	94,615	1,600	250	68,675	1,130
Firewood ...	165	1,03,325	1,569	140	66,625	1,023
Other articles ...	1,001	2,12,887	3,177	917	1,95,030	2,909
Total ...	2,216	4,96,107	7,306	1,579	4,14,680	6,486

## EAST INDIAN RAILWAY.

Statement of Goods Traffic in Staples carried during the four weeks ending 26th August 1893, as compared with the same period of 1892.

STAPLES.	1892.		1893.		INCREASE.		DECREASE.	
	Weight.	Freight.	Weight.	Freight.	Weight.	Freight.	Weight.	Freight.
	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.
Cotton, raw ...	40,595	34,895	5,021	2,973	...	...	35,574	31,022
Cotton twist and yarn—								
1.—European ...	10,087	9,615	9,024	9,035	...	...	1,063	630
2.—Indian ...	18,073	11,052	22,039	12,789	4,206	1,737	...	...
Cotton piece-goods—								
1.—European ...	93,790	1,02,253	83,550	97,512	...	...	10,240	4,771
2.—Indian ...	9,815	7,106	11,121	6,639	1,306	...	...	467
Drugs and chemicals—								
1.—Intoxicating other than opium ...	344	193	215	108	...	...	129	85
2.—Non-intoxicating ...	6,417	7,317	6,120	5,997	...	...	297	1,320
Dyes and tans—								
1.—Indigo ...	3,590	898	8,185	2,070	4,595	1,172	...	...
2.—Myrabolams ...	3,554	1,201	2,712	881	...	...	842	367
3.—Aniline dyes ...	310	579	154	172	...	...	156	407
4.—Cutch ...	2,370	1,000	1,902	903	...	...	468	93
5.—Paints and colours ...	7,016	3,534	6,985	1,908	...	...	31	1,325
6.—Others ...	1,537	1,729	588	377	...	...	949	1,352
Grains—								
1.—Wheat ...	5,87,136	1,23,201	1,90,000	78,390	...	...	3,97,136	73,875
2.—Rice ...	3,15,813	60,003	4,12,085	72,594	66,272	12,591	...	...
3.—Jowar and bajra ...	26,313	1,011	6,776	1,066	...	...	19,537	2,953
4.—Gram ...	1,83,400	12,162	1,13,317	55,726	...	...	70,083	6,436
5.—Indigo seed ...	2,960	3,414	12,887	6,326	...	...	1,763	3,088
6.—Seed, other than oil seeds ...	11,264	12,220	4,907	9,049	...	...	7,357	2,314
7.—Others ...	4,10,800	1,13,548	2,90,129	87,076	...	...	1,20,671	25,282
Hides and skins—								
1.—Hides of cattle ...	22,495	11,801	13,251	5,565	...	...	9,244	6,236
2.—Skins of sheep &c. ...	21,061	11,145	11,640	1,403	...	...	9,421	9,744
Horns ...	1,030	1,024	1,201	800	...	...	439	164
Jute—								
1.—Raw ...	15,313	2,985	16,113	2,407	820	...	...	378
2.—Gunny bags and cloth ...	71,244	1,904	17,500	21,115	...	...	23,777	15,846
Lan—								
1.—Stick ...	22,081	9,313	23,772	9,763	1,691	...	...	2,450
2.—Shillac ...	11,398	8,304	12,153	8,933	...	626	...	...
Leather—								
1.—Manufactured ...	2,712	5,021	2,966	4,021	...	...	446	1,003
2.—Manufactured ...	3,376	3,385	3,223	3,115	...	...	153	170
Liquors—								
1.—Beer ...	10,083	1,808	6,438	2,652	...	...	3,645	2,156
2.—Wines ...	2,39	1,811	1,872	5,014	...	...	...	767
3.—Spirits ...	2,384	3,471	1,301	1,687	...	...	1,083	1,809
Metals—								
1.—Copper, unwrought ...	5,458	1,777	6,401	7,071	843	401	...	...
2.—Brass, unwrought ...	5,180	1,111	1,889	3,713	1,700	2,602	...	...
3.—Brass and copper, wrought ...	12,850	6,418	1,601	6,310	...	...	...	72
4.—Iron ...	1,82,014	50,811	2,10,192	94,152	58,178	1,361	...	...
5.—Tin ...	1,591	1,036	4,189	8,777	...	...	210	450
6.—Others ...	10,406	7,102	8,687	5,750	...	...	1,719	1,343
Oils—								
1.—Castor ...	3,153	973	2,511	870	...	...	642	216
2.—Kerosene ...	73,100	32,914	78,993	36,011	5,894	3,097	...	...
3.—Others ...	11,508	1,114	12,722	4,710	1,214	...	...	204
Oil-seed—								
1.—Mustard ...	3,48,621	1,10,815	1,97,523	62,126	...	...	1,51,098	47,722
2.—Rape and mustard ...	1,32,364	1,198	1,21,990	30,218	...	...	10,374	3,380
3.—Til oil ...	16,011	1,810	9,88	728	...	...	6,123	1,113
4.—Castor ...	63,867	10,834	38,121	9,039	...	...	25,746	7,796
5.—Poppy ...	31,259	10,185	41,616	13,894	10,357	3,100	...	...
6.—Others ...	16,162	1,509	5,233	18,437	41,091	13,128	...	...
Opium ...	670	371	401	309	...	...	179	103
Paper and pasteboard ...	10,233	6,851	10,494	5,946	261	...	...	537
Provisions—								
1.—Cheese ...	32,140	21,701	27,543	21,263	...	...	4,597	3,441
2.—Dried fruits and nuts ...	1,585	1,488	15,170	13,570	...	...	2,400	1,018
3.—Cocoa ...	8,027	1,527	2,446	1,385	...	...	6,081	3,140
4.—Lard ...	1,029	2,856	11,122	8,107	6,103	5,111	...	...
5.—Lard ...	61,077	2,698	67,016	32,180	6,939	...	...	209
6.—Others ...	3,24,209	72,311	3,00,824	61,861	6,555	...	...	20,450
Salt ...								
1.—Salt-petre ...	47,009	20,574	19,421	7,921	...	...	28,189	12,653
2.—Boix ...	822	510	245	149	...	...	577	361
3.—Other saline substances ...	33,560	8,780	50,388	13,611	16,938	4,851	...	...
Silk, raw—								
1.—Foreign ...	...	...	...	18	...	13	...	...
2.—Indian ...	2,321	1,097	1,021	608	...	...	1,303	450
Silk piece-goods—								
1.—Foreign ...	5	6	17	44	12	38	...	...
2.—Indian ...	239	270	282	250	23	...	...	11
Spices—								
1.—Pepper ...	2,783	3,342	2,718	2,080	...	...	...	662
2.—Other ...	7,470	3,197	6,438	2,867	...	...	2,041	530
Sugar—								
1.—Drained ...	11,134	4,854	12,772	6,105	1,638	1,247	...	...
2.—Undrained ...	89,220	14,713	1,30,056	23,145	50,736	8,743	...	...
Stones and lime ...	4,67,690	63,015	3,12,048	46,133	...	...	1,55,642	18,762
Tea—								
1.—Foreign ...	...	...	2	1	2	1	...	...
2.—Indian ...	1,734	1,069	3,970	3,272	2,236	2,173	...	...
Timber, &c.—								
1.—Lumber ...	70,941	13,884	67,672	16,122	...	1,234	3,269	...
2.—Lardwood ...	5,391	304	12,261	1,033	6,872	609	...	...
Tobacco ...	88,362	15,671	88,021	15,098	...	145	...	...
Umbrellas ...	387	408	188	188	...	...	191	270
Wool—								
1.—Raw ...	892	400	1,704	1,101	712	632	...	...
2.—Piece-goods—								
a.—European ...	142	51	84	47	...	...	108	4
b.—Indian ...	2,446	3,831	2,134	2,646	...	...	712	1,195
3.—Shawls ...	...	...	...	...	...	...	...	...
All other articles of merchandise ...	2,31,250	86,981	3,72,196	1,06,114	1,40,946	13,139	...	...
Military stores ...	43,82,010	14,32,878	37,40,873	11,94,714	...	...	6,42,046	2,38,104
Coal—								
1.—For public ...	21,124	33,441	16,411	28,102	...	...	4,713	15,379
2.—Railway ...	41,15,524	6,10,127	35,73,907	5,37,087	...	...	5,41,617	73,040
Railway Materials—								
1.—For construction and revenue ...	10,02,884	38,768	13,79,225	44,047	3,76,341	5,870	...	...
Live-stock ...	...	7,640	...	5,068	...	...	...	1,868
Total ...	1,01,09,220	23,06,914	94,08,789	18,02,237	...	...	7,95,440	2,16,077

C. W. CLARKE, Assistant Auditor.

TRAFFIC AUDIT OFFICE, GOODS DIVISION, JAMALPUR, the 6th October 1893.



## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 30th September 1893, on 1,610½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	295,744*	Rs. A. P. 2,81,122 9 0*	Mds. s. 29,87,504 10	Rs. A. P. 5,70,505 15 0	Rs. A. P. 14,975 7 0	Rs. A. P. 9,78,401 15 0	78,568½	103,063½	181,632
Or per mile of railway ...	.....	174 8 11	.....	353 11 3	9 4 0	643 8 11	.....	.....	.....
For previous 12½ weeks of half-year ...	3,459,940	36,29,848 8 0	2,76,00,750 30	59,07,630 4 0	1,71,338 6 0	97,08,826 0 0	929,407½	1,161,982½	2,090,090
Total for 13½ weeks ...	3,745,684	39,19,979 15 0	3,02,88,255 0	64,86,945 8 0	1,86,311 13 0	1,05,84,227 15 0	1,007,976	1,364,288	2,392,263
COMPARISON.									
Total for corresponding week of previous year ...	260,218	2,60,527 2 9	22,31,425 20	4,95,446 9 4	16,583 13 3	7,79,567 9 4	75,591	95,773	171,364
Per mile of railway corresponding week of previous year ...	.....	161 12 3	.....	307 19 2	10 4 9	479 11 2	.....	.....	.....
Total for corresponding 13½ weeks of previous year ...	3,412,627†	32,84,706 14 0	2,95,07,832 80	64,22,368 0 2	2,10,563 5 2	99,17,678 4 1	984,876	1,214,401	2,199,277

## TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 30th September 1893, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	16,911*	Rs. A. P. 4,154 0 0*	Mds. s. 10,785 20	Rs. A. P. 262 10 0	Rs. A. P. 29 0 0	Rs. A. P. 4,445 10 0	894	51	945
Or per mile of railway ...	.....	186 11 2	.....	11 12 10	1 4 10	199 12 10	.....	.....	.....
For previous 12½ weeks of half-year ...	205,427†	50,148 9 0†	1,07,930 36½	3,368 9 ½	195 0 6½	53,732 2 0	10,928	910	11,838
Total for 13½ weeks ...	222,371	54,302 0 0	1,18,716 10	3,651 3 0	224 0 0	58,177 12 0	11,812	994	12,806
COMPARISON.									
Total for corresponding week of previous year ...	21,012	5,393 11 1	4,190 20	173 10 0	8 3 6	5,575 8 7	878	68	946
Per mile of railway corresponding week of previous year ...	.....	242 6 7	.....	7 12 10	0 6 11	250 9 4	.....	.....	.....
Total for corresponding 13½ weeks of previous year ...	216,060†	59,850 10 3	74,432 6	2,874 8 0	99 10 6	62,821 12 9	12,124	612	12,736

\* The decrease is due to journeys of passengers during the Durga Puja in the corresponding period of 1892.

† Added number of passengers 1,100 and Rs. 506

‡ Deducted maunds 4 and

§ Added

on account of difference between the approximate and audited figures for the week ended 30th August 1893.

## DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for week ended 30th September 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	16,526	Rs. A. P. 12,837 10 0	Mds. s. 48,354 20	Rs. A. P. 8,345 1 0	Rs. A. P. 36 0 0	Rs. A. P. 21,218 11 0	6,210	2,817½	9,027½
Or per mile of railway ...	.....	79 8 8	.....	51 11 3	0 5 7	131 7 6	.....	.....	.....
For previous 12½ weeks of half-year ...	*243,040	*1,06,108 12 0	†6,62,769 10	†80,010 9 0	†392 0 0	2,52,671 5 0	74,990½	83,308	158,108½
Total for 13½ weeks ...	259,566	1,79,006 0 0	7,01,123 30	84,355 10 0	428 0 0	2,78,790 0 0	81,200½	86,625½	167,826
COMPARISON.									
Total for corresponding week of previous year ...	10,310	18,575 2 10	30,834 0	6,878 13 0	55 0 0	20,508 15 10	6,688	1,578	8,266
Per mile of railway corresponding week of previous year ...	.....	84 1 9	.....	42 9 11	0 5 5	127 1 1	.....	.....	.....
Total for corresponding 13½ weeks of previous year ...	224,117	1,68,104 14 6	4,80,601 30	82,707 7 6	668 11 3	2,41,369 1 3	85,492	81,558	167,050

\* Added number of passengers 979 and Rs. 637

† Do. maunds 75,680 and

‡ Do.

on account of difference between the approximate and audited figures for the week ended 30th August 1893.

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K.-D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for the week ended 30th September 1893, on 778 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	158,980	76,430 0 0	10,95,740 0	2,15,430 0 0	27,360 0 0	3,10,340 0 0	27,728	33,170	60,898
Or per mile of railway ...	204	98 0 0	1,408 0	277 0 0	*17 0 0	*302 0 0	.....	.....	.....
For previous 12 weeks of half-year ...	41,980,000	8,35,443 0 0	93,07,345 0	14,34,720 0 0	1,79,448 0 0	28,40,611 0 0	343,873	360,055	704,928
Total for 13 weeks ...	2,138,080	9,11,873 0 0	7,04,02,065 0	20,50,170 0 0	2,06,808 0 0	31,68,851 0 0	371,001	303,825	705,426
COMPARISON.									
Total for corresponding week of previous year ...	160,309	84,880 0 0	8,97,096 0	1,81,710 0 0	36,806 0 0	3,01,005 0 0	28,000	35,874	63,874
Per mile of railway corresponding week of previous year ...	214	108 0 0	1,155 0	234 0 0	*23 0 0	*305 0 0	.....	.....	.....
Total to corresponding date of previous year ...	1,905,415	8,40,803 0 0	92,41,982 0	21,54,635 0 0	2,22,300 0 0	32,17,798 0 0	355,907	472,543	827,740

\* Excluding steamer earnings.

† Audited up to week ending 5th August 1893.

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for the week ended 30th September 1893, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	84,340	10,010 0 0	61,500 0	4,560 0 0	210 0 0	14,770 0 0	3,670	2,002	5,672
Or per mile of railway ...	275	80 0 0	493 0	36 0 0	2 0 0	118 0 0	.....	.....	.....
For previous 12 weeks of half-year*	397,195	1,21,503 0 0	6,72,876 0	55,082 0 0	1,220 0 0	1,77,805 0 0	45,073	24,054	69,127
Total for 13 weeks ...	431,535	1,31,513 0 0	7,34,466 0	59,632 0 0	1,430 0 0	1,92,576 0 0	48,743	26,056	74,799
COMPARISON.									
Total for corresponding week of previous year ...	32,190	12,035 0 0	47,174 0	4,224 0 0	105 0 0	16,364 0 0	3,670	2,002	5,672
Per mile of railway corresponding week of previous year ...	258	96 0 0	377 0	34 0 0	1 0 0	131 0 0	.....	.....	.....
Total to corresponding date of previous year ...	394,400	1,20,014 0 0	6,95,203 0	60,741 0 0	2,028 0 0	1,88,783 0 0	48,561	26,910	77,471

\* Audited up to week ending 5th August 1893.

## DACCA STATE RAILWAY.

Approximate Return of Traffic for the week ended 30th September 1893, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	17,610	5,610 0 0	52,920 0	4,180 0 0	80 0 0	9,870 0 0	2,487	737	3,242
Or per mile of railway ...	295	65 0 0	615 0	49 0 0	1 0 0	115 0 0	.....	.....	.....
For previous 12 weeks of half-year*	263,903	64,142 0 0	2,61,396 0	19,826 0 0	1,747 0 0	25,715 0 0	30,283	9,610	39,899
Total for 13 weeks ...	281,513	69,752 0 0	3,14,316 0	24,096 0 0	1,827 0 0	26,585 0 0	32,770	10,353	43,123
COMPARISON.									
Total for corresponding week of previous year ...	13,044	5,072 0 0	25,842 0	1,792 0 0	682 0 0	7,540 0 0	2,211	737	2,948
Per mile of railway corresponding week of previous year ...	162	59 0 0	300 0	21 0 0	8 0 0	88 0 0	.....	.....	.....
Total to corresponding date of previous year ...	212,713	68,336 0 0	2,37,256 0	18,098 0 0	8,058 0 0	26,447 0 0	33,716	9,118	42,829

\* Audited up to 5th August 1893.

## BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIERHUT STATE RAILWAY)

Approximate return of traffic for the week ending 30th September 1893, on 756 miles open

	COACHING TRAFFIC		MERCHANDISE AND MINERAL TRAFFIC		Other earnings (estimated) including steam-boat	Total earnings.	*TRAFFIC TRAIN-MILES RUN.		
	Number of passengers	Receipts	Weight carried	Receipts			Coaching.	Merchandise	Total.
		Rs	Mds	R	Rs	Rs			
total traffic for the week on 756 miles open	87,410	54,011	2,08,060	58,113	8,130	71,500	17,191	10,503	27,724
or per mile of railway	115.89	71.81	272.51	76.3	11.03	94.58			
or previous 14 weeks of half year*	1,083,845	1,111,165	1,17,136	9,44,104	1,13,001	8,08,423	1,08,710	175,631	3,02,350
Total for 14 weeks	1,171,111	1,117,705	28,22,256	37,311	1,11,901	13,19,211	183,860	186,224	370,074
COMPARISON									
Total for corresponding week of previous year on 756 miles open	77,251	48,170	2,21,770	5	7,10	43,377	13,304	13,111	26,520
or mile of corresponding week of previous year	90.67	67.31	277.44	1.3	9.71	8.84			
Total to corresponding date of previous year	1,101,912	50,008	3,04,911	4,18,88	1,07,705	9,44,701	1,17,564	191,000	379,533

\* In full audit figures up to 1st August 1893

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED

				Rs	A	P.
Approximate earnings for the week ending 23rd September 1893	...	...	...	13,067	0	0
Corresponding period of 1892	...	...	...	10,151	0	0
Decrease	...	...	...	3,387	0	0
Receipts per mile for the week ending 23rd September 1893	...	...	...	256	3	5
Corresponding period of 1892	...	...	...	322	10	0
Decrease	...	...	...	66	6	7
Receipts from 1st July to 23rd September 1893	...	...	...	1,31,893	0	0
Corresponding period of 1892	...	...	...	1,33,419	0	0
Decrease	...	...	...	1,586	0	0





# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, OCTOBER 18, 1893.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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### PRELIMINARY FORECAST OF WINTER RICE CROPS IN BENGAL UP TO THE 15TH SEPTEMBER 1893.

The following is published for general information.

REVENUE DEPT., M. FINUCANE,  
The 10th October, 1893. Offg. Secy. to the Govt. of Bengal.

### DEPARTMENT OF LAND RECORDS AND AGRICULTURE, BENGAL.

#### *Summary of the District Returns of the First Forecast of the Winter Rice Crop in Bengal, 1893 (to the 15th September).*

A B—The district returns appended to this summary include a forecast of the winter rice crop in Angul and the Khondmals.

1. *Character of the season.*—The present season has been characterised by abnormally heavy rainfall in every part of these provinces, and by destructive floods in East Bengal and parts of North Bihar. The frequent and abundant showers which fell during the spring months, namely, from January to April, were generally favourable to the preliminary operations of cultivation. The rainfall during May, June, and July proved to be exceedingly heavy, and was favourable on the whole to the transplanting operations, except in very lowlying areas, such as Ulubaria in district Hooghly, Diamond Harbour, in the 24-Parganas, Kushtia, and Meherpur in district Nadia and the Sadar and Jhenida

sub-divisions of district Jessore, which were submerged. Plentiful, though not excessive, rain also fell during August and the first-half of September, and favoured the progress of the operations. During August, however, all the districts of the Dacca Division and Tippera in East Bengal, and parts of Muzaffarpur, Darbhanga, Champaran, and Bhagalpur in North Bihar were visited by sudden and severe floods, which either killed or considerably damaged the standing crop, and also interfered with transplanting of seedlings in many places. On the whole the season has been favourable to the winter rice crop in spite of its excessively wet character. Except in those limited areas where the crop could not be sown or transplanted owing to excessive accumulation of water, or was subsequently damaged by floods, the heavy rainfall of the season has been more beneficial than otherwise.

2. *Area cultivated.*—The total area estimated to have been cultivated with winter rice in the current year is 30,441,364 acres against 29,160,111 acres in 1892, and thus shows an increase of 4·2 per cent. over the area sown last year. The only districts and sub-divisions which show a falling off in area, amounting to 10 per cent. and upwards, are the Tamruk sub-division of Midnapore (14 per cent.), the Howrah (20 per cent.) and Ulubaria (17 per cent.), sub-divisions of Hooghly, 24-Parganas (15 per cent.), Nadia (17 per cent.), Mymensingh (13 per cent.), Darbhanga (11 per cent.), the Jajpur sub-division of Cuttack (13 per cent.), and Palamau (10 per cent.).

3. *Character of the crop.*—It will be seen on reference to the district returns that out of the 46 districts, 16 report a full average (16 annas), or more than a full average crop;\* 19 report crops varying in character from 12 to 16 annas;† 10 from 8 to 12 annas;‡ and only one district, namely Backergunge, has reported an 8-anna crop. Besides the district last mentioned, several sub-divisions have reported an 8-anna or less than an 8-anna crop. These are the Ulubaria sub-division of Hooghly (8), the Diamond Harbour sub-division of the 24-Parganas (8), the Kustia (3) and Meherpur (8) sub-divisions of Nadia the Sadar (8) and Jhenida (6) sub-divisions of Jessore, the Madaripur sub-division of Faridpur (6), the Sadar and Bhola sub-divisions of Backergunge (6), Brahmanberia in Tippera (8), Samastipur in Darahanga (8), and the Sadar sub-division of Muzaffarpur (8). The prospects of the standing crop are on the whole evidently better than those of the crop of 1892, which was estimated at not less than 14 annas. Twenty-seven out of the 46 districts have reported the standing crop to be better than that of last year; six have reported equal crops to those of last year; and only thirteen have reported worse crops. The estimated outturn of the present year's crop may be safely assumed to be very nearly an average crop. The actual outturn of the crop will, however, depend, to a certain extent, on the occurrence or otherwise of sufficient rainfall during October.

\* Burdwan (16), Bankura (16), Birbhum (18), Murshidabad (16), Dinajpur (18), Rajshahi (16), Rangpur (16), Bogra (16), Pabna (17), Gaya (17), Champaran (16), Bhagalpur (15), Malda (16), Sonthal Parganas (17), Hazaribagh (16), Palamau (16).

† Midnapore (14), Hooghly (14), 24-Parganas (11), Khulna (12), Darjeeling (15), Jalpaiguri (13), Dacca (12), Chittagong (14), Patna (14), Shahabad (13), Saran (14), Monghyr (13), Purnea (14), Cuttack (13), Balasore (12), Angul (12), Puri (13), Lohardaga (14), Singhbhum (15).

‡ Nadia (9), Jessore (9), Faridpur (9), Mymensingh (11), Tippera (9), Noakhali (10), Chittagong Hill Tracts (10), Darbhanga (11), Muzaffarpur (11), Manbhum (11).

R. NATHAN,  
for Director of Land Records and  
Agriculture, Bengal.

CALCUTTA,  
The 4th October 1893.

Preliminary Forecast of Winter Rice Crop up to the 15th September 1893.

1	2	3	4	5	6	7	8	9	10	11
DISTRICT	Sub-division.	Total area of sub-division in acres	Total area estimated to be under cultivation in acres	Approximate normal area under winter rice in acres	Approximate area under last year's winter rice in acres.	Portion of area under this year's winter rice in acres.	Taking 16 annas to represent the average outturn how many annas will represent this year's outturn?	Taking 16 annas to represent the average outturn how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Agricultural Department, Bengal.
Burdwan	Sadar "	794,980	635,500	424,300	254,000	424,300	Annas. 7	Annas. 16	Owing to sufficient rainfall this year all cultivable lands have been cultivated, and unless there be a failure of autumn rains, there will be a very good outturn. The estimate has been based on the supposition that favourable conditions will continue.	
	Kalna "	276,840	221,000	128,000	128,000	128,000	11	16		
	Katwa "	285,280	180,600	140,800	123,500	140,800	12	16		
	Rangpur "	429,440	254,760	225,300	165,900	225,300	8	16		
	District Total	1,726,050	1,291,860	918,400	671,400	918,400	9	16		
Ranpura	Sadar "	1,270,440	498,900	324,400	263,500	324,400	9	16	The early and timely rainfall has been very favourable and accounts for the increase in area shown in column 7.	
	Vidharpur "	448,000	214,000	154,800	148,000	154,800	6	16		
	District Total	1,677,440	642,800	559,400	511,500	559,400	8	16		
Birbhum	Sadar "	708,120	290,000	176,000	176,000	176,000	16	16	All available land is under crop. Up to the stage of transplantation, the agricultural operations are the same. The low lands which are sown with winter rice have had plenty water, and the prospects are good.	
	Rampurhat "	412,160	169,000	103,000	103,000	103,000	16	16		
	District Total	1,121,280	459,000	279,000	279,000	279,000	16	16		
Midnapur	Sadar "	2,051,280	1,029,100	800,900	539,400	800,900	8	12	The outturn is likely to be better this year as there has been sufficient rain, and for the same reason a larger quantity of land has been brought under cultivation for winter rice. Tamuk is the only subdivision where the area of land submerged, and for the time unit for cultivation, is at all considerable, although in Ghatal also a small portion is so.	
	Tamuk "	373,120	279,000	244,300	226,800	244,300	10	14		
	Contai "	653,640	455,300	416,000	398,250	416,000	8	14		
	Ghatal "	234,240	146,500	131,800	101,750	131,800	8	14		
	District Total	3,252,480	2,111,500	1,652,000	1,266,300	1,652,000	8	14		

1	2	3	4	5	6	7	8	9	10	11
DISTRICT.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Approximate normal area under winter rice in acres.	Approximate area under last year's winter rice in acres.	Estimated area under this year's winter rice in acres.	Taking 16 annas to represent the average output, how many annas will represent this year's output?	Taking 16 annas to represent the average output, how many annas will represent this year's output?	Remarks by the District Officers.	Remarks by the Agricultural Department, Bengal.
Hooghly.	Sadar	282,880	175,800	141,440	55,040	141,440	10	20 (a)	(c) The increase in the area under cultivation is due to the sufficient rainfall this year. The Sadar sub-division expects a bumper crop this year, and this is more than justified by the rain we have had these two or three days.	
	Serampur	219,520	180,000	100,400	68,957	59,384	12	10 (b)	(d) There was general rain throughout the sub-division. Though the fall was rather too heavy in some parts, the transplantation proceeded on rapidly, except in the low lying tracts, owing to the accumulation of water. The prospect would be favourable if seasonable rainfall comes.	
	Jahanabad	980,380	167,680	83,840	60,094	79,538	10	14 (c)	(c) Sufficient rain has fallen, and prospects are good.	
	Howrah	108,440	69,760	60,600	44,860	55,380	12	12 (d)	(d) The decrease in area is due to the rice fields being submerged till now. The output is expected to be 13 annas if nothing unforeseen happens.	
	Uluberis	163,920	128,000	105,800	74,000	61,200	8	8 (e)	(e) As there was heavy rainfall during the time of ploughing and sowing, less cultivated area has been shown. The prospects are reported to be very poor, but as the crop is really a speculative one, this was not unexpected.	
	District Total	1,680,080	702,840	495,360	298,287	397,947	10½	14		
24 Parganas.	Sadar	600,576	462,700	395,040	868,800	231,100	13	11	The decrease in the area under winter rice crop this year is due to the fact that the low lands, which were submerged in consequence	
	Barasat	515,000	180,400	147,200	119,400	108,400	12	12		
	Basirhat	380,200	281,600	213,100	213,100	202,800	13	16		



Diamond Harbour		298,250	2-0,000	255,400	255,400	244,100	15	9		
District Total		1,671,626	1,265,600	1,257,700	921,700	784,400	13	111		
Kulna	Sadar	1,606,339	204,400	228,000	152,000	192,000	12	12		
	Saikhura	814,043	20,500	23,400	152,000	192,000	10	12		
	Bagerhat	165,325	277,100	214,100	152,000	192,000	14	14		
	Area of boundary, Khals, rivers of the Sundarbans in this district.	317,480	...	...	...	...	...	...		
	District Total	3,103,942	577,000	675,100	576,000	532,000	12	123		
Nadia	Sadar	497,930	322,800	65,500	42,000	34,000	7	10		
	Kushia	382,000	278,400	24,000	25,000	21,000	10	8		
	Meherpur	634,880	43,000	24,400	20,000	18,000	8	15		
	Banaghat	273,250	190,200	12,500	10,000	10,000	9	...		
	District Total	1,788,100	1,905,000	130,400	100,000	85,000	54	9		
Jessore	Sadar	708,100	204,000	12,100	121,100	160,000	15	5		
	dhondu	504,000	23,800	54,000	54,000	64,000	12	6		
	Nagra	272,000	171,500	51,000	89,000	65,000	15	12		
	Narail	311,800	157,500	128,000	128,000	128,000	16	10		
	Bangorn	415,300	248,200	150,000	60,000	58,000	6	...		
	District Total	1,872,000	1,116,800	575,000	501,600	475,000	13	9		

of the heavy rains in June 1923, could not be brought under cultivation. The outturn is expected to be worse than the normal.

The 1/2 lands which are submerged with water could not be brought under cultivation, and hence the decrease in the estimated area under winter rice this year.

Timely rain has made the prospect somewhat better at Saikhura. Had not the rain been excessive, the outturn would have been expected to be better.

The areas under columns 4 and 5 were revised and changed to those shown at present.

The early and excessive rains prevented the preparation of much of land usually cultivated with winter rice in the Sadar, Kushia, and Meherpur sub-divisions. Hence the decrease in the area sown this year. The outturn is at present estimated to be 'annas', but nothing can be said positively on this point now, as the result will mainly depend on the rainfall of September and October. The rainfall has been much heavier in the north than in the south of this district.

The Collector should in his final forecast give further explanation regarding the figures in column 9 for the Kushia sub-division. The estimate appears too low in comparison with neighbouring sub-divisions. The effect of the early and excessive rains is allowed for in column 7.

The Collector should in his final forecast reconcile the estimates in columns 6, 7 and 8 for the Bangorn sub-division. It is not explained why the areas sown should be so much below the normal, nor why, with a more favourable season, the area under cultivation this year should be less than last year's estimate.

Sadar shows decrease in area as compared with normal, Meherpur and Bangorn a so slight increase compared with normal and last year's. The decrease in all the cases is due to excessive rainfall at the sowing season.

In the Bangorn sub-division, where the lands are higher than those of the other sub-divisions, the outturn will be better than that of the last year in which the crop suffered from short rain. In this sub-division the crop has suffered less from the rainfall of June last. In the other sub-divisions the outturn will be worse than last year's owing to the injury done to the young plants by the heavy rainfall. In all the sub-divisions the outturn will fall below normal in consequence of the heavy rainfall.

1	2	3	4	5	6	7	8	9	10	11
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Approximate normal area under winter rice in acres.	Approximate area under last year's winter rice in acres.	Estimated area under this year's winter rice in acres.	Taking 16 annas to represent the average outturn, how many annas represented outturn last year?	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Agricultural Department, Bengal.
Murshidabad.	Sadar ..	586,240	305,136	82,018	88,048	82,250	10	14	The increase in the outturn as well as in area shown in comparison to that of the last year is due to the sufficient and timely rainfall.	
	Kandi ..	468,780	273,795	138,516	188,100	182,510	10	15		
	Jangipur ..	383,169	510,517	40,520	40,290	42,340	4	16		
	District Total ..	1,372,169	985,548	312,275	316,458	314,160	9	16		
Dinsipur ..	Sadar ..	9,082,000	1,577,600	1,020,400	1,090,400	1,090,400	20	20	Heavy rainfall at the time of sowing prevented the cultivators from cultivating lands; hence the decrease in the area sown this year as compared with the normal area and the area sown last year. On an average, however, 16 annas outturn is expected.	
	Thakurgaon ..	854,880	897,400	218,100	218,100	215,100	18	16		
	District Total ..	2,831,880	1,745,000	1,308,500	1,308,500	1,305,500	18	15		
	Sadar ..	631,152.4	386,700	189,554	189,570	189,300	18	18		
Bojpathi ..	Wata ..	595,880	462,100	240,353	241,720	190,717	18	14	But for the continued and incessant rainfall during June and July last, and the first half of August, which retarded the ripening of the crops, there would have been a bumper crop. There is an increase of 600 acres in area under this year's winter crop reported by the Sub-divisional Officer of Nilphamari, which is attributed to cultivators having taken advantage of favourable weather.	
	Nadgaon ..	585,920	297,100	254,358	254,970	220,000	20	16		
	District total ..	1,539,952.4	1,065,900	673,900	674,900	609,017	18	16		
	Sadar ..	730,240	456,800	365,150	365,100	365,100	16	16		
Raipur ..	Kurigram ..	590,080	468,000	234,300	234,300	231,300	10	10		
	Gaibanda ..	466,400	371,200	251,600	251,600	251,600	15	15		
	Nilphamari ..	414,720	276,800	92,900	104,400	105,000	14	14		
	District Total ..	2,231,040	1,602,700	674,000	685,000	666,900	15	15		

[illegible]

1	2	3	4	5	6	7	8	9	10	11
ZIRIST.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Approximate normal area under winter rice in acres.	Approximate area under last year's winter rice in acres.	Estimated area under this year's winter rice in acres.	Taking 10 annas to represent the average outturn, how many annas represented outturn last year?	Taking 10 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officer.	Remarks by the Agricultural Department, Bengal.
Faridpur.	Sadar	550,400	385,300	220,000	240,000	216,700	Annas. 14	Annas. 10	<p>Owing to early excessive rain the low-lying tracts were submerged and could not be brought under cultivation; hence the decrease in column 7 as compared with last year.</p> <p>The young crop has again been damaged by the high flood to an extent which cannot now be approximately estimated.</p> <p>Excessive rain and high flood have damaged the aman crop to a great extent. In most parts of Kasalpara and some parts of Gopalgange and Madaripur, the crop will not exceed one to two annas.</p> <p>The crop has been affected owing to excessive rain.</p>	<p>The Collector should state in his final forecast whether the excessive rainfall early in the season did not prevent the whole normal area from being sown as in neighbouring districts.</p>
	Madaripur...	620,600	416,500	290,000	320,000	320,000	12	6		
	Goalundo ...	273,620	205,400	137,000	137,000	137,000	16	10		
	District Total	1,450,890	1,007,200	747,000	697,000	673,700	14	9		
	Sadar	711,040	416,700	250,000	270,000	270,000	14	6		
Backergunge.	Patuakhali	757,540	820,200	241,000	234,000	241,000	15	10	<p>The excessive rainfall during the sowing season and the rise of waters have affected the crops very seriously and hence the bad outturn. Over large tracts the seedlings have been destroyed three times in succession.</p>	<p>The Collector should state in his final forecast whether the excessive rainfall early in the season did not prevent the whole normal area from being sown as in neighbouring districts.</p>
	Barisal	442,880	320,000	211,000	220,000	220,000	16	10		
	Buola	393,000	250,100	160,000	160,000	160,000	12	6		
Mymensingh.	District Total	2,353,860	1,843,200	870,000	876,000	876,000	14	9	<p>The poor outturn is attributed to high floods and heavy rains.</p> <p>The unusually high flood during the last July restricted the transplantation of aman seedling, hence the area under winter rice crop has been shown to be much less than the previous year. The outturn is also expected to be 10 annas only owing to the similar reason.</p>	
	Sadar	1,153,330	630,000	250,000	207,000	207,000	14	10		
	Netrokona	400,920	344,200	250,000	250,000	150,000	14	10		

		476,160	226,000	1,152,000	113,000	118,000	16	10	
Kivragan									
	Jamalpur	817,752	657,250	394,000	263,200	191,500	16	13	Owing to heavy rains and high floods the area cultivated this year up to this time has been smaller than the normal area under winter crop. As the water did not subside in proper time, the cultivated area has been smaller than last year's, the increased rains and early rise of water caused damage to the crop, so the outturn is not expected to be better than last year's.
	Tangul	625,248	533,013	295,000	265,000	205,000	16	14	The decrease both in area and expected outturn is attributed to the high floods and heavy rainfall.
	District Total	4,052,480	2,452,683	1,106,440	687,500	801,800	15	11	The early and rapid subsidence of the flood accompanied by high winds injured the crop to a certain extent.
Tippers	Sadar	770,880	547,800	383,000	383,800	383,800	16	9	39. The abnormal high flood in July and August submerged and destroyed the crop.
	Brahmanbaria	422,100	353,300	9,900	227,000	240,000	16	8	
	Chandpur	371,300	295,000	192,000	185,000	185,000	17	19	
	District Total	1,564,280	1,197,300	605,000	804,800	808,800	16	9	
Noakhala	Sadar	580,720	640,000	426,250	400,000	460,000	16	10	Owing to excessive rainfall during the time of sowing and transplantation, the outturn is estimated to be less than last year's outturn.
	Penny	210,520	(a) 175,800	137,500	138,250	137,800	16	(b) 11	
	District Total	1,080,240	815,800	664,100	538,250	597,800	16	10	(a) About 400 acres of arable land, having been acquired by the Railway Company for Assam-Bengal Railway line, the area shown in column 6 has been reduced accordingly. (b) Owing to excessive rainfall during sowing and transplanting time, the year's outturn has been estimated to be 11 annas.
Chittagong	Sadar	1,043,200	801,200	244,000	244,300	244,400	14	12	The rains have been unusually heavy, but will not, it is to be feared, affect the growth of the crop seriously.
	Cox's Bazar	220,680	404,017	357,240	355,240	352,240	16	10	The prospects here are better as the rainfall was not so heavy as in the Sadar.
	District Total	1,042,880	795,215	600,740	599,540	596,640	15	11	
Chittagong Hill Tracts	Sadar	2,553,440	Albeit 34,400 under jum cultivation and 10,200 under petch cultivation.	5,120	2,520	2,320	11	11	The decrease in area shown this year is due to emigration of some plough cultivators.
	Belmang's circle	1,174,720		2,500	1,020	1,820	10	10	Heavy rain and flood account for the smallness of the outturn estimated.
	District Total	3,468,160	44,800	7,620	5,440	5,140	10	10	

1	2	3	4	5	6	7	8	9	10	11
District.	Sub-division.	Total area of sub-division in acri.	Total area estimated to be under cultivation in acri.	Approximate normal area under winter rice in acri.	Approximate area under last year's winter rice in acri.	Estimated area under this year's winter rice in acri.	Taking 10 annas to represent the average outturn, how many annas represented outturn last year?	Taking 10 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Agricultural Department, Bengal.
Patna	Sadar	894,880	803,270	567,506	109,600	109,600	Anas. 14 14 16 14	Anas. 14 14 16 14	The rainfall this year was more favourable than last year. The police states that on account of excess at the commencement of the monsoon period, the area sown in the Sadar sub-division is less than last year, but I see no reason for thinking that the area is really smaller. A better outturn than last year is expected throughout the district. With a little more rain, the prospects may be still more favourable than noted in column 9.	Remarks by the District Officers.
	Bah	556,646								
	Bar	87,320								
	Dinapore	91,320								
	District Total	1,830,560	993,500	267,500	440,400	443,400	12	14		
Gaya	Sadar	1,176,960	917,900	406,000	460,000	500,000	12	19	The rainfall has been favourable throughout except for a rather prolonged break in August, which affected Arrahabad most. The area transplanted is somewhat above the normal, and if the rain continue favourable till the <i>harvest</i> , a crop considerably above the average may be expected. Heavy rainfall of August and September with spells of sunshine has been all that could be desired for the prospect of crops.	
	Nawada	653,800	489,800	293,700	380,900	370,000	15	17		
	Jahangabad	388,450	321,900	208,000	298,000	310,000	14	18		
	Aurangabad	797,440	475,100	215,000	179,300	218,000	11	16		
	District Total	3,015,650	2,207,500	1,255,700	1,244,000	1,508,000	13	17		
Shahabad	Arrah	553,000	487,400	373,200	222,800	100,000	8	12	Collectors should explain in his final forecast why, with a favourable season, the area cultivated in the Arrah sub-division is so much below the normal. Perhaps the figure in column 9 is a maximum and not a normal.	
	Buxar	413,640	217,851	126,615	126,615	125,000	8	12		
	Sasaram	863,370	382,540	242,330	240,672	393,840	11	16		
	Bhainsa	832,640	634,640	312,330	200,000	227,700	8	11		
	District Total	2,702,650	1,712,431	1,054,477	790,000	520,740	9	13		



1	2	3	4	5	6	7	8	9	10	11
DISTRICT.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Approximate normal area under winter rice in acres.	Approximate area under last year's winter rice in acres.	Estimated area under this year's winter rice in acres.	Taking 16 annas to represent the average outturn, how many annas represented outturn last year.	Taking 16 annas to represent this year's outturn, how many annas will represent outturn?	Remarks by the District Officers.	Remarks by the Agricultural Department, Bengal.
Purnea	Sadar	1,648,090	790,000	990,000	992,000	992,000	Annas. 14	Annas. 14	The decrease in area sown this year is due to some lands not having been sown in the Kishanganj sub-division for want of rainfall in August sufficient for transplantation. The deficiency in the outturn is to be attributed to the damage done to this crop in the low lands all over the district by the floods. The figures in column 4 have been revised.	
	Kishanganj	837,600	590,000	832,000	267,000	242,000	14	16		
	Araia	62,100	410,000	550,000	32,000	322,000	15	16		
	District Total	3,171,840	1,790,000	982,000	867,000	844,000	15	14		
Malda	Whole district	1,216,040	811,500	273,219	294,173	277,564	14	16	The rainfall was favourable all along, which helped ploughing and transplantation, and all lands available for cultivation were sown with winter rice; hence the increase in area. The state of the crop up to date is favourable. If it rains in October an average outturn is expected.	
Benthal Parganas	Dumka	914,560	422,200	181,800	181,800	151,800	14	15	The areas shown in columns 5 and 6 do not tally with those given in the last year's forecast of winter rice owing to the revised figures being furnished by the Sub-divisional Officer of Godda. The increase in the area sown this year, and that in the outturn, are due to ample rainfall during transplantation.	
	Deochur	610,560	165,120	69,120	64,560	69,120	14	14		
	Godda	618,560	432,920	74,360	71,000	73,000	12	10		
	Jamfara	445,440	124,500	61,000	60,000	64,000	14	14		
	Pakour	437,120	387,040	282,400	229,260	282,400	14	14		
	Rajmahal	673,000	355,200	215,840	240,000	245,000	6	16		
	District Total	3,560,160	1,827,260	886,492	840,120	803,321	124	17		
Cuttack	Sadar	632,960	303,120	580,424	244,200	339,455	10	14	(Figures for columns 4 and 5 were revised; hence there is difference between this and the last year's forecast).	
	Jajpur	746,560	320,700	254,000	288,000	250,000	13	13		
	Kendrapara	911,900	410,240	327,960	315,700	300,000	11	10		



Banki ...	75,980	37,290	23,040	23,000	23,040	12	13	10
District Total ...	2,325,910	1,161,298	1,028,148	573,840	912,455	12	13	
Balasore ...								
Sadar ...	741,120	448,000	446,090	386,700	357,200	11	12	
Bhadrak ...	681,264	389,100	300,800	300,600	300,800	13	12	
District Total ...	1,322,404	837,100	710,400	687,300	658,000	12	12	
Angul and Khond Mals.								
Angul ...	585,900	128,400	59,600	59,600	59,000	13	12	
Puri ...								
Sadar ...	970,900	400,800	324,840	320,000	290,000	9	12	
Khurda ...	653,728	207,300	161,100	161,000	161,100	14	13	
District Total ...	1,612,928	728,100	684,940	481,100	481,100	11	13	

Except in the Sadar sub-division and Banki, the area under cultivation of the winter rice is less than that of the last year, due to the unusually heavy rainfall in May last which caused a great part of the cultivable area to be under water. In the Sadar sub-division also the area is much less than the approximate normal area owing to the above cause.

In Banki a good crop is expected this year, as the rainfall has been adequate till now. But the untimely and excessive rainfall and floods at the time of sowing and germinating, and the scanty rainfall in the other parts of the district at the time of reploughing and transplantation has told upon the crop, and the average outturn is not expected to be more than 12 annas, which is, however, better than that of the last year, when the unusually high flood destroyed the crop.

The decrease in area in Sadar is due to excessive rain at the time of sowing crops, and the increase of outturn by one anna is due to sufficient rain later on.

The decrease in outturn by one anna in Bhadrak is due to excessive rain.

This year has been generally favourable to the growth of the bhadoi crops, and the full normal area has been utilized. Last year a part of this area was left out for want of seasonable rain and other causes due to irregular rainfall. The outturn of the crops this year is estimated at not less than 12 annas against 6 or 8 annas of last year.

The increase in column 4 is owing to new land being brought under cultivation in Khurda. Last year the rainfall was deficient and in some parts of the district the crop was damaged by heavy flood. This year the rainfall is sufficient and more regular. If everything goes on well a 12-anna crop may be expected, but it is too early yet to make an estimate.

1	2	3	4	5	6	7	8	9	10	11
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Approximate normal area under winter rice in acres.	Approximate area under last year's winter rice in acres.	Estimated area under this year's winter rice in acres.	Taking 16 annas to represent the average outturn, how many annas represented outturn last year.	Taking 16 annas to represent many annas will represent this year's outturn?	Remarks by the District Officer.	Remarks by the Agricultural Department, Bengal.
Hazaribagh	Sadar	2,928,000	1,629,300	665,986	665,986	665,986	Annas. 14 1/2	Annas. 16	Rains being plenty, a full 16-anna crop is expected.	
	Girdih	1,043,440	619,300	448,640	448,640	448,640	15 1/2	16		
	District Total	4,453,440	2,478,500	1,114,626	1,114,626	1,114,626	15	16		
Ichardaga	Whole district	4,563,920	2,588,900	1,491,500	1,491,500	1,491,500	14	14	No noticeable change could be found in the outturn of this year as compared with that of the last year.	
	Whole district	5,130,900	768,000	320,000	298,000	261,000	16	16		
Manbhum	Sadar	2,140,160	764,194	354,286	354,286	354,286	9	12	Heavy rain during the sowing time was favourable, and the prospect of crop so far was good, but heavy rains in September have been injurious to rice crop, which has lately been attacked by blight.	
	Gobindpur	613,920	171,306	114,304	114,304	114,304	8	10		
	District Total	2,654,080	935,500	468,590	468,590	468,590	8 1/2	11		
Singbhum	Whole district	2,454,720	1,162,073	693,702	230,555*	698,693	12	15	The increase in area cultivated is no doubt due to the favourable rainfall this year. (a) Estimated by this Department.	
	Total for all Bengal	85,603,800*	56,370,105	29,180,111	29,211,211	30,441,364	(a) 14	about 16(a)		

The Deputy Commissioner should explain in final forecast why with a favourable season the area under cultivation is less than that shown in last year's estimate.

\* This figure is very improbable. Last year the area sown was estimated at 478,136 acres, which was a little short of the normal area as then estimated. The Deputy Commissioner will please reconcile the estimate now furnished with those given last year in the return of the Final Winter Rice Report due in November next.

## Statement of Rainfall from May to 16th September 1893.

Division.	District.	MAY.		JUNE.		JULY.		AUGUST.		UP TO 16TH SEPTEMBER 1893.	
		Normal average.	Actual rainfall.	Normal average.	Actual rainfall.	Normal average.	Actual rainfall.	Normal average.	Actual rainfall.	Normal average.	Actual rainfall.
BURDWAN.	Burdwan	5.01	16.85	9.23	13.90	11.80	12.73	12.86	5.40	4.84	5.30
	Bankura	4.05	13.57	9.56	10.88	13.12	10.46	13.74	9.41	5.19	7.83
	Hisham	3.40	7.54	9.10	13.16	12.45	10.06	13.07	6.47	0.81	0.01
	Midnapore	5.05	13.92	9.50	18.96	13.26	8.13	13.25	8.55	5.20	11.02
	Howrah	5.34	12.03	9.75	18.95	12.71	10.08	14.21	7.68	4.77	8.46
PRESE. DEWC.	Howrah	5.81	14.36	9.45	21.76	13.13	9.09	14.28	6.01	5.25	10.39
	24 Parganas	5.79	13.07	9.63	20.95	12.97	10.87	13.72	6.13	5.89	7.09
	Khulna	6.61	14.15	12.44	20.04	13.45	13.51	12.46	12.07	5.85	7.09
	Nadia	6.35	10.82	9.02	20.95	10.48	11.44	12.19	7.33	5.11	4.40
	Jessore	7.01	13.73	12.10	15.06	10.55	8.15	11.54	8.15	5.04	.....
RAJSHAH.	Murshidabad	5.21	7.76	9.05	21.07	11.00	13.65	11.79	9.33	0.28	.....
	Dinajpur	6.45	7.01	13.25	16.57	12.14	19.05	11.87	9.80	7.47	4.87
	Rajshahi	0.09	11.41	10.26	18.05	11.82	11.41	11.48	10.23	6.07	4.15
	Rangpur	11.24	5.08	21.49	26.32	13.80	20.50	12.35	11.79	7.41	3.89
	Rogra	7.91	12.73	13.11	16.10	13.69	14.23	11.81	12.61	5.74	2.54
DACC.	Fabna	7.11	10.14	11.32	17.97	10.83	17.08	11.98	11.60	6.42	4.13
	Darjeeling	8.68	3.81	24.02	27.33	20.07	23.06	23.40	26.08	10.92	8.73
	Jaypurguri	11.06	6.86	20.12	15.33	23.66	38.36	24.94	26.77	13.63	10.01
	Dacca	8.70	13.52	12.91	16.94	13.84	9.61	12.38	12.18	0.53	4.43
	Faridpur	8.80	16.25	19.41	20.96	12.49	9.18	12.08	10.02	5.52	.....
CHIT. TAGONG.	Backergunge	7.80	20.39	18.66	25.40	18.78	16.07	16.14	11.85	6.76	7.44
	Mymensingh	9.94	13.34	17.43	21.05	13.55	25.12	14.07	16.68	7.19	2.87
	Tippera	10.21	17.73	17.31	18.75	15.27	17.59	16.37	16.33	6.89	4.46
	Nonkhali	10.05	13.24	24.18	32.44	21.82	24.10	23.49	25.11	10.32	0.73
	Chittagong Hill Tracts.	6.54	29.01	26.22	47.84	28.52	17.98	23.48	23.04	9.20	4.98
PATNA.	Chittagong Hill Tracts.	.....	.....	.....	.....	.....	.....	.....	.....	7.32	8.59
	Patna	2.18	2.64	5.95	11.85	12.12	13.28	10.58	7.86	4.26	.....
	Gaya	1.74	2.80	5.82	7.84	11.83	14.59	11.71	0.93	4.34	6.08
	Shahabad	1.90	2.39	6.30	7.97	11.47	14.61	11.40	8.31	4.53	.....
	Darbhanga	2.08	3.67	8.00	5.87	11.06	16.86	10.71	10.54	5.64	2.82
BRABUL. PUR.	Muzaffarpur	2.61	3.06	7.08	7.76	11.26	15.80	10.11	8.02	4.97	.....
	Saran	1.98	2.00	6.30	6.24	11.41	11.90	10.21	8.79	4.46	.....
	Champanan	2.00	2.00	8.31	8.86	12.12	25.81	12.16	10.17	4.77	.....
	Monghyr	2.34	2.73	6.38	10.55	11.89	13.77	11.21	10.10	5.22	4.08
	Rhagnapur	3.19	3.74	8.42	8.79	11.26	17.04	11.55	7.40	5.86	7.06
ORISSA.	Purnea	5.60	1.40	12.98	14.83	15.47	27.33	14.03	13.16	0.37	6.67
	Malda	4.60	5.99	10.40	18.66	11.50	15.46	12.03	7.87	7.47	4.53
	Sonthal Parganas	3.75	8.01	6.29	16.29	19.07	15.13	12.79	10.00	0.37	5.28
	Cuttack	3.06	32.08	9.12	7.43	12.20	7.41	12.20	6.85	5.15	.....
	Balasore	4.95	24.76	8.25	11.58	12.20	8.02	11.77	10.08	5.81	.....
CHOTA. NAGPUR.	Angul and Khondmala.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Puri	2.76	17.57	7.98	3.56	10.05	6.85	11.46	13.39	6.18	.....
	Hazaribagh	2.86	5.71	7.90	16.46	13.40	18.83	13.07	9.36	5.43	.....
	Lohardaga	2.55	1.03	8.44	10.46	12.94	7.91	14.70	10.42	6.31	.....
	Palamu	1.41	0.80	6.04	10.85	12.56	13.24	11.53	8.41	5.30	.....
SINGHBHUM.	Manbhum	3.25	8.11	8.43	20.58	11.53	14.70	13.77	10.33	4.05	9.11
	Singbhum	4.17	9.38	8.01	14.65	14.27	8.20	13.83	10.66	5.09	7.32

RESOLUTION ON THE ANNUAL GENERAL ADMINISTRATION  
REPORT FOR THE RAJSHAHI DIVISION FOR 1892-93.

GENERAL DEPARTMENT—MISCELLANEOUS No. 2364.

*Darjeeling, the 16th October 1893.*

RESOLUTION.

READ—

The Annual General Administration Report for the Rajshahi Division for 1892-93.

Read also

The Annual General Administration Report for 1891-92, and Resolution of Government thereon.

This report is submitted by Mr. Nolan, who was in charge of the Division throughout the year.

Mr. Nolan spent 138 days on tour, during which he inspected all the sadar stations and all the sub-divisions of the Division but one, which, however, was inspected during the first week of April. He made an interesting tour through Sikkim, examined the important settlements in progress in Kalimpong and Jalpaiguri, introduced a prompter system of dealing with complaints of misconduct against police officers in Dinajpur, and secured some improvements in police administration and in the details of collectorate business in Rampur Boalia. All the Collectors and Sub-divisional Officers of the Division appear to have complied with the orders of Government in respect to the duration and nature of their tours, except Mr. Mackenzie, Sub-divisional Officer of Alipore in Jalpaiguri, whose touring, owing to bad health, fell short by 19 days of the prescribed standard, and Mr. Rebello, in whose case the deficiency, amounting to only two days, is not explained. The Commissioner remarks that the Collectors, while themselves doing excellent work in camp, do not take sufficient pains to direct their subordinates in this matter, and the Officiating Lieutenant-Governor agrees with him in thinking that, when District Officers receive Sub-divisional Officers' programmes, they should consider with care whether they are the best that can be devised, and if not they should alter them. The Commissioner and all the District Officers observed the standing orders of Government regarding the inspection of district and sub-treasuries, except the Deputy Commissioner of Darjeeling, who, owing to indifferent health, was unable to visit the Siliguri sub-treasury during the rains. Though the inspections were generally thorough, no irregularities were brought to light by them.

2. The rainfall, except in parts of the Rajshahi district, was everywhere sufficient and well distributed, and crops were generally above the average. The Commissioner

points out that owing to the system of crop reporting proscribed by the Government of India, under which an average crop is represented as a 16-anna one, while according to local usage sixteen annas represents a bumper crop, there is some risk of confusion in regard to the outturn of crops given in the official reports. Instances of such confusion are noticed, such as where one Collector in the text of his report says the aman crop was almost a bumper one, and yet records it as a 14-anna crop in the tabular statements annexed. The attention of the Director of the Agricultural Department will be called to the Commissioner's remarks, and he will be requested to consider whether, in case the mufassal reports are made out according to local usage, the results may not in his office be translated into the notation proscribed by the Government of India, or, if not, whether any other remedy can be suggested. But whatever excuse

zamindars and other crop reporters may have for misunderstanding the prescribed nomenclature, Collectors at least should make sure that the tabular returns compiled by themselves are consistent with the statements made in the text of their reports.

Public health. 3. The following statement shows the total number of deaths reported as compared with the preceding year:—

			DEATHS PER MILLE.	
			1892. 1891.	
			1892. 1891.	
Dinajpur ...	...	52,279	58,283	33·6 38·48
Rajshahi ...	...	53,733	51,954	40·91 39·04
Pabna ...	...	36,847	36,061	27·04 26·46
Bogra ...	...	24,018	20,553	29·38 25·14
Rangpur ...	...	68,320	82,110	33·07 39·77
Jalpaiguri ...	...	23,685	28,186	34·76 41·36
Darjeeling ...	...	9,026	7,087	40·41 31·73
Total		267,908	284,234	33·4 35·4

In the Rangpur and Dinajpur districts, the decreased mortality is stated to have been due to abatement of fever and cholera, which had prevailed in the previous year, and in Jalpaiguri it is attributed to better registration.

The registration of deaths appears generally to be more carefully done in this than in some of the other Divisions, the average number of recorded deaths per thousand in the year being 33·4 as compared with 30·46 in the Chittagong district, which is usually regarded as an unhealthy one. The total number of persons vaccinated during the year was 232,998 as compared with 204,847 in 1891-92.

4. As might be expected in a Division in which rice and jute are extensively grown, with good crops, high prices and moderate rents, the cultivators and traders in produce made large profits, but labourers and the extensive class known as *bhadro lok*, who live by service and on small receipts from rent as petty landlords, suffered greatly under pressure of high prices.

The average wage of a common cooly throughout the Division appears to be about four annas a day, which, though fifty per cent. less than that in the Chittagong Division, is nearly double the wage in Bihar, but shows no tendency to rise with the price of food. Though the masses of the people have little to complain of as regards wages, rent, or abundance of produce, they suffer greatly from fevers and other diseases due to unhealthy climate, bad drainage, and the insanitary conditions of village life generally.

There is no emigration from the Division; on the contrary, a large influx takes place annually of labourers coming to the tea gardens from Nepal, and of palki-bearers, workers on roads, reapers, and so forth, who migrate from the western districts, especially from Saran. Some of these immigrants make their permanent homes in this Division.

5. The principal industries classified as manufactures are—tea, silk, indigo and cinchona. The year was an exceptionally bad one for indigo, which is a declining industry in Rajshahi. The outturn of manufactured silk, on the contrary, rose from 44,164lbs. to 79,900lbs.; the number of tea gardens increased from 356 to 367, the gross yield from 25,690,346lbs. in 1891 to 28,860,229lbs. in 1892, and the average yield per acre from 377 to 420lbs.

No mines are worked, but a plot of about 850 acres in the Daling sub-division of the Darjeeling district was demarcated during the year, a coal-mining lease for the area having been applied for by Messrs. Octavius Steel and Company. Two applications for licenses to prospect for coal and limestone in the same sub-division have also been received.

6. Among the most important articles of export, the Commissioner enumerates rice, jute, gunny, tea, tobacco, hides, Trade and commerce. oilseeds, pulses, molasses, ganja, indigo and silk; among imports, piece-goods, salt and kerosine oil; and makes appropriate remarks on each of these articles.

Owing to a partial failure of the rice crop in 1891-92, there was a decrease in the exports of 1892-93. Jute, which as a staple crop of the Division is second only in importance to rice, and as an export now takes precedence of it, yielded an excellent harvest, and the exports of it were the largest on record. The exports of gunny bags from Sirajganj, Jalpaiguri and Darjeeling, and the quantity of tobacco, hides, wheat, pulses and molasses exported increased, while there was a falling off in the exports of oil-seeds owing to the mahajans having had a large stock stored in Calcutta from the previous year.

In Pabna and Rajshahi the imports of piece-goods show a steady increase. No figures are available for Jalpaiguri and Bogra, while in Dinajpur and Darjeeling there was a decrease. The imports of salt also show a large falling off in Dinajpur; in other districts there was an increase, or imports were nearly the same as in the previous year.

The imports and exports of trade with Bhutan show a slight decline. There was an increase in the volume of trade imported from Tibet and Nepal, and in the exports to Tibet and Sikkim, but there was a decrease in the exports to Nepal.

7. The following statement shows the number of cases disposed of by Civil Justice. Munsifs :—

DISTRICT.	Sub-division or (chauki).	Description of Court.	Number of officers.	NUMBER OF ORIGINAL CASES DIS- POSED OF—		DETAILS OF CASES IN COLUMNS 5A AND 5B.			Number of witnesses examined.	Ratio per cent. of witnesses de- tained over two days to total number examined.	Ratio per cent. of cases pending at end of year to total disposed of.
				Ordinary.	Small Cause Court.	Money.	Rent.	Title.			
1	2	3	4	5A	5B	6	7	8	9	10	11
Dinajpur	Sadar	Munsif	1½	2,403	.....	278	1,940	185	2,118	26	8
		Ditto	1	2,240	.....	918	1,225	86	1,312	12	12
		Ditto	1	1,953	738	1,598	1,018	75	3,153	11	4
		Ditto	1	1,386	.....	936	113	37	2,298	7	19
		Ditto	1	1,561	.....	851	610	91	2,161	24	15
Rajshahi	Sadar	Munsif	1½	1,018	912	1,097	722	141	3,991	9	20
		Ditto	1	979	1,278	1,578	596	83	2,786	73	12
		Ditto	1	1,329	.....	1,188	193	48	1,672	18	.....
Pabna	Sadar	Munsif	3	2,399	2,763	3,048	1,820	224	6,197	4	23
		Ditto	1	846	707	1,328	127	98	2,431	11	28
		Ditto	1	893	1,786	2,376	233	170	5,180	9	24
Bogra	Sadar	Munsif	2	2,538	2,582	3,423	1,403	204	6,014	23	13
Rangpur	Sadar	Munsif	2	4,051	.....	580	3,331	140	5,851	19	14
		Ditto	1½	2,968	1,150	2,172	1,857	79	3,699	14	13
		Ditto	2	2,737	2,087	3,944	1,978	202	9,349	6	4
		Ditto	2	3,014	908	2,366	1,599	168	6,604	10	9
Jalpaiguri	Sadar	Munsif	1	1,213	864	1,925	.....	162	2,592	35	17
		Ditto	1	313	.....	807	.....	6	307	10	11
Darjeeling	Sadar	Munsif	1	32	.....	18	.....	14	48	.....	25
		Ditto	1	51	173	224	.....	.....	54	.....	10
		Ditto	1	98	.....	98	.....	2	173	10	13
Total			26½	54,212	16,668	29,440	19,135	2,305	69,104	15	13
Total for 1891-92			26½	20,889	9,912	22,510	14,938	2,353	119,344	22	13

Note.—The fraction means that an officer was employed for the fractional part of the year.

There was a large increase in the number of suits for money and rent. The increase in the latter was due to the accumulation of arrears because of the bad crops of 1891-92, and in the former to the difficulty found in executing contracts for delivery of produce, especially jute, on account of prices having proved much higher than had been expected.

8. The following statements show the number of criminal cases disposed of by Stipendiary and Honorary Magistrates, the number of witnesses examined, and the percentage of them detained for two days:—

*Stipendiary Magistrates.*

DISTRICT.	Subdivision.	Class of officers.	Number of officers.	Cases disposed of.	Persons disposed of.	Ratio per cent. of persons convicted to disposed of.	Number of witnesses examined.	Ratio per cent. of witnesses detained over two days to total number examined.	Ratio per cent. of cases confirmed in appeal to total appealed.	Number of A cases disposed of.	Number remanded six times and more.	Average number of cases disposed of per officer.	Average number of witnesses examined in each case.	Ratio per cent. of column 12 to column 11.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Dinajpur	Sadar	Stipendiary	5½	1,170	1,720	59	4,174	3·4	78	388	0	212	3	2·3
	Thakurgaon	Ditto	1	446	463	68	1,390	.....	90	143	.....	540	3	.....
Rajshahi	Sadar	Stipendiary	5	915	1,222	58	3,910	5	66	320	3	183	4	·9
	Nator	Ditto	3	120*	565	76	2,220	.....	63	132	.....	143	5	.....
	Nauagaon	Ditto	1	368	337	74	58	.....	56	97	.....	308	3	.....
Pabna	Sadar	Stipendiary	4½	837	1,346	50	5,202	9	62	210	4	186	6	1·8
	Sirajganj	Ditto	2	563	1,141	63	5,193	1·3	80	223	3	281	6	1·3
Bogra	Sadar	Stipendiary	5	862	1,362	67	5,334	10	69	367	30	172	7	8·1
Rangpur	Sadar	Stipendiary	5½	767	1,064	63	3,338	2·5	78	193	.....	146	4	.....
	Gabanda	Ditto	1	268	384	60	1,081	.....	87	138	.....	208	5	.....
	Kuriganon	Ditto	1	363	563	55	1,104	2·4	70	137	.....	368	6	.....
	Nilphamari	Ditto	1	421†	604	65	2,686	3·0	81	216	4	420	6	1·8
Jalpaiguri	Sadar	Stipendiary	5	758	1,080	56	2,912	1·1	88	273	6	151	4	2·3
	Alipur	Ditto	2	180	295	54	761	2·3	66	82	1	64	4	1·2
Darjeeling	Sadar	Stipendiary	4½	663	1,306	70	2,797	3·2	65	498	2	228	3	·4
Divisional Total			46½	9,118	13,405	61	46,221	3·1	73	3,340	62	196	4	1·9
Total for 1891-92			434	9,788	14,430	61	56,537	6·8	75	3,768	241	225	6	0·5

\* Including 16 railway cases of Pabna.

† Including 12 railway cases of Dinajpur.

*Honorary Magistrates.*

DISTRICT.	Subdivision.	Class of officers.	Number of officers.	Cases disposed of.	Persons disposed of.	Ratio per cent. of persons convicted to disposed of.	Number of witnesses examined.	Ratio per cent. of witnesses detained over two days to total number examined.	Ratio of cases confirmed in appeal to total appealed.	Number of A cases disposed of.	Number remanded six times and more.	Average number of cases disposed of per officer.	Average number of witnesses examined in each case.	Ratio per cent. of column 12 to column 11.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Dinajpur	Sadar	Honorary	1	200	229	68	131	.....	.....	3	.....	200	1	.....
	Itanagar	Ditto	1	14	16	31	56	.....	.....	.....	.....	14	4	.....
Rajshahi	Sadar	Honorary	1	36	55	80	140	5·3	75	.....	.....	36	4	.....
	Nator	Ditto	2	73	105	81	311	24·7	80	17	.....	36	4	.....
	Nauagaon	Ditto	1	12	12	80	49	.....	.....	.....	.....	12	4	.....
Pabna	Sadar	Honorary	1	258	317	66	873	.....	.....	5	.....	258	3	.....
	Sirajganj	Ditto	1	175	184	53	419	7·4	100	14	.....	175	2	.....
	Sirajganj	Ditto	1	20	23	99	91	.....	.....	.....	.....	20	1	.....
Bogra	Sadar	Honorary	1	305	304	42	939	3·9	61	16	2	305	3	12·5
	Sherpur	Ditto	1	19	19	100	23	.....	.....	.....	.....	19	1	.....
Rangpur	Sadar	Honorary	4½	277	284	41	738	.....	81	7	.....	65	3	.....
	Gabanda	Ditto	2	216	389	45	720	2·6	87	27	1	108	3	3·3
	Kuriganon	Ditto	1	73	81	52	222	.....	.....	1	.....	73	3	.....
	Nilphamari	Ditto	1½	98	103	34	220	13·4	100	.....	.....	73	3	.....
Jalpaiguri	Debaguri	Honorary	2	91	142	60	269	31·2	81	56	3	45	3	5·4
	Chandabari	Ditto	1	93	87	54	514	.....	40	11	1	93	5	9·1
	Dumdim	Ditto	1	35	44	70	88	0·0	.....	21	.....	46	3	.....
	Batagole	Ditto	1	81	123	68	195	5	60	13	.....	81	2	.....
Darjeeling	Sadar	Honorary	5	1,004	1,061	37	1,313	.....	68	4	.....	201	1	.....
	Nuxalluri	Ditto	1	6	15	86	27	.....	.....	.....	.....	6	4	.....
	Kurseong	Ditto	3	247	256	66	293	.....	.....	7	.....	82	1	.....
Divisional Total			23½	3,333	3,948	64	7,747	4·0	73·4	201	7	100	2	3
Total for 1891-92			204	2,732	3,246	63	8,491	0·9	71	157	17	93	3	11

NOTE.—The fractions mean that one officer was employed for the fractional part of the year.

Though the figures given in these tables afford useful indications of the work done by the different classes of Magistrates and by individual Magistrates, it would, in the Officiating Lieutenant-Governor's opinion, be a mistake to judge the efficiency or industry of Magistrates by reference solely to them. The ratio of witnesses detained by Stipendiary Magistrates over two days to the total number examined was 3·1 in the year under review, against 6·8 in the preceding year, and the Lieutenant-Governor is glad to acknowledge a great and satisfactory improvement in this very important matter. There has been a marked diminution during the last two years in the objectionable practice of adjourning cases in order to postpone unpleasant work. The Commissioner has made the following remarks on the practice of dealing with complaints by calling on the prosecutor to produce his witnesses, or summoning them to appear without issue of process against the accused :—

"The procedure is called a 'judicial enquiry,' though it is held *ex parte*, and is supposed to be under section 202, Criminal Procedure Code, though the record of reasons required by that section is seldom made. In false cases it gives the informant the opportunity of getting his calumnies set down without the chance of their being exposed by the persons defamed; in true cases it causes delay, and harasses witnesses by a double attendance. The object apparently is to secure a higher percentage of convictions to persons summoned—a result which is of little or no benefit when obtained by such expedients. The attendance of witnesses and the adjournments on such enquiries elude all check, as they do not appear in the returns."

There may in many cases be an advantage in enquiring into the complaint by examining witnesses before calling on the accused to appear. But it is easy to push the practice too far, and when the complainant on first appearance shows sufficient *prima facie* ground for action, probably no sensible officer would decline to act on the complaint.

The average number of cases disposed of per officer and the average number of witnesses examined in each case was less than in the previous year, while the number of cases remanded six times or more fell from 241 to 62. The working of Honorary Magistrates' Benches also shows an improvement.

9. The following table shows the results of sessions trials :—

	DISTRICTS.							Total.
	Dinajpur.	Rajshahi.	Pabna.	Bogra.	Rangpur.	Jalpaiguri.	Darjeeling.	
1	2	3	4	5	6	7	8	9
Number pending at commencement of year	8	6	8	...	9	1	4	36
Number committed during the year	34	31	28	24	53	7	11	180
Total for disposal	42	37	36	25	62	8	15	225
Number disposed of	34	32	32	25	61	8	13	205
Number in which conviction obtained	14	23	27	13	38	7	8	129
Number of above in which sentence modified or reversed by High Court	3	6	6	1	11	.....	2	29
Number of cases acquitted by Sessions Judge, or otherwise disposed of	20	9	5	13	23	1	5	76

10. The following table exhibits the attendance of Honorary Magistrates :—

DISTRICT.	Number of times asked to attend.	Number of times actually attended.	NUMBER OF TIMES ABSENT—		
			With leave or notice.	Without leave or notice.	Total.
1	2	3	4	5	6
Dinajpur ...	402	197*	106	106	212
Rajshahi ...	616	333	86	227	313
Pabna ...	971	701	69	201	270
Bogra ...	288	931*	.....	34	34
Rangpur ...	835	726*	68	137	205
Jalpaiguri ...	766	592	40	134	174
Darjeeling ...	239	170	65	4	69
Divisional total ...	4,147	3,650*	434	843	1,277

\* Include attendance out of turn.



There was an increase in the total number of cognizable cases from 13,499 in 1891-92 to 14,277, which is attributed to the high prices which prevailed until towards the close of the year.

Special preventive measures were adopted in Jalpaiguri, Rangpur, and Dinajpur, by establishing patrols, stationing police to co-operate with chaukidars, and providing alarm signals to be beaten when dacoits approach. As the Commissioner remarks, it is yet to be seen whether these tins will, after the fashion of scarecrows, have any effect in frightening away thieves, but the device is said to be popular with the people in the localities concerned.

11. The number of cases reported to the police and brought under inquiry was 11,701, of which 10,040 were investigated, and 713 were declared to be false.

Police.

Sixty-one charges of a serious character, including torture, extortion, and embezzlement, were brought against the police; of these 42 occurred in the Dinajpur district alone. The Lieutenant-Governor notes with dissatisfaction that these charges were not investigated in the manner prescribed for such cases, and that many of them were not specially reported.

12. The number of deeds registered increased from 76,106 in 1891-92 to 87,034 in 1892-93. The increase is normal and

Registration.

due to the increasing confidence of the public in registration. Two new offices were opened in Bogra.

The work done by the different registration offices is shown below:—

DISTRICT.	Class of Registration Office.	Number of offices.	Number of documents registered.	Average per office.
1	2	3	4	5
Dinajpur ... ..	Special ... ..	1	5,654	5,654
	Rural ... ..	4	10,765	2,691
Rajshahi * ... ..	Special ( <i>ex-officio</i> ) ...	1	1,544	1,544
	Rural ... ..	4*	4,364	1,091
Pabna ... ..	Special ... ..	1	3,662	3,662
	Rural ... ..	4	13,302	3,325
Bogra ... ..	Special ... ..	1	14,075	14,075
	Rural ... ..	2	1,293	646
Rangpur ... ..	Special ... ..	1	4,675	4,675
	Rural ... ..	6	22,889	3,815
Jalpaiguri ... ..	Special ... ..	2	3,203	1,601
	Rural ... ..	1	1,166	1,166
Darjeeling ... ..	Special ( <i>ex-officio</i> ) ...	3	442	147
Divisional Total ...	Special ... ..	10	33,255	3,325
	Rural ... ..	21	53,779	2,561
Divisional Total for 1891-92	Special ... ..	10	30,856	3,085
	Rural ... ..	19	45,250	2,381

\* One office was abolished in October 1892.



The total demand of land revenue recoverable within the year was Rs. 51,85,289, and the total collections Rs. 50,72,430. The prescribed standard of collections from permanently-settled estates, *i.e.*, 99 per cent., on the current annual demand, was reached in all the districts of the Division except in Rangpur. In that district the deficiency was due to the fact that a sum of Rs. 9,357, which was presumably paid within the year in another treasury, was received by transfer receipt after the close of the year.

The realizations on private estates temporarily leased to farmers were everywhere above the prescribed standard of 95 per cent., except in Rangpur, where they amounted to only 67·2 per cent. on the current demand. The deficiency has since been made good, but the Lieutenant-Governor agrees with the Commissioner in thinking that the arrears should have been realized within the year. The farming system of management has little to recommend it other than the facilities it ought to afford in realizing the Government demand with punctuality; where it fails of the attainment of this object, it may be said to have failed altogether.

On estates directly managed for proprietors, class III (a), the percentage of collections on demand was below the prescribed standard of 90 per cent. in Pabna on account of diluvion and the want of an adequate record of rights. Proceedings are, however, now being taken under chapter X of the Tenancy Act to prepare a record of rights of these estates.

The collections in Government estates managed direct, class III (b), were not up to the standard (90 per cent. on the current annual demand) in Rajshahi, Pabna, Bogra, and Jalpaiguri. The not altogether satisfactory results as regards this class of estates are attributed in Rajshahi to bad harvests, in Pabna to diluvion and deterioration of land by deposit of sand, and in Bogra to the fact that a sum of Rs. 4,638, realized by the Manager of the Jaipur estates a few days before the close of the year, could not be remitted to the treasury, 30 miles off, and credited in the accounts within the year. The Lieutenant-Governor is inclined to agree with the Commissioner that sums thus actually collected should not be shown as an arrear, though not brought on to the treasury books within the year.

In Jalpaiguri the demand from Government estates managed direct was increased by the sum of Rs. 82,087 obtained from the recent settlement operations in the Maynaguri tahsil. Owing to the lateness of the period when the new rent-rolls were furnished, the whole of this amount could not be collected within the year, but the Officiating Lieutenant-Governor observes with much satisfaction that the whole of this increased demand was paid up without objection after the close of the year.

The total collections of land revenue show an increase of Rs. 63,200 on those of the previous year.

The collections on account of road and public works cesses, with an increased demand, show an improvement both as respects the total amount realized, and relatively to the demand.

14. The settlement of the Maynaguri tahsil, resulting in an increase of revenue from Rs. 1,28,000 to Rs. 2,08,000, or 62·5 per cent., was completed, and for other tahsils reports and the work of actual assessment made considerable progress during the year. In these latter tahsils also a considerable increase of revenue is expected. The Lieutenant-Governor is glad to observe that the settlement of Maynaguri has stood the test of collections, and that no opposition to the assessments has been offered. It is satisfactory that so large an increase of revenue was obtained without opposition and paid without difficulty, and the results are very creditable to the Settlement Officer and the officers who supervised his proceedings. The Commissioner will doubtless keep a close watch on the future working of the settlements already concluded, and on the progress in the work that remains to be done.

The resettlement of the Kalimpong estates in Darjeeling resulted in an increase of revenue of Rs. 8,408, or 100 per cent. on the previous revenue.

15. Sums amounting to Rs. 9,862 for miscellaneous improvements, Rs. 8,100 for sanitary improvements, and Rs. 2,000 for agricultural public works, were expended in Government estates. Rs. 15,285 were spent in repairs of existing

Improvements in communications, sanitation, agricultural improvements in Government estates.

roads, besides Rs. 27,900 in opening out new routes in the backward part of the Government estates in Jalpaiguri. Naini Tal potato seeds were supplied to the cultivators in the Duars by the Agricultural Department, and the cultivation of them proved a success. A model farm for agricultural experiments and cultivation of new staples was started at Maynaguri.

16. The number of certificates issued during the year shows an increase from 5,571 to 6,914, the bulk of which were for arrears of road and public works cesses.

Certificates.

The following statement shows the number of cases disposed of, amount realized, and number pending at the close of the year:—

DISTRICT.	Department.	Number pending at beginning of the year.	Number issued during the year.	Total for disposal.	Amount of certificates.	Number disposed of during year.	Amount realized.	Number pending at close of year.
1	2	3	4	5	6	7	8	9
Dinajpur	General	729	926	1,655	Rs. 19,908	1,389	Rs. 5,452	286
	Cesses	98	420	518	15,922	410	13,029	106
	Wards	286	249	535	15,250	329	5,810	180
	Total	1,113	1,595	2,708	51,080	2,128	24,291	571
	Total for 1891-92	338	1,592	1,930	60,135	825	20,151	1,105
Rajshahi	General	89	263	352	7,361	195	4,093	127
	Cesses	155	649	804	10,006	454	9,732	350
	Wards	20	13	33	5,502	30	2,033	5
	Total	264	925	1,189	24,869	679	21,858	480
	Total for 1891-92	277	609	886	30,566	652	13,190	234
Farma	General	261	468	729	10,079	519	11,098	210
	Cesses	556	2,077	2,633	55,324	1,047	27,428	686
	Wards							
	Total	817	2,545	3,362	74,403	2,466	38,526	896
	Total for 1891-92	898	1,846	2,744	62,240	1,927	40,163	817
Bogra	General	11	135	146	8,111	117	6,380	10
	Cesses	35	259	294	9,381	256	7,895	38
	Wards							
	Total	46	394	440	17,492	373	14,275	48
	Total for 1891-92	50	247	307	16,375	261	12,723	46
Bangpur	General	268	1,023	1,291	67,949	982	55,095	308
	Total for 1891-92	176	1,050	1,226	68,554	984	54,801	268
Jalpaiguri	General	83	421	504	45,599	404	30,219	100
	Total for 1891-92	90	201	291	36,471	208	31,547	83
Darjeeling	General	12	23	35	4,015	29	3,417	6
	Cesses							
	Wards							
	Total for 1891-92	20	10	30	3,610	19	2,122	12
	Divisional total, 1892-93	2,565	6,914	9,479	2,95,406	7,001	1,94,327	2,418
	Total for 1891-92	1,840	5,571	7,411	2,61,751	4,855	1,78,757	2,565

17. The number of excise shops was reduced by 162, but the revenue remained almost stationary, being Rs. 8,86,862, against Rs. 8,86,594 in the preceding year.

Excise.

The Commissioner gives the following particulars regarding the cultivation of ganja:—

DISTRICTS.	Area cultivated in bighas.		Number of cultivators.		Produce in maunds.		Average produce per bigha.	
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
1	2	3	4	5	6	7	8	9
Rajshahi	874	2,298	1,649	2,082	3,788	4,417	Mds. s. c. 4 13 4	Mds. s. c. 1 30 11
Dinajpur	315	674	354	639	1,764	1,878	5 24 0	2 31 7
Bogra	127	563	414	798	460	1,279	3 31 5	2 10 6
Total	1,316	3,535	2,417	3,519	6,012	7,574	4 23 9	2 5 10

There was a large increase in the area under cultivation in 1892-93, but the outturn was short and deficient in quality, as it contained little resin and much

leaf. Much improvement is reported to have been effected in the punctual issue of storage licenses. The cultivators are said as a rule to act honestly and fairly, and petty pilfering and smuggling has, in the Commissioner's opinion, been minimized by constant supervision.

## Statement of Excise.

DISTRICT.	COUNTRY SPIRIT.				GANJA AND BHANG.				OPIMUM.			
	of Number shops.	License fees.	Gross gallons.	Total receipts.	of Number shops.	License fees.	Gross maunds.	Total receipts.	of Number shops.	License fees.	Gross maunds.	Total receipts.
1	2	3	4	5	6	7	8	9	10	11	12	13
Dinajpur	48	Rs. 37,354	31,480	Rs. 18,683	44	Rs. 18,683	52	Rs. 31,456	38	Rs. 12,041	39	Rs. 44,371
Rajshahi	16	34,427	11,300	35,487	48	17,010	71	25,920	39	8,630	30	33,323
Palna	31	32,285	10,379	32,295	40	25,744	90	48,570	23	5,674	16	19,343
Bogra	24	18,601	6,664	18,601	51	14,169	43	23,000	23	6,330	17	21,158
Rangpur	45	33,479	10,324	33,479	105	25,557	115	51,460	106	20,021	74	37,497
Jaipalguri	40	1,03,206	27,534	1,03,206	43	12,601	73	29,275	20	9,577	7	2,015
Darjeeling	25	1,04,331	26,463	1,04,331	6	4,519	21	9,136	5	1,240	6	6,324

DISTRICT.	Revenue from all sources.	Rate per head of population.
1	2	3
Dinajpur	Rs. 1,19,408	Rs. A. P. 0 1 8
Rajshahi	1,14,313	0 1 5
Palna	1,04,278	0 1 3
Bogra	66,728	0 1 4
Rangpur	1,76,378	0 1 4
Jaipalguri	1,44,411	0 3 4
Darjeeling	1,61,262	0 11 6

18. There was an increase of Rs. 1,20,195 from the sale of stamps, attributable to the general progress of the country in wealth and population, and a slight increase to Rs. 3,12,890 from Rs. 3,08,009 in the income-tax demand. Great difficulty was experienced in realizing income-tax from the tea-planters of Jaipalguri.

19. The following table gives the principal educational statistics for the Division, exclusive of private institutions:—

DISTRICT.	Class of schools.	Number of schools.	Number of pupils on rolls.	Cost.						Cost per head of pupils.	Population of district.	Number of boys of school-going age.	Percentage of boys at school to boys of school-going age according to Director of Public Instruction's report.
				Provincial.	District Board.	Municipality.	Fees.	Other.	Total.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Dinajpur	High ... ..	1	212	Rs. 1,875	Rs. ....	Rs. ....	Rs. 3,758	Rs. 300	Rs. 5,927	Rs. A. P. 27 15 3	1,655,835	121,807	18'1
	Middle ... ..	30	1,740	240	4,051	587	3,940	5,065	14,487	8 3 11			
	Primary ... ..	817	10,075	.....	9,707	104	31,769	7,910	40,540	2 9 0			
	Miscellaneous ... ..	3	3	31	87	.....	.....	.....	118	39 6 4			
	Total ... ..	850	21,030	2,140	14,508	691	36,451	13,279	70,072	3 5 3			
	Total for 1891-92 ... ..	870	21,306	3,011	13,870	380	40,127	15,733	73,156	3 7 0			
Rajshahi	High ... ..	5	654	Rs. 3,227	Rs. 360	Rs. 1,200	Rs. 13,347	Rs. 4,744	Rs. 23,108	Rs. A. P. 24 5 6	1,313,336	96,151	13'4
	Middle ... ..	24	1,324	360	4,889	.....	2,683	9,273	17,305	12 12 1			
	Primary ... ..	399	11,342	804	10,837	764	9,662	5,981	25,008	2 7 6			
	Miscellaneous ... ..	1	74	8,258	.....	.....	234	.....	3,492	47 3 0			
	Total ... ..	429	13,404	8,309	15,736	2,054	25,720	19,998	71,813	5 3 10			
	Total for 1891-92 ... ..	426	13,005	8,314	16,809	2,818	24,500	10,075	72,485	5 9 0			
Palna	High ... ..	5	1,322	Rs. 3,004	Rs. ....	Rs. 450	Rs. 16,322	Rs. 3,584	Rs. 23,260	Rs. A. P. 17 9 6	1,362,391	101,636	16
	Middle ... ..	50	8,896	1,041	6,987	470	12,841	15,661	33,440	8 10 6			
	Primary ... ..	487	14,079	357	12,996	420	11,719	5,940	29,432	2 1 5			
	Miscellaneous ... ..	3	44	155	545	.....	.....	.....	700	15 14 6			
	Total ... ..	551	19,391	4,587	20,328	1,340	40,222	20,335	67,082	4 8 0			
	Total for 1891-92 ... ..	558	19,687	4,640	19,628	1,154	38,968	19,320	63,568	4 4 0			

DISTRICT.	Class of schools.	Number of schools.	Number of pupils on rolls.	Cost.						Cost per head of pupils.	Population of district.	Number of boys of school-going age.	Percentage of boys at school to boys of school-going age according to Director of Public Instruction's report.
				Provincial.	District Board.	Municipality.	Fees.	Other.	Total.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Bogra	High	2	304	Rs. 2,313	Rs. ....	Rs. 420	Rs. 6,088	Rs. 315	Rs. 9,136	Rs. 25 1 6	817,404	62,837	17.2
	Middle	28	1,675	.....	3,390	23	5,344	4,172	12,928	7 11 5			
	Primary	316	9,101	610	4,117	363	9,561	1,877	16,440	1 12 11			
	Miscellaneous	3	10	90	280	.....	.....	.....	370	37 14 4			
	Total	349	11,150	2,022	7,587	808	20,982	6,364	34,873	3 7 0			
Total for 1891-92		346	11,160	2,365	9,346	924	19,464	5,284	36,749	3 3 0			
Rangpur	High	4	650	Rs. 3,607	Rs. 9,102	.....	Rs. 8,679	Rs. 7,672	Rs. 19,018	Rs. 30 10 3	2,065,464	159,272	13.6
	Middle	40	3,344	680	9,102	.....	8,602	14,517	32,001	9 11 10			
	Primary	713	18,191	403	17,725	248	23,215	5,651	47,323	2 9 7			
	Miscellaneous	7	290	6,941	1,849	.....	572	2,018	11,380	39 3 10			
	Total	762	22,477	11,781	24,076	248	40,408	20,758	1,11,231	4 15 2			
Total for 1891-92		719	20,719	12,144	27,181	240	36,006	26,033	1,01,604	4 15 0			
Jalpaiguri	High	1	230	Rs. 2,349	Rs. ....	Rs. 3,345	Rs. ....	Rs. 5,694	Rs. 21 15 0	681,352	54,690	13	
	Middle	23	1,000	177	2,747	210	1,707	4,743	9,644				9 0 4
	Primary	272	6,187	2,784	3,063	30	5,423	2,810	14,554				2 5 7
	Miscellaneous	2	4	20	60	.....	.....	76	19 0 0				.....
	Total	298	7,519	5,334	6,306	240	10,535	7,563	29,968				8 15 0
Total for 1891-92		306	7,643	5,600	6,945	205	11,076	7,730	31,225	4 1 6			
Darjeeling	High	1	240	Rs. 2,712	Rs. ....	Rs. 1,200	Rs. 1,172	Rs. 5,084	Rs. 21 2 11	223,314	18,457	15.4	
	Middle	3	133	740	.....	360	414	1,007	2,581				19 6 5
	Primary	97	2,835	5,195	.....	.....	320	7,238	12,798				4 8 3
	Miscellaneous	1	23	192	.....	.....	.....	1,057	1,240				54 4 10
	Total	102	3,230	8,839	.....	1,560	1,906	9,407	21,712				6 11 7
Total for 1891-92		92	2,701	13,508	.....	1,460	2,545	8,329	25,843	9 9 0			
Total of Division	High	19	4,001	Rs. 19,747	Rs. 32,006	Rs. 3,360	Rs. 52,505	Rs. 16,515	Rs. 92,127	Rs. 23 0 4	8,019,187	616,909	14.5
	Middle	233	13,182	3,238	.....	1,660	34,430	51,702	1,53,086	9 10 3			
	Primary	3,101	85,808	10,207	58,345	1,331	91,559	35,462	1,98,094	2 7 2			
	Miscellaneous	18	448	10,606	2,817	.....	806	3,075	17,394	38 13 2			
	Grand total for 1892-93	3,361	98,439	43,898	95,828	6,941	1,79,306	1,06,744	4,30,701	4 6 0			
Grand total for 1891-92		3,340	96,213	40,741	92,645	7,190	1,73,283	1,02,424	4,25,383	4 6 7			

NOTE.—In the above statement the cost of buildings, furniture, inspection, scholarship is and miscellaneous charges, amounting to Rs. 6,263, is not included.

There were altogether 3,361 public schools, with 98,439 pupils out of a population of 8,019,187. There were also 249 private institutions with 2,660 pupils, which are not included in the above statement, giving a total of 3,610 schools with 101,099 pupils. The number of boys of a school-going age calculated at 15 per cent. of the male population is 616,909, and only about one in every seven of the boys who ought to be at school is really receiving any kind of literary instruction. These figures show that education is lamentably backward in all the districts of the Division, not alone absolutely, but relatively to other parts of Bengal. The Chittagong Division may be taken by way of example. In it as a whole the ratio of boys attending school to the total number of a school-going age is 47 per cent., while in the Noakhali district it is as high as 62.3 per cent. The number of schools increased since the preceding year by 21, and of pupils attending them by 2,226. But the progress made is, as Mr. Nolan remarks, very slow and partial:—

"It would," he adds, "be much accelerated were we to abandon all half measures, and introduce in the Regulation districts the system of payment by results in its entirety. The expenditure on stipendiary schools in 1891-92 was Rs. 24,646 out of a total grant for primary education of Rs. 60,569. This year it was Rs. 25,707 out of a total of Rs. 64,669—figures which give little support to the assumption that there has been any marked change in policy. In Pabna, Bogra and Rangpur the proportion of the grant spent on stipends seems excessive. It is seldom that any good reason can be assigned in such districts for giving one school an allowance, and perhaps the examination rewards also, while another gets the rewards only. The true explanation would generally disclose some forms of favouritism, inconsistent with obtaining the greatest possible results from the very limited means available."

The total expenditure on education, with only 98,439 pupils at school, was Rs. 4,30,701, exclusive of miscellaneous charges, cost of inspection, buildings

and scholarships, against Rs. 3,92,703 in Chittagong, with a school-going population of 142,306 pupils, and the cost per pupil in Rajshahi was Rs. 4-6 against little more than half that amount (Rs. 2-12) in Chittagong. In the Officiating Lieutenant-Governor's opinion the state of things disclosed by these figures demands inquiry and explanation by the Educational authorities. Why is it that 62·3 per cent. of boys of a school-going age attend school in the Muhammadan district of Noakhali, while only 13·4 per cent. of them are at school in the Rajshahi district; and why does the average cost per pupil amount to Rs. 5-4 in the latter against Re. 1-10 in the former district? A technical school was opened during the year at Pabna, but it is yet premature to say what degree of success may attend it.

Dispensaries.

20. The following table gives the statistics relating to dispensaries:—

DISTRICT.	Number of dispensaries.	INCOME FROM—					DAILY AVERAGE PATIENTS.		Ratio per cent. of out-door patients to total population.
		Government.	District Board.	Municipality.	Subscriptions.	Total.	In-patients.	Out-patients.	
1	2	3	4	5	6	7	8	9	10
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Dinajpur	8	150 4 6	617 2 8	3,110 13 9	6,114 12 3	10,593 1 2	20·22	132·03	1·17
Rajshahi	9*	116 0 0	268 0 0	2,790 0 0	9,169 0 0	12,313 0 0	28·69	290·07	2·82
Pabna	4	741 12 1	675 10 4	8,403 5 5	3,513 14 3	8,337 10 1	27·43	140·93	1·73
Bogra	6	287 2 6	1,000 5 7	1,949 4 1	1,188 2 8	5,024 12 10	10·81	138·77	2·62
Rangpur	13	153 14 6	1,090 0 0	2,079 8 8	8,332 8 8	12,533 12 10	21·	266·03	2·91
Jalpaiguri	0	943 14 0	765 0 0	1,380 12 9	3,261 5 0	5,730 1 3	14·07	80·93	2·47
Darjeeling	4	858 0 0	1,197 0 0	5,180 0 0	1,913 0 0	9,148 0 0	21·26	101·47	11·96
Divisional total	50	2,650 15 4	6,172 0 7	20,793 12 8	34,965 11 7	61,297 8 2	161·48	1,175·82	2·52
Total for 1891-92	44	1,788 0 3	5,613 13 9	18,085 0 3	27,800 7 6	53,887 5 9	138·94	1,165·99	2·55

\* One dispensary (Dighapatin) is maintained by the Dighapatin estate. Figures not available.

Though the people of the Rajshahi Division appear to be unwilling to send their children to school, they display readiness to avail themselves of medical aid, and more liberality in providing it than the inhabitants of Chittagong. The number of patients treated at dispensaries was 206,173, or more than double the number of children at school, while the private subscriptions to dispensaries amounted to Rs. 34,365, or more than four times the amount subscribed in the Chittagong Division.

The dispensaries, of which there are 50, have, the Commissioner remarks, done excellent work, not only directly, but also by diffusing a knowledge of English medicines.

21. The Lieutenant-Governor is glad to observe that the Commissioner is able to report that the local bodies generally worked well during the year, and that in no case was there any marked neglect of duty on their part. There is a tendency shown by them to increase establishments, which, however, is duly checked by the Commissioner.

Local Self-Government Institutions.

State of public feeling.

22. On this subject Mr. Nolan makes the following remarks:—

“The planters of Darjeeling were much exercised during the year by the recruiting in their neighbourhood for employment in the army and on police work; those of Jalpaiguri by the proposed extension to their estates of the chankidari system; and in both districts by the orders directing the assessment of commission paid to Managers for income-tax. I did not notice any manifestation of opinion among other classes in this part of the Division. In the Regulation districts the sentiments entertained are those of Lower Bengal generally, without any local colouring that I can discern. The Muhammadans are concerned mainly about their supposed decline as a community in position and power, through the introduction of competition for public offices, and of educational tests which do not recognize their special attainments in Persian or Arabic. Among the Hindus the lawyers, and generally those under the influence of English education, are more or less in sympathy with the views expressed by the vernacular press and by the Congress Association. They joined in the agitation against the notification altering the list of offences triable by jury, and I have no doubt really felt considerable interest in the subject. The members of the general community, including the trading and productive classes, whose education is confined to oriental languages, take no part in the discussion of such topics. They consider the politics of the day in Bengal,—except where, as in the case of Muhammadans, a religious sentiment

is touched,—to be beyond their control and out of the sphere of their interests. The power of exercising influence has, in their view, fallen into the hands of the few who speak the dominant language, and it is useless for others to attempt interference.”

Conduct of the zamindars.

23. Regarding the conduct of zaminders of this Division, the Commissioner makes the following

remarks:—

“According to Bengal tradition, the work of agriculture belongs exclusively to the raiyat; that of keeping correct accounts to the Government patwaris, if such there be; while the functions of the zamindar are to collect as much as he can, to pay the inevitable revenue, to support the established Government, and to be liberal according to his means. Judged by this standard, our landholders have behaved very well. They do not contribute to the cost of cultivation, whether by effecting improvements, reclaiming jungle, or otherwise; they have never regarded the provisions of the Permanent Settlement, and of many subsequent laws, that only a fixed rent shall be levied, to the exclusion of occasional cesses; so many of them have purposely prepared their papers to support claims to rates higher than those in force, that their accounts are not to be trusted; but they satisfy the public dues, help the Administration in many ways, and are very charitable.”

As a class the zamindars bear voluntarily a great part of the expense of education. It is by them the principal temples are built, and they take more than their share of the burden of supporting the poor in a country where poor laws are unknown. But, on the other hand, several of them, in Pabna especially, are unfavourably mentioned as provoking agrarian riots and fomenting disputes which are carried on not merely by open violence, but also by the aid of false accusations in the Courts and by perjury; this evil is, however, decreasing.

Babu Kali Prasanno Bhaduri of Porjona in Pabna, Nawab Abdus Sobhan of Bogra, the Maharaja of Dinajpur, Rai Govinda Roy Sahib Bahadur, Babu Krishna Roy Chowdhry, and Chaudhrani Saudamini of Dinajpur, are specially mentioned for their public spirit and liberality.

The Maharani Surnamoyi, C.I., maintained a higher English school and well equipped dispensary in Rangpur; Raja Mohima Ranjan Rai of Kakina maintained a dispensary and two English schools, and is also a popular and considerate landlord. His Highness the Maharaja of Kuch Bihar was most generous in supporting schools and dispensaries on the estates owned by him in the Jalpaiguri district.

24. The Government of Bhutan was conducted with firmness, the inter-regnum in the office of the Deb Raja was brought to a close, and the delimitation of the boundary with Jalpaiguri was completed during the year. The administration of Sikkim, Political. was conducted by a council of Lamas, Dewans, and Kazis acting in cordial co-operation with Mr. White, the Assistant Political Officer, under the general supervision of the Commissioner.

25. The Officiating Lieutenant-Governor's thanks are tendered to Mr. Nolan for his able and efficient administration, as well as for his excellent report. The remarks on the character of the officers will be communicated to the Appointment Department.

By order of the Lieutenant-Governor of Bengal,

M. FINUCANE,

*Offg. Secretary to the Govt. of Bengal.*



RESOLUTION ON THE ADMINISTRATION REPORT OF THE  
PORTS IN ORISSA FOR 1892-93.

No. 2315 Marine.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

Dated Calcutta, the 5th October 1893.

RESOLUTION.

READ—

The Administration Report of the Ports in Orissa for 1892-93.

1. *False Point.*—The receipts of the port show a decrease of Rs. 171 as compared with those of the preceding year. The details are given in the table below:—

PARTICULARS.	1891-92.	1892-93.	Increase.	Decrease.	REMARKS.
	Rs.	Rs.	Rs.	Rs.	
Port-dues on vessels—	1,268	1,700	432	.....	
Foreign trade	821	620	.....	201	
Coasting "	34	23	.....	11	
Native craft	7,404	7,008	.....	396	
Mail steamers	4	9	5	.....	
Miscellaneous					
Total	9,531	9,360	437	608	

The increase in the port-dues from foreign-trade vessels is attributed to the higher tonnage of the vessels visiting the port, while the decrease under the other heads, except "Miscellaneous," is due to fewer visits paid by vessels during the year.

2. The charges which amounted to Rs. 7,588, against Rs. 6,146 during the previous year, are summarized below:—

NATURE OF CHARGES.	1891-92.	1892-93.	Increase.	Decrease.	REMARKS.
	Rs.	Rs.	Rs.	Rs.	
Establishment	3,542	3,061	.....	481	
Boat establishment	2,201	2,206	5	.....	
Travelling	112	105	.....	7	
Contingencies	101	257	156	.....	
Dockyard services and supplies	190	1,959	1,769	.....	
Total	6,146	7,588	1,930	488	

The decrease in establishment charges is due to the reduced rate of salary of the Port Officer, who was officiating during the absence on furlough of the permanent incumbent. The increase under "Contingencies" is owing to the payment of the charges for blowing up a wreck off False Point. In the report as received the expenditure on dockyard services and supplies for 1891-92 is shown as *nil*, but on a reference to the excluded local funds accounts, it has been ascertained that Rs. 190 was expended. No information has been given as to the reason of the large expenditure during 1892-93, further than that it is due to transfers made by the Accountant-General. The sum of Rs. 7,588 shown above is exclusive of Rs. 1,822, expended by the Public Works Department in repairing the existing buildings, roads and revetments.

8. The following table shows the number and the tonnage of the vessels that entered and cleared during the year as compared with 1891-92:—

Year.		Entered.		Cleared.	
		No.	Tonnage.	No.	Tonnage.
1891-92	...	78	96,389	78	96,389
1892-93	...	56	74,559	55	74,522

Of the 56 vessels that entered the port, 36 were steamers, all of which were engaged in the coasting trade. Of the 20 sailing vessels, 8 were engaged on the foreign trade and 12 on the coasting trade.

Of the vessels that cleared, 37 were steamers, of which 4 were employed on the foreign trade and 33 on the coasting trade. Of the eighteen sailing vessels that cleared 10 were employed on the foreign trade and 8 on the coasting trade. There is a fall both in the number and the tonnage of the vessels entering the port, which is ascribed chiefly to a smaller export of rice to foreign and coast ports.

4. The following statement shows the value of the trade of the port during the years 1891-92 and 1892-93:—

		Private trade.		Government stores.		Total.	
		1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Exports	...	41,55,994	32,35,162	.....	14	41,55,994	32,35,176
Imports	...	38,840	1,61,261	2,336	18,729	41,176	1,79,990
Total	...	41,94,834	33,96,423	2,336	18,743	41,97,170	34,15,166

On comparing these figures with the value of the trade given by the Collector of Customs in his report, it is observed that while there is no difference in the total value of the export trade, the whole of it is shown as private trade by the Collector of Customs. The discrepancy is very slight. Under imports, however, the discrepancy is larger, as will be seen from the table below:—

	Figures given by Commissioner.	Figures given by Collector of Customs.
	Rs.	Rs.
Private trade ..	... 1,61,261	1,61,506
Government stores	... 18,729	18,754
Total	1,79,990	1,80,260

As both officers profess to give the same result, the figures should agree.

5. No cases of throwing ballast under the Indian Ports Act X of 1889 were reported. The officers of the port are of opinion that if stone ballast is deposited on the old ballast ground inside the harbour, it can be utilized in improving and strengthening the buildings at Hookeytollah and in protecting the seaface in front of the Refuge-house at that station. Separate proposals on the point have been called for by the Commissioner and are awaited.

6. The buoys marking the Fairway Channel have been painted and overhauled, and are in good order; those in the Bakud and Jumboo Channels are reported to be mostly very old, and nearly worn out. The Collector has been requested to take steps towards replacing them.

7. The canal communication between Cuttack and False Point was interrupted during May 1892 for the repairs of the canal, and from the 25th July to the end of the year for repairs of the breaches caused by the high floods of July 1892. During these periods communication was carried on *via* the Gobri river and the Kendrapara Canal.

8. *Puri*.—The receipts of the port amounted to Rs. 1,789, against Rs. 2,796 during the previous year. \* Details are shown in the table below :—

PARTICULARS.	1891-92.	1892-93.	Increase.	Decrease.	REMARKS.
	Rs.	Rs.	Rs.	Rs.	
Port-dues on sailing vessels ...	39	240	201	.....	
Ditto on British India Steam Navigation Company's Steamers.	2,738	1,524	.....	1,214	
Port-dues on other steamers ...	19	25	6	.....	
Total ...	2,796	1,789	207	1,214	

The decrease is ascribed to fewer visits of steamers exporting rice, owing to the high prices prevailing in the district, and to a reduced demand from foreign ports.

9. The disbursements of the port during the past two years are shown below :—

PARTICULARS.	1891-92.	1892-93.	Increase.	Decrease.	REMARKS.
	Rs.	Rs.	s.	Rs.	
Light-house establishment ...	312	306	.....	6	
Ditto contingencies ...	14	34	20	.....	
Vessels and boats establishment	318	318	.....	.....	
Ditto contingencies	132	79	.....	53	
Total ...	776	737	20	59	

10. The number and tonnage of the vessels entering and clearing the port as compared with those of the preceding year are shown in the following table :—

Year.	Entered.		Cleared.	
	No.	Tonnage.	No.	Tonnage.
1891-92 ...	33	47,012	33	47,012
1892-93 ...	20	26,603	20	26,603

Of these, 16 were steamers and 4 sailing vessels.

11. The total value of the export and import trade is shown below :—

		Private trade.		Government stores.		Total.	
		1891-92.	1892-93.	1891-92.	1892-93.	1891-93.	1892-93.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Exports ...	...	6,00,608	3,30,232	.....	.....	6,00,608	3,30,232
Imports ...	...	6,362	139	1,123	22	7,485	161
Total ...	...	6,06,970	3,30,371	1,123	22	6,08,093	3,30,393

A comparison of these figures with those given by the Collector of Customs shows that while the two authorities agree as to the value of the import trade, there is a large difference in the value of the exports.

The amounts given by each officer are shown below :—

		Figures by Commis- sioner. Rs.	Figures by Collector of Customs. Rs.
Private trade ...	...	3,30,232	3,04,838
Government stores ...	...	.....	.....
Total ...	...	3,30,232	3,04,838

The attention of the Commissioner will be invited to this large difference.

12. *Balasore*.—Under this port are also included the minor ports of Churaman, Laichhampur, Chanua, Subarnarekha, Dhamra (Chandbally), and Sartha. The total receipts as compared with those of the preceding year are shown in the following table:—

PARTICULARS.	1891-92.	1892-93.	Increase.	Decrease.	REMARKS.
	Rs.	Rs.	Rs.	Rs.	
Port-dues on European vessels	.....	.....	.....	.....	
Ditto on Native craft ...	1,419	809	.....	610	
Ditto ditto steamers	1,493	1,600	107	.....	
Registration fee under Act X of 1841.	.....	7	7	.....	
Sale-proceeds of unclaimed property.	1	35	34	.....	
Miscellaneous ... ..	4	20	16	.....	
Total ...	2,917	2,471	164	610	

There has been a large decrease in the collection of port-dues on native craft, which is said to be due to a falling off in the export of rice, consequent on the failure of the crop in a part of the district, but in the Commissioner's opinion this decrease is due to a reduced demand from foreign markets.

13. The table below compares the disbursements of the year with those of the preceding year:—

PARTICULARS.	1891-92.	1892-93.	Increase.	Decrease.	REMARKS.
	Rs.	Rs.	Rs.	Rs.	
Establishment ... ..	5,660	5,934	274	.....	
Travelling allowance ...	157	70	.....	87	
Contingencies ... ..	36	50	14	.....	
Miscellaneous ... ..	760	540	.....	220	
Pensions ... ..	135	5	.....	130	
Dockyard services and supplies.	4,955	4,551	.....	404	
Light-house establishment ...	3,208	3,381	173	.....	
Ditto contingencies ...	21	.....	.....	21	
Percentage paid to Government.	91	101	10	.....	
Total ...	15,023	14,632	471	862	

14. The accounts of this port have always shown a deficit, which has to be met from Provincial Funds, and in order to reduce this deficit, the rate of port-dues has from the 1st May 1893 been raised to the maximum of 4 annas per ton, and a Bill is now before the Legislative Council to amend the Act so as to enable the dues to be levied on mail steamers and coasting vessels once in 30 days, instead of once in 60 days, as at present.

15. The total number of vessels which entered and cleared as compared with that of the previous year is shown below:—

	Entered.		Cleared.	
	No.	Tonnage.	No.	Tonnage.
1891-92	345	78,380	364	78,869
1892-93	339	82,019	339	81,556

Of the number which entered the port, 275 were steamers and 64 sailing vessels—all of which were from coasting ports, with the exception of 4 sailing vessels. Of the number cleared, 271 were steamers and 68 sailing vessels, 4 of the latter going to foreign ports and the remainder to coasting ports. The

decrease in the number of vessels visiting the port is ascribed to a reduced export of rice, consequent partly to failure of crops in the north of the district, and partly to export by land.

16. The value of the export and import trade is shown below:—

PARTICULARS.	Private trade.		Government stores.		Total.	
	1891-92.	1892-93	1891-92	1892-93.	1891-92.	1892-93.
Exports	Rs 48,49,130	Rs. 41,29,697	Rs 125	Rs. 850	Rs. 48,49,255	Rs. 41,30,047
Imports ...	74,92,971	64,34,096	1,77,218	1,92,577	76,70,184	66,16,673
Total ...	1,23,42,101	1,05,63,793	1,77,338	1,82,927	1,25,19,439	1,07,46,720

There is a small difference in the value of the import trade as shown in the statement above and that shown by the Collector of Customs. The latter officer has shown the value of the private trade at Rs. 64,33,585, or Rs. 511 less than what is shown by the Commissioner.

17. A weekly steamer service was maintained throughout the year between Calcutta and Chandbally by three steamer companies. From December 1892 to March 1893 almost every week four or five steamers arrived at Chandbally from Calcutta, some of them making double trips. The river having become shallow, the steamer to Alba sometimes stopped at Balpal and sometimes went to Chandbally. The steam service between Balasore and Calcutta was kept up by the S.S. *Bassein* alone, the other steamers having been withdrawn. Communication between Cuttack and Chandbally was kept up *via* the Kendrapara Canal by the canal steamers.

18. There was no accident to the Tower and subsidiary lights of Shortt's Island. The Balasore light at Chandipur is visible at a distance of 10 miles, and is in good order.

19. All the buoys at Chandbally were overhauled and painted; those at Balasore remain to be done.

20. The channels at the Brahmani and Byturni rivers gave rise to no inconvenience, nor was there any complaint. There has been no improvement in the channel of the Borobalong river. The guts are narrow, and can only be used by vessels of light draught and during high tide.

By order of the Lieutenant-Governor of Bengal,

C. W. ODLING,

*Secretary to the Govt. of Bengal.*

### RESOLUTION ON THE ANNUAL REPORT OF THE PORT OFFICER OF CALCUTTA FOR 1892-93.

No. 2382 Marine.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT

*Dated Calcutta, the 13th October 1893.*

#### RESOLUTION.

READ—

The Annual Report of the Port Officer of Calcutta for 1892-93.

THE department was presided over by Lieutenant E. W. Potley, R.N., throughout the year. The report is submitted by his successor, Captain Creagh, who relieved Lieutenant Petley on 1st April 1893.

2. The strength of the Pilot Service at the close of the year was 60 pilots and 15 leadsmen, showing an increase of two leadsmen, consequent on new appointments. Two leadsmen were admitted locally, and two were brought out from England.

3. The table below exhibits the number of arrivals and departures of steamers and sailing vessels during the past three years:—

				Arrivals.	Departures.	Average tonnage.
Steamers	...	1890-91	...	811	816	2,569
		1891-92	...	897	887	2,633
		1892-93	...	844	841	2,697
Sailing ships	...	1890-91	...	233	236	1,635
		1891-92	...	220	200	1,489
		1892-93	...	221	220	1,409

To this have to be added eight light-vessels, 10 pilot brigs, and 30 other Government vessels; also 10 vessels put back, and three inland steamers and tugs. There has been a slight reduction in the number of steamers visiting the port, but the average tonnage has increased. On the other hand, the number of sailing vessels shows a small increase with a reduction of the average tonnage.

4. The subjoined statement shows the number of vessels drawing 21 feet and over, which were piloted inwards and outwards during 1891-92 and 1892-93:—

YEARS.		Steamers or sailing ships.	21 to 22 feet.		22 to 23 feet.		23 to 24 feet.		24 to 25 feet.		25 to 26 feet.		26 to 27 feet.		Total.		
			Inward.	Outward.	Inward.	Outward.	Inward.	Outward.	Inward.	Outward.	Inward.	Outward.	Inward.	Outward.			
1891-92	{	Steamers	...	49	94	35	111	36	156	10	90	...	26	1	3	151	479
		Sailing ships	...	39	49	26	33	12	20	1	3	...	...	...	...	78	105
		Total	...	88	143	61	144	48	176	11	93	...	26	1	3	229	584
1892-93	{	Steamers	...	45	65	41	96	37	134	10	88	...	24	...	2	133	409
		Sailing ships	...	36	54	24	39	6	18	1	6	...	1	...	...	63	118
		Total	...	81	119	65	135	43	152	11	94	...	25	...	2	199	527

The number of outward vessels drawing more than 23 feet of water has decreased from 297 to 273.

5. There were 33 cases of groundings and 6 cases of collisions during the year, against 32 and 9 during the previous year. No damage was done to any vessel in the casualties by grounding, except in the case of the S.S. *Anglia*, which was totally lost. The result of the enquiries into the casualties by collision shows that they were all accidental. The percentage of casualties during the year was 1.83 against 1.86 and 2.81 during the two previous years. This improvement is satisfactory.

6. The receipts and expenditure on account of pilotage for the last three years are shown below:—

				Receipts.	Expenditure.
				Rs.	Rs.
1890-91	...	...	...	8,57,952	8,03,610
1891-92	...	...	...	9,01,447	8,20,617
1892-93	...	...	...	8,50,200	8,41,527

The expenditure does not include the payments made in England, which are approximately Rs. 2,00,000 per annum.

7. The question of reducing the strength of the pilot service to 50 pilots and 14 leadsmen was under the consideration of Government during the year. It has been decided to limit the annual recruitment of leadsmen apprentices up to the year 1899, when it is expected the service will be reduced to 50 pilots and 14 leadsmen. This measure, though not causing any direct saving to Government, will in the future effect a saving under leave and pension allowances, and thus help to produce equilibrium between the total receipts and expenditure.

8. Slight changes have occurred in the Eastern Channel. The Gasper Channel has remained very steady. Extensive alterations have occurred at the lower end of the Saugor roads. The Jellingham Channel was fairly good,

excepting for the formation of moveable lumps to which it is liable. With the loss of the *Anglia*, a dangerous bar formed across the river, and, although to the southward of the wreck, is still there. One inward bound and one outward bound vessel were neaped for want of sufficient water over the bars.

9. The steamer *Guide* was twice docked during the year and extensive repairs executed. The pilot brig *Sarsuti* was in the hands of the Dockyard authorities on three occasions, the last in March 1893, when she was thoroughly overhauled. The brig *Fame* was docked twice, and in addition to the repairs she received, she was supplied with a new jibboom and top gallant yards in place of those carried away by bad weather.

10. A new pilot brig, to be named the *Alice*, is under construction in the Government Dockyard at Bombay, to replace the *Coleroon*, which was lost in the cyclone of November 1891. She is expected to be ready for service at the end of 1893.

11. The number of certificates of each class granted to Masters, Mates, and Engineers after examination at Calcutta, is shown in the table below:—

Nature of certificate.	Candidates.	Total number examined.	RESULT.			Provincial certificate granted.	Renewal of certificates.	REMARKS.
			Passed.	Failed.	Ineligible.			
Colonial ...	Master ... ..	36	24	12	...	...	...	(a) For 12 months ending 23rd March 1893.
	First mate ... ..	36	23	13	...	...	...	
	Only mate ... ..	2	1	1	...	...	...	
	Second mate ... ..	48	29	19	...	...	...	
	First class Engineer ... ..	7	2	5	...	...	...	
	Second class Engineer ... ..	20	11	9	1	...	...	
	Master ... ..	3	1	1	...	...	...	
Local ... ..	Mate ... ..	1	1	...	...	(a) 1	...	
	Engine-driver under Act VII of 1884 ... ..	6	4	2	...	...	...	
	First class master, inland ... ..	7	6	1	...	...	...	
	Second class master ... ..	31	25	6	...	...	...	
	Steward ... ..	30	24	6	...	...	...	
	Engineer ... ..	1	...	1	...	...	...	
	First class engine-driver ... ..	12	7	5	1	...	...	
	Second ditto ... ..	11	8	3	...	...	...	
	Total ... ..	250	166	84	2	...	...	

12. In addition to the above, one certificate as ship surveyor was issued during the year.

13. One vessel was registered under the Merchant Shipping Act, 1854, and two under Act X of 1841. The registry of one vessel under the latter Act was cancelled.

14. Two vessels were detained under the provisions of Act VII of 1880 as unseaworthy, and were not allowed to proceed to sea until the surveyor reported that the causes for complaint had been removed. One vessel was detained, as her boats were found to be defective, and the biscuits for the crew unfit for consumption. On the Marine Surveyor and the Health Officer reporting that these defects had been made good, she was released and permitted to proceed to sea.

15. The ship *Crofton Hall* which left Calcutta on the 3rd June 1892 returned on the 13th idem on account of what was supposed to be an outbreak of cholera on board. An enquiry was held by the Health Officer of the Port, assisted by Drs. Simpson, Cunningham, Ranking and Crombie, and the outbreak was clearly shewn to be the result of poisoning from the use of putrid meat. There was no reason to believe that the meat when shipped was bad, though that in the particular cask to which the outbreak is attributed might have been; its condition was, however, sufficiently accounted for by the fact that it was kept for four months in what is known as the harness cask, without the brine being renewed. The attention of masters of ships was called to the necessity of care in this respect.

16. The appointment of Port Officer has, under the orders of the Secretary of State, been declared to be terminable at the end of five years and to be ordinarily reserved for an officer of the Royal Indian Marine. In accordance with this ruling Lieutenant E. W. Petley, R.N., vacated the appointment on the forenoon of the 1st of April 1893. The good services rendered to the Bengal Government by Lieutenant E. W. Petley during the five years he held the appointment were acknowledged by a special Resolution published in the *Calcutta Gazette* of the 5th of April 1893.

By order of the Lieutenant-Governor of Bengal,

C. W. ODLING,

Secretary to the Government of Bengal.

# RESOLUTION ON THE ADMINISTRATION REPORT OF THE HOWRAH BRIDGE FOR 1892-93.

No. 2391 Marine.

GOVERNMENT OF BENGAL—PUBLIC WORKS DEPARTMENT.

*Dated Calcutta, the 13th October 1893.*

## RESOLUTION.

READ—

The Administration Report of the Howrah Bridge for 1892-93.

THE following statement shows the actual receipts and expenditure of the bridge during the year under review, as compared with the previous nine years:—

PARTICULARS.	1892-93.	1891-92.	1890-91.	1889-90.	1888-89.	1887-88.	1886-87.	1885-86.	1884-85.	1883-84.
RECEIPTS.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts from railway traffic	1,23,678	1,29,310	1,28,954	1,19,727	1,29,985	2,91,638	4,02,495	3,53,210	2,69,125	3,79,501
Ditto local do.	...	...	...	...	94,000	1,27,853	1,40,740	1,46,087	1,28,301	1,22,200
Ditto hire of steamer	25	50	164	57	906	410	489	470	446	937
Receipts from hire of steamer	10	250	...	14	27	132	...	...	100	...
<i>Howrah or Buckland</i>	...	...	...	...	...	...	...	...	...	...
Interest on Government securities	24,404	28,753	32,339	32,182	20,566	24,056	42,088	20,763	22,174	22,174
Proportion of rent of Head Office	...	...	448	582	487	528	528	523	527	574
Miscellaneous	366	122	253	532	2,090	512	737	640	814	221
Proportion of earnings of steam-tug <i>Hetty</i>	12,537	5,378	13,698	12,770	8,615	13,638	9,303	11,102	17,372	11,088
Rent of Bridge Approach land	1,453	3,332	3,177	2,962	3,644	2,603	1,876	2,611	1,557	...
Total	1,62,499	1,67,195	1,79,021	1,68,826	2,64,716	4,60,269	5,98,256	5,30,012	4,60,416	5,30,605
Deficit	...	537	...	...	...	...	...	...	...	...
	1,62,499	1,67,732	1,79,024	1,68,826	2,64,716	4,60,269	5,98,256	5,30,012	4,60,416	5,30,605
EXPENDITURE.										
Interest on loans	7,455	7,509	7,561	7,611	7,659	9,496	43,980	79,899	32,082	64,984
Proportion of salaries—Control	13,098	11,775	13,041	12,323	10,200	10,308	12,896	12,734	11,459	12,018
Salaries	32,826	31,913	32,975	32,791	32,501	32,383	32,310	32,264	31,764	31,584
Working expenses	23,432	12,734	12,826	20,427	43,798	18,020	14,145	16,872	14,270	13,956
Repairs	46,998	51,708	25,393	39,983	43,617	38,962	50,673	29,213	47,500	32,187
Ferry steamer <i>Buckland</i>	10,488	18,059	18,400	16,645	10,751	19,870	15,347	15,464	16,379	13,646
Proportion of municipal taxes of officer's quarters, storeyard, and police quarters and repairs to buildings	5,946	12,371	11,468	3,542	7,552	5,171	3,615	9,960	10,890	8,141
Miscellaneous	...	...	...	...	...	...	...	...	112	1,322
Proportion of establishment, &c., of steam-tug <i>Hetty</i>	9,592	15,097	9,423	11,074	10,560	11,052	12,231	10,932	10,967	11,384
Renewals	...	6,560	16,016	...	25,691	7,840	2,415	7,008	14,623	2,499
Proportion of salary of Traffic Manager	...	...	...	375	4,500	4,500	...	...	...	...
Total	1,55,675	1,67,732	1,47,046	1,41,771	2,04,241	1,52,697	1,87,021	2,11,926	1,90,346	1,91,721
Net revenue	6,924	...	31,958	27,055	60,475	3,07,662	4,11,235	3,18,087	2,70,070	3,44,974
GRAND TOTAL	1,62,499	1,67,732	1,79,024	1,68,826	2,64,716	4,60,269	5,98,256	5,30,012	4,60,416	5,36,695

2. The income during the year amounted to Rs. 1,62,499, being less than that of the previous year by Rs. 4,696. Railway traffic exhibited a falling off of Rs. 5,632, and under the head of interest there was a further decrease of Rs. 4,319 on account of the loan without interest of rupees two lakhs to the Corporation of Calcutta from the reserve fund. The loan, alluded to above, was sanctioned in connection with the construction of the Harrison Road, and is repayable within three years. On the other hand, the earnings of the steam-tug *Hetty*, which was at work throughout the year, showed an increase of Rs. 7,179 over the receipts of the preceding year.

3. The expenditure amounted to Rs. 1,55,675, or a decrease of Rs. 12,057 over that of 1891-92. The wearing surface of the bridge was maintained in thorough order, a large quantity of planks and battens having been renewed. The wood used for the wearing surface is specially imported by the Commissioners from Johor, near Singapore. The footpaths on both sides were also renewed. The superstructure, timbers, fenders, and sheathings of pontoons were renewed as found necessary. All the other works which were found to be necessary to keep the bridge in thorough order, were carried out.

4. In addition to the ordinary receipts, the following sum, which may be classed as "extraordinary," was received:—



	Rs.
Interest on Government securities of pontoon renewal fund ...	2,000
The corresponding expenditure under the same head was—	
Sinking fund or loan ...	3,401

4. This is the first complete year the bridge has been lighted by electricity, and it is observed that the actual expenditure has amounted to Rs. 12,386, against an estimate of Rs. 4,660. No explanation of the heavy increase has been given. A detail of this expenditure should be supplied so as to show whether any abnormal expenses have helped to swell this charge.

5. The bridge was opened for the passage of vessels on 148 occasions during the year, of which 103 were on the ordinary fixed days of the week and 45 were Sundays on special application. The number and description of the vessels which passed through the bridge on these occasions are given in the table below:—

	1892-93.	1891-92	1890-91.	1889-90.	1888-89.	1887-88.	1886-87.	1885-86.	1884-85.	1883-84.
Sea-going vessels ...	309	254	414	362	389	231	295	308	403	469
Inland steamers and flats ...	1,129	1,400	1,059	911	878	809	818	1,102	944	731
Steam-tugs ...	153	360	549	491	466	397	387	406	342	301
Port Commissioners' vessels ...	183	66	92	53	46	46	55	69	56	58
Government steamers and flats ...	...	...	3	16	...	6	10	6	10	...
Total	2,074		2,110	1,863			1,595	1,940	1,755	1,621

6. No sea-going vessels collided with the bridge, but there were 52 collisions of other vessels, against 95 during the previous year. This is the lowest number on record.

By order of the Lieutenant-Governor of Bengal,

C. W. ODLING,

*Secretary to the Govt. of Bengal.*

#### DISTRICT ROAD FUND.

No. 5978R.C.

GOVERNMENT OF BENGAL—PUBLIC WORKS DEPARTMENT.

Road Cess.

*Dated Calcutta, the 12th October 1893.*

#### RESOLUTION.

Receipts and expenditure of the several District Road Committees in Bengal for the 1st quarter of 1893-94.

#### READ—

Letter from the Accountant-General, Bengal, No. 543L.F., dated 5th October 1893, submitting an abstract of receipts and expenditure of the several District Road Committees in Bengal for the quarter ending 30th June 1893.

**RESOLUTION.**—The Lieutenant-Governor directs that the accounts of the receipts and expenditure of the several District Road Committees in Bengal for the 1st quarter of the year 1893-94 be published in the *Calcutta Gazette* and circulated to the officers concerned.

**ORDER.**—Ordered that a copy of this Resolution, together with a copy of the abstract of receipts and expenditure, be published in the Supplement to the *Calcutta Gazette*.

Ordered also that a copy of this Resolution and of the abstract referred to, be forwarded to the Commissioners of the Rajshahi, Bhagalpur, Chittagong, and Chota Nagpur Divisions; to the Superintending Engineers of the Northern and Western Circles; to the Inspector of Works, Eastern Circle; and to the Financial Department of this Government, for information.

By order of the Lieutenant-Governor of Bengal,

F. J. JOHNSTONE,

*Secretary to the Government of Bengal.*

DISTRICT

Statement of Receipts and Expenditure of the several District Road

RECE

DISTRICTS.	Balance in Treasury on 1st April 1893.	PROVINCIAL RATES.				Interest on arrears of road- cess collections.	PUBLIC WORKS.			IRRI- GATION.	MISCEI-		
		Cess on lands.	Cess on mines and railways.	One per cent. road cess.	Total.		Road tolls.	Ferry tolls.	Total.		Canal tolls.	Rent of serais and staging- bungalows.	Fees, fines and for- feitures.	Miscellane- ous.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs.	Rs. A. P.	Rs. A. P.	Rs.	Rs.	Rs.	Rs.	Rs. A. P.	Rs. A. P.	Rs. A. P.
CESS DISTRICTS.	Darjeeling ...	10,316 3 9	1,879 13 0	36 10 6	...	1,907 7 6	0 4 0	.....	.....	.....	.....	.....	.....
	Hazaribagh ...	36,972 8 11	6,119 15 0	...	...	6,119 15 0	24 6 11	.....	.....	.....	44 0 0	20 8 0	0 6 9
	Lohardaga ...	20,914 0 6	4,372 2 8	0 3 0	...	4,372 5 8	1 5 3	.....	.....	.....	.....	36 15 0	.....
	Mauddham ...	3,848 14 4	7,796 7 3	219 2 0	...	8,015 9 3	43 9 7	.....	.....	.....	708 11 3	.....	.....
	Palamau ...	15,063 2 11	4,906 2 8	8 14 6	...	4,915 1 2	17 9 7	.....	.....	.....	2 0 0	92 9 2	12 11 10
Total	87,114 14 5	25,065 8 7	264 14 0	.....	25,330 6 7	83 4 1	.....	.....	.....	.....	754 11 3	299 0 2	13 2 7
NON-CESS DISTRICTS.	Chittawong Hill Tracts	24,142 13 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Sonthal Par- gasas	30,367 6 3	.....	32 8 0	.....	32 8 0	.....	.....	.....	.....	115 0 0	76 14 0	66 15 0
	Singbhum	5,313 3 1	.....	.....	.....	.....	.....	.....	.....	.....	1 0 0	76 14 0	1 15 0
	Total	59,823 6 4	.....	32 8 0	.....	32 8 0	.....	.....	.....	.....	116 0 0	76 14 0	68 14 0
GRAND TOTAL	1,46,938 4 9	25,065 8 7	297 6 0	.....	25,363 14 7	83 4 1	.....	.....	.....	.....	870 11 3	285 14 2	82 0

EXP

DISTRICTS.	REFUNDS.			PROVINCIAL RATES.	ADMINISTRATION.			STATIONERY.	PUBLIC WORKS.						Pub
	Cess	Other receipts.	Total.		Establishment and contingencies of Committee's office.	Percentage cess of total amount for offices of account and control.	Total.		Original works.	Repairs.	Establishment.	Tools and plant.	Tell and ferry establishment and contingencies.	Establishment of District Superintendent of	
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Cess Districts.															
Darjeeling	...	...	...	291 11 0	220 6 0	...	220 6 0	...	...	3,942 7 5	105 0 0	...	...	...	...
Hazaribagh	...	...	...	247 13 5	276 13 0	...	276 13 0	8 14 0	...	1,790 14 4	1,935 5 0	13 12 0	...	...	...
Lohardaga	...	251 12 6	251 12 6	349 4 9	124 2 0	...	124 2 0	1 4 6	584 14 0	847 14 7	1,810 12 0	1 8 0	...	...	...
Mauddham	...	...	...	1,531 11 1	359 6 6	...	359 6 6	11 12 6	472 0 2	5,605 11 2	1,930 3 10	48 12 0	...	...	...
Palamau	...	...	...	192 7 0	50 11 0	...	50 11 0	190 9 6	10 15 0	10 8 0	532 14 5	...	...	...	...
Total	...	251 12 6	251 12 6	2,612 15 3	1,031 6 6	...	1,031 6 6	178 8 6	1,067 13 2	12,257 7 6	6,314 3 3	64 0 0	...	...	...
Non-Cess Districts.															
Chittagong Hill Tracts	...	...	...	...	...	...	...	47 3 3	...	2,156 6 1	1,622 10 1	...	...	...	...
Sonthal Parganas	...	...	...	...	259 8 0	...	259 8 0	...	120 14 0	666 8 3	1,678 0 0	-19 3 0	...	...	...
Singbhum	...	48 8 0	48 8 0	...	162 7 3	...	162 7 3	35 1 6	1,132 0 6	119 0 4	608 11 0	107 12 0	...	...	...
Total	...	48 8 0	48 8 0	...	421 15 3	...	421 15 3	82 5 2	1,252 14 6	2,841 14 8	3,800 5 1	88 9 0	...	...	...
GRAND TOTAL	...	300 4 0	300 4 0	2,612 15 3	1,453 5 9	...	1,453 5 9	260 13 8	2,320 11 8	15,099 0 2	10,163 8 4	172 9 0	...	...	...

FORT WILLIAM,

The 20th September 1893.

## ROAD FUND.

Committees for the Quarter ending 30th June 1893.

PTS.

ANEUOUS.	Grant from Government.	SUSPENSE ACCOUNT.			Provident Fund receipts.	Savings Bank investment withdrawals.	Total receipts.	Balance of imprest in hands of Engineers and others decreased.	Balance of uncashed cheques increased.	Total receipts, including balance.	Outlay.	Balance in Treasury on 30th June 1893.
		Advance.	Deposit.	Total.								
Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
...	1,840 9 7	3,835 7 5	...	3,835 7 5	...	...	7,089 13 3	...	...	17,406 1 0	7,503 2 4	9,842 14 8
64 14 9	250 5 7	228 1 0	800 0 0	1,028 1 0	17 13 0	...	7,531 8 3	...	...	44,504 1 2	17,410 2 10	27,084 14 4
95 15 0	...	100 12 0	7 0 0	107 12 0	...	...	4,577 5 11	...	...	25,491 6 5	9,817 12 5	16,073 10 0
704 11 3	13,000 0 0	160 1 3	5 0 0	165 1 3	160 5 0	...	22,093 4 1	...	...	25,042 2 8	10,338 13 7	15,003 5 1
107 5 0	310 0 0	111 0 0	250 0 0	361 0 0	...	...	5,700 15 9	...	...	20,754 2 8	1,380 0 11	19,384 1 9
976 14 0	14,926 15 2	4,435 5 8	1,062 0 0	5,497 5 8	178 2 0	...	46,022 15 0	...	...	1,34,107 13 11	40,719 0 1	87,388 13 10
...	...	...	...	...	...	...	...	...	...	...	...	...
...	21,544 0 0	...	...	...	...	...	24,581 0 0	...	...	49,726 13 0	10,064 14 6	37,761 14 6
181 15 0	48,530 4 0	67 0 0	...	67 0 0	...	...	48,779 3 0	...	...	70,146 9 3	13,365 14 8	65,780 19 5
79 13 0	10,000 0 0	...	26 15 8	26 15 8	57 10 0	...	10,194 15 2	...	...	15,510 2 3	3,215 3 7	12,294 14 5
261 12 0	83,114 4 0	67 0 0	26 15 8	93 15 8	57 10 6	...	83,560 2 2	...	...	1,43,983 8 6	27,546 0 9	1,15,837 7 5
1,278 10 0	99,041 3 2	4,502 5 8	1,088 15 8	5,591 5 4	235 12 0	...	1,30,557 1 8	...	...	2,77,401 6 5	74,265 0 10	2,03,236 5 5

## DITURE.

WORKS.	Total.	Canal & establishment and contingencies.	Staging, bungalows, establishment and contingencies.	MISCELLANEOUS.			Total.	Contribution to Provincial Government.	SUSPENSE ACCOUNT.			Provident Fund withdrawals.	Savings Bank investment deposits.	Total expenditure.	Balance of imprest in hands of Engineers and others increased.	Balance of uncashed cheques decreased.	Total outlay.
				Staging, bungalows, petty construction and repairs.	Miscellaneous.	Provident Fund contributions.			Advance.	Deposit.	Total.						
Rs. A. P.	Rs.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs.	Rs. A. P.	Rs. A. P.	Rs.	Rs. A. P.	Rs. A.
4,047 7 5	...	...	...	15 13 6	...	5 15 0	48 12 0	...	1,545 0 0	...	1,345 0 0	...	...	5,904 8 5	...	1,658 9 11	7,563 2
3,739 15 4	...	...	...	48 14 6	65 14 0	...	122 12 6	...	475 15 0	...	475 15 0	...	17 13 0	4,816 0 3	50 0 0	12,653 2 7	17,419 2
3,245 0 7	...	...	...	...	...	53 7 0	353 13 10	...	...	791 0 0	791 0 0	...	...	4,888 4 10	50 0 0	4,479 7 7	9,017 12
8,110 11 2	...	...	...	500 6 10	...	...	61 8 1	...	150 0 0	50 0 0	200 0 0	...	160 5 0	10,933 12 1	5 1 6	...	10,938 13
554 5 5	...	...	...	...	10 8 1	...	...	...	81 0 0	167 0 0	248 0 0	...	...	1,263 9 0	50 0 0	68 7 11	1,380 0
19,703 7 11	...	87 0 0	685 2 10	76 6 1	59 6 0	796 14 11	...	...	2,051 15 0	1,011 0 0	3,062 15 0	...	178 2 0	27,806 2 7	155 1 6	18,757 12 0	46,719 0
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3,779 0 2	...	...	...	...	...	...	...	...	2,580 15 2	165 0 0	2,745 15 2	...	...	3,586 3 10	...	7,138 10 5	10,964 1
2,246 3 3	...	...	...	...	9 15 9	19 8 6	111 7 3	...	778 9 3	...	772 9 3	...	67 10 6	5,251 10 5	...	8,114 4 8	13,865 1
2,927 7 10	...	82 4 0	...	...	...	...	...	...	...	...	...	...	...	3,215 9 7	...	...	3,215
8,062 11 3	...	82 4 0	...	...	9 15 9	19 8 6	111 7 3	...	3,353 8 5	165 0 0	3,518 8 5	...	57 10 6	12,293 1 10	...	15,282 14 11	27,546
27,758 8 2	...	100 4 0	565 9 10	85 5 10	78 9 6	808 6 2	...	...	5,405 7 5	1,176 0 0	6,581 7 5	...	235 12 0	40,000 4 5	155 1 6	34,010 10 11	74,265

O. T. BARROW,  
Accountant-General, Bengal.

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 14th October, 1893.

No.	District and date of • return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL.			
BURDWAN DIV.	1 Burdwan Oct. 14, '93	3.08	Weather—seasonable. Prospects excellent as regards <i>aman</i> ; fair as regards <i>aus</i> . Fodder and water sufficient. Prices of common rice:—
	Kalna ...	1.43	Srs.
	Katwa ...	1.12	Burdwan ... 10 to 13
	Raniganj ...	0.07	Kalna ... 9 to 13
			Katwa ... 12½
			Raniganj ... 12½
			} per rupee.
	2 Bankura „ 14, '93	0.89	Weather—seasonable. Harvesting of <i>aus</i> nearly finished. <i>Aman</i> plants doing well. Supply of fodder and water sufficient. Common rice selling at 13½ seers per rupee at Bankura and 12½ seers at Vishnupur.
	3 Birbhum „ 14, '93	2.59	Showers of rain this week. Paddy crops in ear; they look splendid.
	Rampur Hat ...	0.34	Weather has cooled. Rice sells from 10 to 14½ seers per rupee.
	4 Midnapore „ 14, '93	0.21	Weather—bright and hot, sometimes cloudy. Prospects of <i>aman</i> crop good. No cattle-disease reported except from Garabeta. Fodder and water sufficient. Prices of common rice:—
		Srs.	
		Sadar ... 12	
		Contai ... 13	
		Tamluk ... 15	
		Ghatal ... 12	
		} per rupee.	
5 Hooghly „ 14, '93	5.10	Weather—hot, rainy. <i>Aus</i> rice almost harvested. <i>Aman</i> rice doing well everywhere except in thana Khanakul, where damage is reported to have been caused by floods. Fodder and drinking water sufficient. Prices of common rice:—	
Serampore ...	3.78	Srs.	
Jahanabad ...	2.74	Sadar ... 11	
		Serampore ... 10 to 11½	
		Jahanabad ... 11 to 12½	
		} per rupee.	
6 Howrah „ 12, '93	3.92	Weather—wet and stormy. Jute is being cut and steeped. <i>Aus</i> harvest finished. <i>Aman</i> paddy doing very well. Price of rice 10 seers per rupee.	
Ulubaria ...	3.03	Fodder and water sufficient.	
7 24-Parganas „ 14, '93	4.28	Weather—seasonable. Prospects of crops fair in the north, but poor in the southern part of the district, especially in the thana of Bankipur. Cultivation completed. Prices of common rice:—	
		Srs.	
		Sadar ... 9 to 11½	
		Diamond Harbour ... 10½	
		Barasat ... 11	
		} per rupee.	
PRESIDENCY DIV.	8 Nadia „ 14, '93	2.58	Weather—hot and damp. Prospects of crops unchanged. Lands being prepared and sown with winter crops. Fodder and water plentiful.
	Kushtia ...	0.35	
	Meherpur ...	4.13	
	Chumunga ...	2.25	
	Ranaghat ...	1.70	
	9 Khulna „ 14, '93	1.54	Weather—hot with showers of rain. <i>Aman</i> promising except on low lands where floods have prevented transplantation. Lands being prepared for <i>rabi</i> crops. Tapping of palm trees beginning. Fodder sufficient.
	Pagerhat ...	Nil	
	Satkhira ...	2.8	
	10 Jessore „ 14, '93	4.06	Weather—seasonable. Prospects of <i>aman</i> fair. Cultivation for winter crops and sowings going on. Rivers going down. No cattle-disease. Fodder and water sufficient. Price of rice stationary.
	Jhenida ...	1.93	
	Magura ...	0.78	
Narail ...	0.81		
Banenson ...	1.75		
11 Murshidabad „ 14, '93	1.28	Weather—seasonable. Winter rice and sugarcane doing well. Sowing of <i>rabi</i> crops and <i>kalai</i> commenced. Fodder sufficient for cattle. Common rice sells at 11 seers per rupee.	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL—conold.</b>			
CHITTAGONG DIV.	12 Chittagong	...	Report not received.
	13 Noakhali	...	Report not received.
	14 Tippera Oct. 14, '93	3.84	Weather—seasonable. Transplantation and sowing of <i>aman</i> paddy being vigorously pushed on as the water is subsiding rapidly. Prospect of crops has on the whole improved in the whole district. Price of rice and other articles of food is gradually falling.
	15 Chittagong Hill Tracts. „ 13, '93	2.16	Weather—seasonable. Foggy in the early morning. Prospect of plough-paddy good. Vegetables progressing. No cattle-disease reported. Common rice being sold at 8 seers per rupee.
DACCA DIV.	16 Dacca „ 14, '93	0.80	Weather—hot with occasional rain. Harvesting of jute nearly completed and that of paddy commenced in some places. Prospect of <i>aman</i> favourable. <i>Rawa</i> and <i>shail</i> paddy being sown. Common rice selling from 7 to 10 seers per rupee. Fodder not sufficiently available. No cattle-disease.
	17 Faridpur „ 14, '93	3.77	Weather—fine with occasional showers. Weather favourable for standing crops.
	Goulundo ...	2.11	Rivers falling. Rice 9 to 11 seers per rupee. Still some cattle-disease at Palong.
	Madaripur ...	1.59	
	18 Backergunge „ 14, '93	2.69	Weather—cloudy and fine with occasional slight rain. Prospects of crops remain unaltered. Ordinary rice selling from 7 to 10 seers per rupee. Fodder and water sufficient.
	19 Mymensingh „ 14, '93	0.58	Weather—seasonable. Prospects of standing crops good. Common rice selling at 8 to 9 seers per rupee. Condition of cattle good. Supply of fodder sufficient except in the Kishorganj subdivision.
	20 Dinajpur „ 14, '93	0.75	Weather—cloudy and rainy. Prospects favourable all over the district. <i>Bhadai</i> rice selling at Sadar from 13 to 14 seers per rupee and <i>haimanti</i> rice 12 seers per rupee. Price of rice at Thakurgaon stationary. Condition of cattle good. Fodder and drinking water sufficient.
	Thakurgaon ...	1.48	
	21 Rajshahi „ 14, '93	Not reported	Weather—seasonable. Prospects of crops good almost everywhere; in some places excellent. Yesterday's (13th) rain will do much good. No cattle-disease. Water and fodder-supply ample. Rice selling from 10 to 12 seers per rupee.
	Nator ...	1.17	
	Naugaon ...	3.10	
	22 Rangpur „ 14, '93	0.50	Weather—cloudy. Jute steeping in progress. Lands under preparation for tobacco and other cold-weather crops. Prospects of <i>aman</i> very favourable. Price of common rice 8½ to 10 seers per rupee.
RAJSHAH DIV.	Gaibanda ...	2.01	
	Nilphamari ...	0.52	
	Kurigaon ...	0.17	
	23 Bogra „ 14, '93	1.64	Weather—fine with occasional heavy showers. Prospects of <i>aman</i> good. Lands are being cultivated for mustard. Common rice sells at 10 to 11 seers per rupee. Fodder and water sufficient.
	Sherpur ...	4.62	
	Naukhila ...	3.97	
	24 Pabna „ 14, '93	0.52	Weather—cloudy and foggy with hot day and cool night. State of standing crops fair. <i>Rabi</i> crops being sown. Rice selling at Rs. 4-12 per maund in the Sirajganj subdivision and 9½ seers per rupee in the Sadar subdivision. Fodder and water-supply ample.
	25 Darjeeling „ 14, '93	Nil	Weather—bright; cool. In the hills:— <i>Bhutta</i> has been harvested. <i>Haimanti dhan</i> , <i>bara masua</i> , <i>kala</i> , <i>phaphur</i> , and <i>torca</i> progressing favourably. Potatoes being planted. In the Terai:—Jute and <i>bhadai</i> harvested. Prospects of <i>aghani</i> very favourable. Prices of coarse rice:—
	Siliguri ...	0.12	Srs.
			Hills ... 9 }
			Terai ... 11 } per rupee.
	26 Jalpaiguri „ 14, '93	0.14	Weather—seasonable; nights getting cool. Steeping of jute going on. Prospects of <i>aman</i> good. Price of rice stationary. Fodder and water sufficient.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR.</b>			
BHAGALPUR DIV.	27 Monghyr Oct. 14, '98	Nil	Weather—hot and clear. State of standing crops good. <i>Kurthi</i> being sown. Indigo and sugarcane doing well. Lands being prepared for <i>rabi</i> crops. Fodder and water sufficient. Small-pox among cattle reported from Nawadib, Sekundra, Ballia, and Kharakpur. Prices of common rice :— Srs. Sadar ... 11½ to 18 Begusarai ... 12 Jamui ... 12½ } per rupee.
	Begusarai ...	Nil	
	Jamui ...	0.08	
	28 Bhagalpur „ 14, '98	1.81	Weather—hot in day, cool at night. Prospect of winter rice good. <i>Rabi</i> and indigo are being sown. Cattle-disease reported to be prevailing in Amarpur.
	Banka ...	Nil	
	Madhipura ...	Nil	
	Supaul ...	Nil	Weather—cool in the mornings, hot during the day. Slight fog in the early morning. Prospects of <i>aghani</i> continue good. Lands being prepared for <i>rabi</i> everywhere. Fodder and water sufficient. No cattle-disease. Prices of coarse rice :— Srs. Sadar ... 12 to 18 Kishanganj ... 12 to 13 Araria ... 18 } per rupee.
	29 Purnea „ 14, '98	0.46	
	Kishanganj ...	0.08	
	Araria ...	Nil	
	30 Malda „ 14, '98	1.97	
	31 Sonthal Parganas „ 14, '98	3.33	Weather—cool at night, but hot in the day with occasional specks of cloud. All standing crops continue to do well. Linseed, mustard and gram being sown. Lands being prepared for wheat, barley and other grain. Fodder and water sufficient. Price of rice stationary.
	Deoghur ...	0.86	
	Godda ...	0.47	
	Jamtara ...	1.77	
	Pakur ...	1.37	
	Rajmahal ...	0.22	
PATNA DIVISION.	32 Patna „ 14, '98	Nil	Weather—hot but getting cooler slowly. Prospects of rice continue excellent. Potatoes and tobacco doing well. No rain has fallen since the beginning of the month, and it is wanted everywhere. Prices of common rice :— Srs. Sadar ... 15 Barh ... 13 Bihar ... 17 Dinapore ... 13 } per rupee.
	33 Gaya „ 14, '98	Nil	
	Nawada ...	Nil	
	Jahanabad ...	Nil	Weather—cloudy, humid and unseasonably warm. Prospects of standing crops very good, but some rain would be very beneficial. <i>Rabi</i> lands being prepared and sowings going on everywhere. Prices of rice :— Srs. Gaya ... 14 Jahanabad ... 14 Aurangabad ... 14½ Nawada ... 16 } per rupee.
	Aurangabad ...	Nil	
	34 Shahabad „ 14, '98	Nil	
	Buxar ...	Nil	Weather—cloudy with bursts of sunshine. Crops very promising indeed. Paddy being largely irrigated. Ploughing for <i>rabi</i> going on. Rain would be very welcome.
	Blabhuu ...	Nil	
	Sasuram ...	Nil	
	35 Darbhanga „ 14, '98	Nil	Weather—days hot and bright; nights getting cool. Prospects of rice continue favourable. The break in the rains has facilitated the planting of tobacco and <i>alua</i> , as also the preparation of lands for <i>rabi</i> sowings. Prices remain steady. Fodder for cattle sufficient.
	36 Muzaffarpur „ 14, '98	Nil	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.		
BIHAR—conold.					
PATNA DIVISION—conold.	37 Saran Oct. 14, '93	Nil	Days hot. Clouds about. Rain would be beneficial. Prospects of crops good. Fodder and water plentiful. Prices of common rice :— <div style="display: flex; justify-content: flex-end; align-items: center;"><div style="display: flex; flex-direction: column; align-items: center;"><div>Srs. c.</div><div>15 0</div><div>15 8</div><div>16 9</div></div><div style="margin-left: 10px;">} per rupee.</div></div>		
	Siwan ...	Nil			
	Gopalganj ...	Nil			
38 Champaran „ 14, '93	Nil	Weather—hot during day, cool at night. Prospects of winter rice crop excellent. Prices stationary. Fodder and water sufficient.			
ORISSA.					
ORISSA DIV.	39 Cuttack „ 14, '93	Nil	No rain. Weather warm. Harvesting of late <i>biali</i> in progress. <i>Sarad</i> growing. Want of rain beginning to be felt in places. Fodder sufficient. Average selling price of common rice :— <div style="display: flex; justify-content: flex-end; align-items: center;"><div style="display: flex; flex-direction: column; align-items: center;"><div>Srs. c. Srs. c.</div><div>10 8 to 13 2</div><div>13 2 to 17 6</div><div>15 0 to 22 0</div><div>15 12</div></div><div style="margin-left: 10px;">} per rupee.</div></div>		
	40 Puri „ 12, '93	0.60		Weather—seasonable. <i>Sarad</i> being weeded. <i>Laghu</i> in ear. Miscellaneous crops doing well; general prospects good. Prices of common rice :— <div style="display: flex; justify-content: flex-end; align-items: center;"><div style="display: flex; flex-direction: column; align-items: center;"><div>Srs. c. Srs. c.</div><div>14 7 to 15 12</div><div>11 0 to 15 12</div></div><div style="margin-left: 10px;">} per rupee.</div></div>	
	Khurda ...	0.79			
	41 Balasore „ 14, '93	0.16			Weather—hot with occasional showers. Crops generally doing well. Water and fodder sufficient. Prices of rice :— <div style="display: flex; justify-content: flex-end; align-items: center;"><div style="display: flex; flex-direction: column; align-items: center;"><div>Srs.</div><div>16</div><div>20</div></div><div style="margin-left: 10px;">} per rupee.</div></div>
	CHOTA NAGPUR.				
South-West Frontier Agency.					
CHOTA NAGPUR DIV.	42 Hazaribagh Oct. 14, '93	1.56	Weather—cloudy and unsettled. The recent rainfall has greatly improved prospects of winter rice, and full crops are expected wherever it has extended. Sugar cane doing well. <i>Rabi</i> crops and oil-seeds being sown. Fodder and water plentiful. Prices stationary.		
	Giridi ...	0.13			
	43 Lohardaga „ 14, '93	1.24		Weather—seasonable. <i>Marna</i> being reaped. Prospects of winter rice continue good. Common rice selling at 16 seers per rupee. Fodder and water plentiful.	
	44 Palamanu „ 13, '93	Nil		Weather—seasonable: getting cooler. All crops on the ground doing well. <i>Rabi</i> sowings in progress. <i>Bhadai</i> being still harvested. Cattle-disease reported from parts of the district. Fodder and water ample. Prices stationary.	
	45 Singhbhum „ 14, '93	Nil		Weather—very cloudy and threatening for the past four or five days, and though there has been no rain at Chaibassa, it has rained all round. Condition of winter rice crop continues to be good everywhere; a sixteen-anna outturn is expected. Price of common rice ranges from 12 to 14 seers per rupee. Cattle-disease in a mild form reported from Bharagora, Chakradharpur, and Kolhan stations.	
46 Manbhum „ 14, '93	1.12	Weather—stormy and rainy towards latter part of week. Rain will do good to standing crops. Prices stationary.			
Gobindpur ...	0.22				

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 17th October, 1893.

M. FINUCANE,  
Offg. Secy. to the Govt. of Bengal.

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.											
			AIR PRESSURE.			WIND.		TEMPERATURE.						
			Mean barometric height, S. A. M. reduced to 32°.	Mean reduced to sea-level and corrected for gravity, lat. 45°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.
ORISSA.	Puri	Puri	29.709	29.754	—	Calm	165	80.7	8 to 10 Oct.	78.1	11th Oct.	80.7	80.1	84.9
		Gopalpore	29.806	29.700	—0.083	Nly	188	80.7	8 to 10	76.1	14th	80.1	77.0	83.0
		False Point	29.808	29.771	—0.032	SWly	175	80.0	10th	76.1	11th	88.3	77.9	83.1
	Cuttack	Cuttack	29.737	29.759	—0.022	Variable		93.2	10th	77.9	14th	91.4	78.6	85.0
	Balasore	Balasore	29.789	29.772	—0.016	Variable	67	90.4	10 & 11	75.3	14th	89.3	70.8	83.1
SOUTH-WEST BENGAL.	Midnapore	Midnapore	29.093	29.788	—0.049	Variable	36	93.3	11th	75.1	14th	90.3	76.7	83.5
		Calcutta	29.819	29.786	—0.044	SWly	41	88.1	11, 13 & 14.	75.2	12th	87.1	76.9	82.0
	24-Paraganas	Saugor Island	29.807	29.770	—0.048	SWly	192	80.2	13 & 14	77.0	8th	87.9	78.9	83.2
	Howrah	Howrah												
	Nadia	Krishnagar	29.790	29.786	—0.041	SEly	71	89.8	11th	75.7	10, 13 & 14 Oct.	87.7	76.6	83.2
NORTH BENGAL.	Jalpaiguri	Jalpaiguri	29.510	29.790	—0.048	SEly & SWly.	57	80.5	11 & 12	76.4	13 & 14	87.0	77.0	82.5
		Burdwan	?	?	?	Calm	22	90.1	13th	70.2	10th	88.1	76.5	82.3
	Burdwan	Ranganj	29.509	29.794	—0.040	SEly	28	94.7	11th	72.4	14th	93.3	75.8	84.5
	Bankura	Bankura	29.527	29.777	—0.054	Calm	30	91.1	11th	74.1	14th	80.0	76.2	82.7
	Birbhum	Berhampore	29.770	29.790	—0.054	E	46	90.6	11th	76.3	14th	87.7	78.3	83.1
EAST BENGAL.	Pabna	Sirajganj	29.803	29.780	—0.044	Calm	40	80.1	9th	74.7	10 & 14	87.0	76.8	81.7
	Bogra	Bogra	29.770	29.788	—0.036	Calm & N.E.	45	80.2	11th	73.2	9th	86.4	75.1	80.8
	Rajshahi	Rampur Bha.	29.789	29.789	—0.036	SEly	80	90.1	11th	74.3	13 & 14	87.1	76.7	81.9
	Malda	Malda	29.732	29.783	—	Calm	50	91.6	11th	75.5	8, 9, 14	88.2	76.6	82.4
	Dinajpur	Dinajpur	29.726	29.603	—0.039	Variable	30	90.6	11th	75.2	14th	87.8	76.6	82.2
NORTH BENGAL.	Rangpur	Rangpur	29.730	29.807	—0.051	SE	36	89.8	8th	74.7	14th	80.9	76.0	81.4
	Jalpaiguri	Jalpaiguri	29.581	29.820	—0.036	Variable	38	90.4	8th	72.1	11th	88.5	73.9	81.2
	Darjeeling	Darjeeling	23.005	—	—0.052	NE	91	65.1	10th	40.0	14th	63.5	50.8	57.2
	Chittagong	Chittagong	29.784	29.810	—0.032	SEly		87.7	9, 10 & 14	73.1	11th	86.4	74.9	80.7
	Chittagong Hill Tracts	Demagiri						Observations not received.						
SOUTH BENGAL.	Backergunge	Barisal	29.826	29.784	—0.042	Calm		89.8	14th Oct.	70.9	12th	87.6	76.1	81.9
	Noakhali	Noakhali	29.801	29.791	—0.032	SEly		80.5	10, 13 & 14	74.4	11 to 14	85.2	76.5	80.1
	Faridpur	Faridpur	29.814	29.808	—0.043	Calm	40	87.5	8th	75.0	14th	86.1	77.7	81.9
	Dacca	Dacca	29.827	29.797	—0.043	Variable	92	90.1*	13th	75.7*	14th	87.3*	77.5*	82.4*
	Tippera	Comilla	29.826	29.810	—0.021	SEly	68	89.4	9 & 13	72.8	14th	87.1	75.5	81.3
NORTH BENGAL.	Mymensingh	Mymensingh	29.695	29.806	—0.030	ESE	71	87.7	11 & 13	75.1	10 & 14	85.3	76.0	80.7
	Purnea	Purnea	29.709	29.788	—0.057	Calm	14	91.2	8 & 10	75.2	8th	80.6	76.6	83.1
	Bhagalpur	Bhagalpur	29.658	29.772	—0.059	Calm	7	91.7	10 & 11	73.5	12th	90.1	75.1	82.6
	Darbhanga	Darbhanga	29.695	29.787	—0.050	ESE	35	91.0	10, 11 & 12	73.2	13th	89.9	76.1	83.0
	Muzaffarpur	Muzaffarpur	29.653	29.754	—	ESE	27	90.7	9 to 11	72.2	13th	89.7	74.6	83.2
SOUTH BENGAL.	Champanan	Motihari	29.597	29.780	—0.054	Calm	39	91.2	9 & 10	69.8	12 & 13	90.2	72.3	81.3
	Saran	Chapra	29.652	29.780	—0.034	NE	51	92.8	11th	73.1	13th	91.4	75.5	81.5
	Shahabad	Dehri	29.492	29.798	—0.049	SE	91	91.8	11th	71.0	9th	90.8	72.1	81.5
	Gaya	Buxar	29.591	29.785	—0.056	Variable	50	93.0	11 & 12	74.3	12 & 13	82.1	75.1	83.6
	Patna	Arrah	29.638	29.781	—0.049	Variable	18	93.4	9 to 12	72.5	11th	92.5	74.6	83.6
CENTRAL BENGAL.	Gaya	Gaya	29.450	29.788	—0.047	Variable	116	93.4	10 & 12	73.8	8th	91.0	75.6	83.4
	Patna	Bankipore	29.640	29.785	—0.062	Variable	40	91.5	10 & 11	73.2	13th	90.5	76.3	83.4
	Monghyr													
	Sonthal Paraganas	Naya Dumka	29.341	29.789	—0.041	Variable	?	90.1	8, 11	74.8	9th	88.5	75.2	82.0
	Hazaribagh	Hazaribagh	27.825	29.784	—0.050	Nly	106	86.7	10th	68.3	14th	84.3	69.7	77.0
SOUTH BENGAL.	Lohardaga	Ranchi	27.702	29.774	—0.032	Variable	83	85.5	9 & 10	68.9	8th	83.2	70.2	76.7
	Palamu	Daltonganj												
	Singbhum	Chaibasa	29.048	29.765	—0.049	Calm	8	92.4	14th	74.7	13, 14	90.9	75.8	83.4
	Manbhum													
	Sibbargar	Sibbargar	29.571	29.863	—0.031	Variable		88.1	8th	70.4	13 & 14	87.0	72.8	78.4
ARUNACHAL PRADESH.	Goalpara	Dhubri	29.741	29.811	—0.034	Variable	102	87.2	8th	70.8	11 & 12	85.5	72.9	79.2
	Cachar	Silchar	29.772	29.828	—0.032	Calm		90.0	8th	72.3	11th	86.0	74.2	80.4

\* Mean of 5 days. † Mean of 8 days.

**Explanation.—Summary.**—The normal means of air pressure and temperature are the arithmetical average or means of the reading during the same period. The humidity of the atmosphere is expressed as percentage, saturated air being presented by 100. A clear sky is denoted by 0 and an overcast sky by 101. The rainfall the normal mean are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional stations. The district, i.e. from total rainfall at the subdivisional stations in the district sending in returns divided by the number of stations. A rainy day is one of



for the week ending Saturday, the 14th of October 1893.

DISTRICT OBSERVATIONS.															District.	
Variation from normal mean.	Mean 8 A.M. temperature.	Average humidity at 8 A.M.	Average cloud amount at 8 A.M.	Rainfall of week at observing station.	OF WEEK.				RAINFALL.							
					Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Since 1st of month.			Since 16th May 1893.				
									Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.		
-	84.0	81	4.3	0.63		2.17		2.05		3.97			54.53		Puri.	
+0.8	90.9	89	2.7	1.36												
+1.0	83.7	84	6.1	0.53												
+1.8	83.4	78	3.6	0.40		1.43		1.91		2.97			63.20			
+1.7	80.9	91	3.4	0.51		1.53		1.07		3.15			66.85		Outback.	
+2.2	81.2	85	3.6	0.43	1.12	1.30	2.00	1.64	1.68	2.25	-0.30		54.00		Salasore.	
0	81.8	87	5.0	4.28	2.51	1.20	3.71	1.87	8.55	2.38	+1.17	63.08	56.24	+7.44	Midnapore.	
+0.7	81.5	80	9.6	0.66											24 Parganas.	
					2.16	1.06	3.50	1.78	2.91	2.23	+0.68	63.76	53.21	+10.55		
					4.02	1.44	4.00	1.67	4.21	2.37	+1.84	66.04	52.90	+13.14		
+0.6	81.1	88	7.1	2.58	2.97	1.12	3.40	1.64	3.45	2.27	+1.18	58.55	50.87	+7.68	Nadia.	
-0.8	82.4	91	7.1	4.06	1.68	1.12	2.00	1.62	2.11	2.12	-0.01	69.05	58.11	+11.84	Khulna.	
					2.31	1.09	3.80	1.51	2.67	2.11	+0.56	53.50	51.90	+1.60		
-0.0	80.9	87	5.9	3.08	1.82	1.01	2.50	1.35	1.83	2.01	-0.18	54.13	48.71	+5.42	Burdwan.	
+2.7	79.8	87	3.0	1.30											Bankura.	
+0.3	79.8	89	6.6	0.87	1.30	0.84	2.00	1.45	1.30	1.80	-0.50	61.17	54.31	+6.86		
					1.74	0.9	2.00	1.14	1.74	1.91	-0.17	52.07	55.86	-3.10		
+0.9	79.1	95	7.7	1.28	2.30	1.22	2.83	1.35	2.34	2.33	+0.01		53.11		Murshidabad.	
+0.3	78.7	96	5.3	1.21	0.87	1.26	3.50	1.70	0.87	2.28	-1.41	68.15	65.37	+12.76		
-0.3	80.1	91	4.9	1.79		1.24		1.73		2.55			59.31			
+1.3	80.6	92	7.4	1.58	1.72	1.12	2.00	1.57	2.13	2.79	-0.60	62.43	57.87	+4.56	Rajshahi.	
-	81.0	88	5.1	1.07		1.42		1.75		1.45			58.02		Malda.	
-0.6	79.3	90	6.7	1.38	0.92	0.95	1.60	1.29	1.29	1.42	-0.13	67.03	61.54	+5.49	Dinajpur.	
+0.2	78.9	92	6.4	0.59	0.92	1.11	2.25	1.12	0.92	2.01	-1.09	78.40	77.33	+1.05	Rangpur.	
+2.1	78.4	88	6.7	0.24	0.14	0.82	1.00	1.45	0.14	2.72	-2.58	115.80	127.95	-12.85	Jalpaiguri.	
					0.00	0.77	1.50	1.10	0.96	3.40	-2.44	107.23	116.05	-8.42	Kuch Bihar.	
+0.8	50.4	89	7.1	Nil		1.33		2.00		3.97			129.55		Darjeeling.	
-0.6	79.8	90	5.7	2.36		1.79		1.33		3.96			113.90		Cuttack.	
					1.01	1.92	2.00	2.10	4.13	3.80	+0.33	102.59	85.34	+17.25		
+0.6	82.9	86	5.9	2.31		1.42		1.73		2.91			77.89			
-0.7	79.7	92	3.7	2.63		1.74		1.86		3.90			100.80			
+0.8	81.5	85	5.6	0.77		1.41		1.68		2.59			56.74		Faridpur.	
-0.3	81.0	88	5.5	1.41	2.13	1.20	2.75	1.54	2.41	2.34	+0.07	64.04	62.55	+1.49	Daoga.	
-0.6	80.6	89	6.0	3.38		1.40		1.50		3.02			71.65		Tippera.	
+0.7	78.9	93	6.7	0.68		1.65		1.49		3.09			72.43		Mymensingh.	
+2.0	79.8	93	4.0	0.46	0.18	0.84	0.33	1.02	0.21	2.09	-1.88	70.95	70.43	+0.62	Purnea.	
+2.2	80.7	96	4.7	1.81	0.45	1.25	0.45	1.15	0.45	2.27	-1.82		48.62		Bhagalpur.	
+2.0	81.1	84	1.4	Nil	Nil	1.20	0.00	1.07	Nil	2.14	-2.14		47.27		Darbhanga.	
-	81.7	81	0	Nil	Nil	1.30	0.00	0.93	Nil	2.43	-2.48	41.76	45.61	-3.85	Muzaffarpur	
+3.3	79.8	82	0.0	Nil	Nil	1.54	0.00	0.93	Nil	3.19	-3.19		49.42		Champaran.	
+3.6	83.3	71	1.7	Nil	Nil	1.47	0.00	0.97	Nil	3.50	-3.50		44.67		Saran.	
+1.5	81.0	70	2.7	Nil											Shahabad.	
+3.1	81.0	70	2.1	Nil	Nil	0.76	0.00	0.72	Nil	2.17	-2.17		42.18			
+3.4	81.1	81	2.3	Nil												
+2.3	81.2	80	3.6	Nil	Nil	1.11	0.00	0.91	Nil	2.17	-2.17		43.36			
+1.3	83.3	73	3.0	Nil	Nil	1.13	0.00	0.99	Nil	2.14	-2.14		42.65		Gaya.	
					0.30	0.90	0.33	1.02	0.30	1.09	-1.09		45.05	+2.81	Patna.	
+1.6	80.2	84	3.9	3.33	1.56	1.15	2.33	1.37	1.56	2.24	-0.68		54.34		Munshyr.	
+0.8	75.5	82	7.1	1.03		0.94		1.23		1.61			53.69			
+1.4	74.7	87	4.6	1.24		1.11		1.46		2.17			54.33			
						1.07		0.90					45.11			
+3.3	81.0	86	6.9	Nil	Nil	0.81	0.00	1.30	Nil	1.54	-1.54	53.54	53.38	+0.21	Singbhum.	
-1.0	75.5	97	7.4	1.27	0.80	1.04	3.00	1.13	0.83	2.10	-1.21		49.61		Manbhum.	
-1.2	77.0	97	6.7	0.63												
-1.2	76.6	94	9.1	5.23												

for the last ten years. The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater. The numbers denoting cloud amount represents the part of the sky covered the whole sky being denoted by 10. Under the head District observations of the period in question during the past ten years. The means of the district are the numerical average of the rainfall returned received in the which at least a tenth of an inch fall.

## Statement of Rainfall in Bengal for the week ending Saturday (8 a.m.), the 14th of October 1893.

Meteorological Division.	District.	Station.	RAINFALL.							Total number of rainy days.	Rainfall of week.	Average rainfall of week.	Total rainfall since 1st of month.	Average total rainfall from 1st of month.	Total rainfall since 18th May 1893.	Average rainfall from 18th May to date.
			Sunday, 8th.	Monday, 9th.	Tuesday, 10th.	Wednesday, 11th.	Thursday, 12th.	Friday, 13th.	Saturday, 14th.							
ORISSA	Puri	Puri	0.02	0.08	...	0.30	...	0.03	...	1	0.03	2.21	0.63	2.77	55.27	42.02
		Khurda	...	0.02	...	0.15	...	0.11	...	...	...	1.52	...	3.22	50.20	45.41
		Bhanpur	...	0.41	0.42	...	...	...	...	...	...	1.43	...	3.87	43.30	45.41
		False Point	...	0.09	...	0.37	...	...	0.07	1	0.53	3.40	0.53	4.99	55.08	45.41
		Gop	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Satpara	...	0.6	...	0.30	...	...	...	...	...	...	...	...	...	...
		Pipili	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Banpur	...	0.01	0.26	...	0.23	...	...	...	...	...	...	...	...	...
		Kurmal	...	...	0.03	...	...	...	...	...	...	...	...	...	...	...
		Jagattingpur	...	0.10	...	...	...	...	...	...	...	1.89	...	3.59	41.69	45.41
	Outback	Banki	...	...	0.13	0.05	0.33	...	0.21	...	...	1.06	...	2.03	51.31	47.01
		Outback	...	...	...	...	...	0.21	...	...	...	1.24	...	2.68	51.31	47.01
		Kondrapara	...	...	...	...	...	0.57	...	3	1.72	1.60	1.72	2.06	72.81	47.01
		Jajpur	...	...	...	...	...	0.51	...	...	...	1.30	...	3.09	46.97	47.01
		Dharmala	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Salipore	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Pal Lahara	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Nayagarh	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Balasore	...	...	...	...	...	0.21	...	...	...	...	...	...	...	...
		Akhyapada	...	...	...	...	...	...	...	...	...	2.62	...	3.81	49.08	47.45
SOUTH-WEST BENGAL.	Midnapore	Chandbali	...	...	...	0.10	0.14	...	...	...	...	0.90	...	2.61	47.45	47.45
		Bhadrak	...	...	0.76	...	0.23	...	...	...	...	1.34	0.62	3.20	47.45	47.45
		Soro	...	0.25	0.12	...	...	...	...	...	...	1.73	0.16	3.83	53.00	47.45
		Balasore	...	...	0.08	0.02	...	...	0.06	Nil	0.16	1.66	...	2.80	44.79	50.79
		Jellapore	...	...	...	...	...	...	...	...	...	0.78	...	2.54	50.79	54.26
		Baripada	...	...	...	...	...	...	...	...	...	1.57	2.69	2.87	47.18	44.80
		Contal	1.10	...	1.72	0.67	0.06	...	...	3	2.45	0.88	3.00	1.54	60.35	52.52
		Tamluk	...	...	...	...	...	0.10	...	2	1.20	1.15	0.21	2.02	55.67	52.52
		Midnapore	0.31	...	...	...	...	...	...	1	0.21	1.61	0.76	2.57	55.67	52.52
		Ghatol	0.31	...	0.24	...	0.07	...	...	2	0.02	1.71	2.09	?	71.22	53.42
	24-Parganas	Kakrahaty	0.23	...	...	0.65	0.78	...	...	3	1.71	?	?	?	?	?
		Garhbeta	0.58	...	...	...	0.21	...	1.09	3	1.88	?	1.88	?	?	?
		Panskura	...	...	...	...	...	...	...	Nil	Nil	?	0.17	?	?	?
		Dantoon	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Sankor Island	...	0.02	0.50	...	0.12	...	0.02	2	0.80	2.06	2.73	3.58	76.02	59.38
		Diamond Harbour	...	0.46	...	0.22	...	0.13	...	3	0.81	1.02	2.21	2.28	53.31	54.31
		Canning Town	2.71	...	...	...	...	...	...	1	2.71	?	3.54	?	?	?
		Alipore (Observatory)	0.40	...	0.79	0.75	2.12	0.02	0.11	5	4.28	1.06	5.16	2.18	70.85	51.82
		Barakpore	0.35	3.06	0.12	0.27	...	...	0.43	5	4.22	1.10	4.01	2.06	60.04	46.40
		Dum-Jinn	0.84	...	0.11	0.22	...	...	0.78	4	1.05	1.15	3.75	2.04	62.08	48.16
	Howrah	Barasat	0.95	...	...	0.20	1.18	...	0.19	4	2.02	1.31	3.27	2.33	51.82	46.28
		Basirhat	...	0.81	...	1.04	1.25	...	...	5	3.10	1.28	3.10	2.13	70.12	50.00
		Howrah	0.85	...	0.88	1.64	0.11	0.44	...	5	3.92	1.07	4.71	2.20	66.31	47.45
		Mohesra	0.25	0.15	...	...	...	...	...	2	0.60	1.05	1.11	2.25	61.16	49.33
		Udcharia	2.60	0.50	0.16	...	...	...	...	3	2.75	?	3.03	?	55.98	?
		Serampore	0.05	0.51	0.18	...	...	0.01	...	3	3.41	1.13	3.85	2.20	64.49	53.03
		Hooghly	0.02	0.00	0.05	...	0.51	0.06	2.53	5	5.10	1.38	5.22	2.22	53.83	45.22
		Jahansbad	0.59	2.15	...	...	...	0.19	0.63	4	3.66	1.82	3.56	2.71	73.86	52.08
	Nadia	Banaghat	0.75	...	...	...	0.32	2.14	0.39	4	4.10	1.18	4.73	2.24	62.35	44.27
		Krishnagar	1.11	0.79	...	...	0.40	0.28	...	4	2.68	1.39	3.05	2.70	52.60	43.39
		Ohnadanga	...	2.25	...	...	...	0.10	0.19	3	2.54	1.13	2.66	2.38	67.01	47.78
		Mohorpur	0.18	2.70	0.30	...	...	0.05	1.45	4	4.08	0.83	5.63	1.91	58.56	44.71
		Kushtia	...	0.12	...	...	...	0.80	0.63	2	0.95	0.97	1.18	2.07	72.03	50.53
	Khulna	Satkura	...	1.40	...	0.78	...	...	...	2	2.27	1.51	2.80	2.37	63.85	51.38
		Bagerhat	...	...	...	...	...	1.24	...	1	1.24	1.19	1.24	2.21	70.03	56.70
		Khulna	...	...	...	0.58	0.80	...	0.18	3	1.54	0.85	2.29	1.77	66.94	50.78
		Nakipur	...	...	0.41	...	...	...	...	...	...	?	?	?	?	?
		Rampal	...	...	...	...	...	...	...	...	...	?	?	?	?	?
	Jessore	Narail	0.20	0.04	...	...	0.57	0.02	0.65	3	1.48	0.82	1.48	3.51	53.94	43.59
		Jessore	0.56	0.28	...	...	1.65	0.37	1.20	5	4.06	0.91	4.42	1.97	50.22	50.53
		Jhendah	0.82	0.11	...	...	0.18	0.34	...	4	1.45	1.35	2.27	2.37	53.15	40.82
		Magura	...	0.15	0.10	...	...	0.64	0.20	3	0.49	1.35	1.03	2.34	50.03	46.03
		Baugason	0.94	0.70	...	...	...	2.32	0.12	4	4.08	1.02	4.10	2.48	48.18	48.75
	Burdwan	Kalna	0.50	0.02	...	...	0.16	0.75	0.35	4	1.78	1.18	1.78	2.14	57.85	41.44
		Burdwan	2.23	0.77	0.03	...	...	0.06	...	2	3.08	1.25	3.12	1.80	61.33	47.74
		Katwa	0.19	0.44	...	...	...	0.40	...	3	1.12	0.88	1.12	1.06	45.30	44.73
		Baniganj	...	0.07	...	...	...	...	1.23	1	1.30	0.72	1.30	1.90	46.80	46.77
		Hankur	...	0.23	...	...	...	...	...	1	0.28	?	0.28	?	?	?
	Bankura	Bankura	0.41	0.01	...	0.01	0.01	0.41	0.04	2	0.80	1.06	0.80	2.09	60.83	45.39
		Vishnupur	0.65	0.25	...	...	...	...	1.53	3	2.43	0.82	2.43	1.80	53.20	40.37
		Malda	0.08	...	...	...	...	...	0.60	1	0.75	0.49	0.75	1.49	47.08	47.00
		Khutra	...	...	...	...	0.81	...	0.32	2	1.13	1.17	1.13	2.06	72.82	52.58
		Indas	0.55	...	...	...	...	0.08	1.13	3	1.36	?	1.36	?	55.81	?
		Kotalpur	...	1.90	...	...	...	...	0.86	2	3.96	?	3.96	?	64.45	?
		Onda	1.09	...	...	0.19	1.20	2.02	...	4	4.50	?	4.50	?	64.45	?
		Gangajalghati	0.11	...	...	...	...	...	...	1	0.11	?	0.11	?	50.01	?
		Kaipur	...	...	...	...	...	1.90	0.75	2	8.03	?	8.03	?	78.49	?
		Sonamukhi	1.83	...	...	...	...	2.11	0.42	3	4.90	?	4.90	?	53.20	?
NORTH BENGAL.	Birbhum	Sari	0.16	0.08	...	1.52	...	...	0.83	3	3.59	0.90	2.59	1.80	61.22	51.22
		Holampore	...	0.93	...	...	...	...	0.04	1	0.09	0.91	0.99	1.90	42.44	53.34
		Banpur Hat	0.07	...	...	0.21	0.06	...	1.31	2	1.05	1.13	1.05	1.98	52.40	46.47
		Holpur	0.31	...	...	...	...	...	0.30	2	0.61	?	0.61	?	43.46	?
		Murari	...	...	...	0.57	...	...	0.05	2	1.22	?	1.22	?	60.98	?
	Murshidabad	Kandi	0.40	1.56	...	...	0.32	0.35	0.02	5	3.64	1.28	3.90	2.28	40.78	47.36
		Berhampore	0.20	0.29	...	...	...	0.42	0.37	4	1.28	0.96	1.28	2.74	65.59	48.10
		Ladbach	0.30	0.30	...	0.06	...	1.50	0.90	4	2.30	1.24	2.96	2.00	63.24	46.01
		Azimganj	1.60	...	...	...	...	...	3.70	2	5.29	1.87	5.20	2.77	62.26	48.18
		Jangipur	0.16	...	...	...	...	0.05	...	1	0.21	0.77	0.21	1.50	68.04	46.50
		Lalsala	...	...	...	...	...	...	0.50	1	0.50	1.21	0.50	3.21	46.08	46.08
		Akhryganj	0.22	...	...	...	...	4.06	...	2	4.22	?	4.22			

## Statement of Rainfall in Bengal for the week ending Saturday (8 a.m.), the 14th of October 1893—contd.

Climatological Division.	District.	Station.	RAINFALL.							Total number rainy days.	Rainfall of week.	Average rainfall of week.	Total rainfall since 1st of month.	Average total rainfall from 1st of month.	Total rainfall since 16th May 1893.	Average rainfall from 16th May to date.
			Sunday, 8th.	Monday, 9th.	Tuesday, 10th.	Wednesday, 11th.	Thursday, 12th.	Friday, 13th.	Saturday, 14th.							
BENGAL	Maldas	Maldas	1.05	0.11	0.05	...	...	0.15	0.01	8	1.97	1.53	1.97	2.60	56.13	49.16
		Chandohal	...	...	...	...	...	0.10	...	...	...	1.30	...	2.19	...	55.77
		Gajol	1.01	...	...	...	...	0.05	...	...	...	...	...	...	...	...
BENGAL	Dinajpur	Sitganj	1.39	...	...	0.08	...	0.63	...	1	0.05	0.87	2.48	2.70	56.29	54.80
		Mohadebpur	0.05	...	...	...	...	...	...	1	1.99	0.74	1.89	1.61	72.37	51.44
		Churaman	...	...	...	...	...	1.29	...	1	0.76	1.16	0.74	2.86	73.79	55.43
		Raiganj	...	...	...	...	0.76	...	...	2	0.75	0.98	0.75	3.91	61.91	60.86
		Dinajpur	...	0.29	...	...	0.40	...	...	3	1.16	0.92	1.16	1.97	61.86	61.94
		Salurhat	0.23	...	...	...	0.52	...	0.41	...	...	...	...	...	...	...
		Thakurgaon	...	1.48	...	...	...	...	...	...	...	...	...	...	...	...
		Bhawaniganj	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		(Gyabanda)	0.45	1.30	0.16	0.23	...	...	0.45	5	2.49	1.25	2.49	2.98	70.38	58.59
		Rangpur	...	0.20	...	0.24	...	...	...	...	0.50	0.95	0.50	2.55	75.94	71.00
BENGAL		Pirganj	0.14	1.02	...	1.68	0.50	...	...	4	3.84	...	3.84	...	...	...
		Karimganj	0.11	...	...	0.06	...	...	...	1	0.17	1.04	0.17	2.93	89.59	71.15
		Gohindganj	0.08	1.54	...	...	0.11	...	1.10	3	2.83	...	2.83	...	70.80	...
		Bagda	...	0.52	...	...	...	...	...	1	0.52	1.21	0.52	3.17	76.08	72.91
		(Nishphani)	...	0.70	...	0.82	...	...	...	2	1.52	...	1.52	...	63.94	...
		Ulupur	...	1.80	...	1.10	...	...	...	2	2.96	...	2.96	...	...	...
		Sunderganj	...	...	...	...	...	...	...	1	0.14	0.62	0.14	2.73	108.93	113.22
		Jalpaiguri	...	...	...	...	0.14	...	...	1	0.55	...	0.55	...	114.47	...
		Alipor	...	...	...	...	0.55	...	...	1	0.12	...	0.12	...	90.64	...
		Fallaotta	...	0.12	...	...	...	...	...	1	0.12	...	0.12	...	...	...
BENGAL		Debiganj	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Rhagatpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		(Nagrakatta)	3.01	...	0.02	0.19	...	...	...	3	3.82	...	3.82	...	...	...
		Dinbhatta	0.02	...	...	0.87	0.01	...	...	1	0.00	0.49	0.00	3.22	102.11	92.26
		Kuch Bihar	0.07	...	0.05	1.50	0.22	...	...	3	2.44	0.85	2.44	3.50	107.87	116.76
		Mickiganj	...	...	...	0.85	...	...	...	1	0.35	0.55	0.35	2.83	97.76	104.15
		Mathabhang	...	...	0.03	0.13	...	...	...	1	0.10	1.18	0.10	4.53	120.40	110.74
		Darjeeling	0.55	0.40	4.45	0.11	0.18	0.25	...	...	1.49	...	0.51	...	186.31	...
		Sidkuri	0.12	...	...	...	...	...	...	1	0.12	1.79	0.12	3.63	110.96	107.46
		Darjeeling	...	...	...	...	...	...	...	Nil	Nil	1.41	0.02	2.74	111.74	103.34
BENGAL		Kalimpong	...	...	0.03	...	...	...	...	Nil	0.03	0.63	0.12	2.28	96.33	81.68
		Kurseong	...	...	...	1.22	...	...	...	...	...	...	...	...	...	...
		Pouong	...	...	0.03	0.12	...	...	...	...	...	...	...	...	...	...
		Chittagong	...	...	2.08	0.20	0.03	0.10	0.20	1	0.23	1.86	3.53	3.00	140.29	124.74
		Oak's Bazar	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Chittagong	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Kuluddia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Sarkanya	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Kodda	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Fenosa	...	...	...	...	...	...	...	...	...	...	...	...	...	...
BENGAL		Mirzapur	0.08	0.05	0.47	0.97	1.76	...	...	...	...	...	...	...	...	...
		Chandpur	...	...	...	0.16	0.35	...	...	...	...	...	...	...	...	...
		Kaushambi	0.09	...	0.21	0.71	...	...	...	2	1.01	1.92	4.13	4.80	102.59	77.97
		Bundarban	0.37	0.02	0.11	...	...	...	...	...	...	...	...	...	...	...
		Backergunge	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Paimakhal	...	...	...	0.87	0.50	...	0.84	2	1.10	1.67	1.27	2.98	135.53	81.42
		Pirojpur	...	...	...	1.80	0.12	0.64	...	2	1.87	1.60	1.37	2.98	84.88	64.43
		Barisal	...	...	0.05	0.21	0.88	0.11	...	3	2.69	1.32	3.73	2.42	79.82	63.63
		Gournad	...	...	...	...	0.30	...	...	...	...	...	...	...	...	...
		Bhola	...	...	0.07	...	...	...	0.50	...	...	1.07	...	3.24	77.16	...
BENGAL		Daulatkhana	...	...	...	0.58	...	...	...	...	...	...	...	...	...	...
		Bauphal	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Noakhali	0.18	...	...	0.27	0.03	2.15	...	3	2.03	1.93	0.45	4.13	104.82	101.73
		Fenny	...	...	0.40	0.65	0.42	0.15	...	...	...	1.65	...	3.66	...	99.11
		Harishpore	0.05	...	1.45	...	...	...	...	...	...	...	...	...	...	...
		Ramganj	0.11	...	...	0.29	0.18	0.18	...	...	...	...	...	...	...	...
		Faridpur	...	...	...	1.03	...	...	...	...	...	1.41	...	2.21	52.56	...
		Faridpur	0.00	...	...	...	...	0.05	0.66	1	0.77	1.65	0.77	2.44	65.61	55.97
		Gosalundo	0.83	0.70	0.10	...	0.08	0.45	...	4	2.11	1.76	2.11	3.11	63.33	49.94
		Dacca	...	...	...	...	...	...	...	...	...	...	...	...	...	...
BENGAL		Munshiganj	0.06	0.17	...	1.40	0.40	...	1.90	1	3.93	1.43	4.10	2.88	56.14	65.76
		Dacca	...	...	...	...	...	...	...	1	0.80	1.20	1.2	2.34	60.65	53.08
		Sackyanagar	0.11	0.07	0.12	...	0.12	0.60	2.43	4	2.94	0.93	3.31	2.17	55.94	59.19
		Munshiganj	...	...	0.02	...	0.37	0.41	0.63	2	0.83	1.16	1.20	1.95	51.60	46.86
		Joydebpore	...	0.14	...	...	0.12	0.60	0.13	4	0.99	...	1.44	...	61.63	...
		Hill Tippera	...	...	0.72	...	...	1.26	...	...	...	1.34	...	2.70	...	57.26
		Comilla	...	...	0.12	3.02	...	0.04	0.66	3	3.84	1.50	5.28	2.86	80.31	72.11
		Chandpore	...	...	0.52	...	...	0.11	0.27	3	0.90	1.42	2.16	3.78	65.84	71.39
		Brahmanbaria	0.65	...	0.36	...	...	0.06	...	...	...	1.69	...	2.73	...	58.04
		Ramchandra	...	...	...	...	...	...	...	...	...	...	...	...	...	...
BENGAL		Porcup	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Nasirnagar	...	0.45	...	0.35	...	...	...	...	...	...	...	...	...	...
		Daulkandi	0.25	...	...	0.80	...	...	0.50	3	1.55	...	...	...	...	...
		Kasba	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Laksham	...	0.15	...	...	...	...	...	...	...	...	...	...	...	...
		Myemensingh	...	0.20	...	...	...	...	0.28	2	0.48	1.08	0.48	3.06	80.87	66.87
		Atia (Tangail)	...	...	0.11	...	0.10	0.79	...	3	1.90	1.29	1.44	2.34	68.53	61.83
		Myemensingh	...	0.25	0.25	0.01	...	...	0.07	2	0.58	1.69	0.73	3.05	84.80	70.15
		Jamalpur	...	1.92	0.10	...	...	...	...	...	...	1.11	...	2.66	...	61.47
		Natrakon	0.40	0.15	...	...	...	...	0.50	3	1.35	...	2.81	...	76.89	78.63
BENGAL		Subornakhal	0.10	1.20	...	...	...	...	...	...	...	...	...	...	...	...
		Durgapore	...	4.07	...	...	...	...	...	...	...	...	...	...	...	...
		Sherepore Town	...	0.43	0.12	...	...	...	...	...	...	...	...	...	...	...
		Dewanganj	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Purnea	0.08	...	...	...	...	...	...	Nil	0.08	0.61	0.08	1.77	94.00	68.02
		Araria	...	...	...	...	...	...	...	Nil	Nil	1.16	Nil	2.29	88.01	61.70
		Purnea	0.46	...	...	...	...	...	...	1	0.46	1.05	0.50	2.20	58.69	59.10
		Gandwara	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		(Kurak)	...	...	...	...	0.84	...	...	1	0.84	...	0.84	...	60.51	...
		Forbesganj	...	...	...	...	...	...	...	...	...	...	...	...	...	...
BENGAL		Kataganj	0.10	...	...	...	...	...	...	...	...	...	...	...	...	...
		Madhipura	...	...	...	...	...	...	...	Nil	Nil	1.09	Nil	2.83	55.08	47.41
		Bongoon	...	...	...	...	...	...	...	Nil	Nil	...	Nil	...	...	...
		(Sylabad)	...	...	...	...	...	...	...	Nil	Nil	1.05	Nil	1.81	46.87	46.44
		Supaul	...	...	...	...	...	...	...	Nil	Nil	...	Nil	...	63.74	...
		Protaganj	...	...	...	...	1.49	0.06	...	2	1.81	1.15	1.81	2.21	47.56	46.39
		Bhaganpur	0.2													

Statement of Rainfall in Bengal for the week ending Saturday (8 a.m.), the 14th of October 1893—*contd.*

Meteorological Division.	District.	Station.	RAINFALL.							Total number of rainy days.	Rainfall of week.	Average rainfall of week.	Total rainfall since 1st of month.	Average total rainfall from 1st of month.	Total rain fall since 16th May 1893.	Average rainfall from 16th May to date.	
			Sunday, 8th.	Monday, 9th.	Tuesday, 10th.	Wednesday, 11th.	Thursday, 12th.	Friday, 13th.	Saturday, 14th.								
NORTH BHAR	Muzaffarpur...	Sitamarhi ...	...	...	...	...	...	...	...	Nil	Nil	1.33	Nil	2.15	51.04	41.7	
		Muzaffarpur ...	...	...	...	...	...	...	...	Nil	Nil	1.00	Nil	2.00	37.29	43.7	
		Hajipur ...	...	...	...	...	...	...	...	Nil	Nil	1.48	Nil	3.19	30.50	40.7	
		Para ...	...	...	...	...	...	...	...	Nil	Nil	...	Nil	?	...	...	
		Mahua (Chitwarra) ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	...	...	
		Siuhar ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	...	...	
		Pupri ...	...	...	...	...	...	...	...	Nil	Nil	1.58	Nil	2.97	72.72	48	
		Mouharri ...	...	...	...	...	...	...	...	Nil	Nil	1.50	Nil	3.41	...	47	
		Botia ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	64.07	...	
		Barh ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	35.87	...	
SOUTH BHAR	Champan ...	Barh ...	...	...	...	...	...	...	...	Nil	Nil	1.06	Nil	4.76	42.02	48	
		Gopalganj ...	...	...	...	...	...	...	...	Nil	Nil	1.37	Nil	3.18	35.20	41	
		Siwan ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	...	...	
		Ekma ...	...	...	...	...	...	...	...	Nil	Nil	1.30	Nil	2.57	30.00	38	
		Chupra ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	?	...	
		Seepore ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	?	...	
		Annur ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	?	...	
		Basantpur ...	...	...	...	...	...	...	...	Nil	Nil	0.91	Nil	2.25	34.63	36	
		Buxar ...	...	...	...	...	...	...	...	Nil	Nil	0.21	Nil	1.18	37.01	39	
		Dehri ...	...	...	...	...	...	...	...	Nil	Nil	0.06	Nil	2.15	50.84	38	
CHOTA NAGPUR.	Bhabhua ...	Bhabhua ...	...	...	...	...	...	...	...	Nil	Nil	0.77	Nil	2.32	44.19	33	
		Sasaram ...	...	...	...	...	...	...	...	Nil	Nil	1.25	Nil	?	43.89	...	
		Arrah ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	?	...	
		Mohana ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	?	...	
		Khiri ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	?	...	
		Agesson ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	?	...	
		Ramagar ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	?	...	
		Koath ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	?	...	
		Sikrol ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	?	...	
		Bassowan ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	?	...	
CHOTA NAGPUR.	Monaharpur ...	Monaharpur ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	?	...	
		Aurangabad ...	...	...	...	...	...	...	...	Nil	Nil	1.15	Nil	2.54	36.43	40	
		Gaya ...	...	...	...	...	...	...	...	Nil	Nil	0.98	Nil	1.80	37.17	40	
		Nawadab ...	...	...	...	...	...	...	...	Nil	Nil	1.02	Nil	1.88	40.37	40	
		Jahannabad ...	...	...	...	...	...	...	...	Nil	Nil	1.23	Nil	2.46	55.71	...	
		Arwal ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	?	...	
		Daudnagar ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	?	...	
		Sherghati ...	...	...	...	...	...	0.38	...	Nil	Nil	0.34	Nil	0.38	?	?	
		Rasul ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	?	...	
		Pakra Barawan ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	?	...	
CHOTA NAGPUR.	Patna ...	Patna ...	...	...	...	...	...	...	...	Nil	Nil	1.26	Nil	2.22	40.00	41	
		Dumapore ...	...	...	...	...	...	...	...	Nil	Nil	1.00	Nil	2.14	44.31	41	
		Bihar ...	...	...	...	...	...	...	...	Nil	Nil	1.22	Nil	2.13	...	47	
		Burh ...	...	...	...	...	...	...	...	Nil	Nil	0.94	Nil	2.02	37.74	41	
		Bikram ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	52.34	...	
		Hilsa ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	49.63	...	
		Monghyr ...	...	...	...	...	...	...	...	Nil	Nil	1.00	Nil	1.84	51.12	41	
		Bogunara ...	...	...	...	...	...	...	...	Nil	Nil	1.19	Nil	2.32	53.37	41	
		Monchyr ...	...	0.08	...	...	...	0.83	...	1	0.91	0.77	0.91	1.70	39.08	41	
		Jamui ...	...	...	...	...	...	...	2.15	Nil	Nil	?	Nil	?	50.20	...	
CHOTA NAGPUR.	Gour ...	Gour ...	...	...	...	...	...	...	...	2	1.15	?	Nil	?	54.26	...	
		Shackpura ...	...	...	...	...	...	...	...	2	1.15	?	Nil	?	?	...	
		Chakar Bamla ...	...	1.00	...	...	...	...	...	Nil	Nil	?	Nil	?	51.29	6	
		Chupra ...	0.22	...	...	...	...	...	...	2	0.41	1.34	0.41	2.13	...	6	
		Hajmali ...	0.16	0.31	...	...	...	...	...	3	0.84	1.11	0.84	2.04	...	6	
		Goda ...	...	...	...	...	...	...	...	2	1.37	1.55	1.37	2.50	72.57	0	
		Pakour ...	0.39	...	...	0.38	...	...	...	3	3.33	1.21	3.33	2.73	63.85	0	
		Naya Dumka ...	0.04	0.02	...	1.56	0.02	1.55	0.15	3	1.64	1.00	1.64	1.95	50.40	4	
		Doughur ...	0.27	...	...	...	0.53	0.78	...	1	1.79	0.07	1.79	2.07	55.35	4	
		Jamuna ...	0.05	1.05	...	...	...	...	...	1	1.79	0.07	1.79	2.07	...	...	
CHOTA NAGPUR.	Balhoda ...	Balhoda ...	...	...	...	...	...	...	...	?	?	?	?	?	?	...	
		Nanhat ...	...	...	...	...	...	...	...	?	?	?	?	?	?	...	
	Hazaribagh ...	Pachamba ...	...	...	...	0.13	...	...	0.42	2	0.55	0.82	0.55	1.82	63.43	4	
		(Griddi) ...	...	...	...	...	...	0.06	0.02	0.35	2	1.03	1.03	2.34	72.36	4	
		Hazaribach ...	...	...	...	...	...	...	...	?	?	?	?	?	?	...	
		Semlaguran ...	...	...	...	...	...	...	...	?	?	?	?	?	?	...	
		Mahudi Hills ...	...	...	...	...	...	...	...	?	?	?	?	?	?	...	
		Jhuma Hill ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	49.25	...	
		Barhi ...	...	...	...	...	...	...	...	Nil	Nil	?	Nil	?	50.57	...	
		Chatra ...	...	...	...	...	...	...	...	1	0.11	?	0.11	?	49.47	...	
		Karjaleha ...	0.11	...	...	...	...	0.30	...	1	0.30	?	0.30	?	?	...	
		Rangar ...	...	...	...	...	...	...	...	?	?	?	?	?	?	...	
CHOTA NAGPUR.	Lohardaga ...	Lohardaga ...	...	...	...	0.19	0.15	...	...	?	?	1.03	?	1.37	...	...	
		Ranchi ...	...	...	...	...	...	...	...	?	?	1.10	?	1.84	...	...	
		Silt ...	...	...	...	...	...	...	...	?	?	1.07	?	2.17	...	...	
	Palamau ...	Palamau (Daltenganj) ...	...	...	...	...	...	...	...	?	?	?	?	?	?	...	
		Palamu ...	...	...	...	0.05	...	...	...	?	?	?	?	?	?	...	
		Husainabad ...	...	...	...	...	...	...	...	?	?	?	?	?	?	...	
		Garkwa ...	...	...	...	...	...	...	...	Nil	Nil	0.81	Nil	1.54	51.05	...	
		Chandama ...	...	...	...	...	...	...	...	2	1.37	?	1.37	?	38.86	...	
		Chakardharpur ...	...	0.17	...	...	...	1.20	...	?	?	?	?	?	?	...	
		Chakardharpur ...	...	...	...	...	...	...	...	?	?	?	?	?	?	...	
		Chakardharpur ...	...	...	...	...	...	...	...	?	?	?	?	?	?	...	
		Chakardharpur ...	...	...	...	...	...	...	...	1	0.60	?	0.60	?	47.75	...	
		Chakardharpur ...	...	...	...	...	0.60	...	...	?	?	?	?	?	?	...	
CHOTA NAGPUR.	Manbhum ...	Manbhum ...	...	...	...	...	...	...	...	3	1.12	1.05	1.12	1.94	67.54	...	
		Manbhum ...	...	...	...	...	...	...	...	3	0.66	1.03	0.66	2.25	49.54	...	
		Manbhum ...	...	...	...	...	...	...	...	1	0.20	?	0.20	?	?	...	
		Manbhum ...	...	...	...	...	...	...	...	2	1.74	?	1.74	?	60.34	...	
		Manbhum ...	...	...	...	...	...	...	...	1	0.32	?	0.32	?	55.25	...	
		Manbhum ...	...	...	...	...	...	...	...	1	0.30	?	0.30	?	51.00	...	
		Manbhum ...	...	...	...	...	...	...	...	0.72	2	1.15	?	1.15	?	55.37	...
		Manbhum ...	...	...	...	...	...	...	...	?	?	?	?	?	?	...	
		Manbhum ...	...	...	...	...	...	...	...	?	?	?	?	?	?	...	
		Manbhum ...	...	...	...	...	...	...	...	?	?	?	?	?	?	...	

Explanation.—... indicates that no rain has fallen. If the return for any day has not been received, the corresponding space is left blank. If any of the return wanting, the corresponding space in the total rainfall column are left blank. With reference to the column of rainy days, the definition of a rainy day is when at least 0.1 inch of rain has fallen.

CALCUTTA, the 17th October 1893.

**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSER-  
VATIONS TAKEN IN ASSAM, FOR THE WEEK ENDING 8 A.M.,  
SATURDAY, THE 14TH OF OCTOBER 1893.**

DURING the first week of October pressure was low over Burma and the east of the Bay, and the westerly indraught towards this low pressure area was accompanied by fine, settled and almost rainless weather in all districts, as well as in the north of the Bay. During the present week the area of lowest pressure has been in the west of the Bay or over the peninsula, and though weather has never been disturbed, the easterly wind circulation has caused numerous local storms and irregularly distributed rainfall over the greater part of the province throughout the week. Pressure changes have been very slight, and the distribution remained uniform over the province, even when a depression was developing in the south-west of the Bay. Hence, though the general tendency for winds was to blow from the east, they were always light and frequently variable as to direction. Temperature, notwithstanding the showery weather, has been considerably above the normal, a fact which may be accounted for by the maximum temperatures being generally little affected by the passing showers which were soon followed by bright sunshine.

A shallow low pressure area developed off the Madras coast, but filled up before reaching the land. It began to show about the 8th, and deepened slowly till the 10th, when cloudy, rainy weather was general along the whole of the Madras coast. There was then little change in the wind velocity, and during the two following days, while the centre of the disturbance was moving slowly westward, these conditions continued on the Coromandel coast, but there was a considerable increase of velocity at Paumben and on the west coast of Ceylon. On the 13th it had almost entirely filled up, and moderate south-westerly winds were blowing at most of the Madras stations. During the early part of the week winds strengthened somewhat in the east of the Bay, but otherwise comparatively fine weather with passing showers prevailed.

Pressure has remained very steady throughout the week, rising and falling by small amounts. Readings were generally below the normal by about a twentieth of an inch, and the means for the week are therefore in defect in all districts by about '04 inch in the east of the province and '06 inch in the western districts.

Temperature has generally been above the normal except in the eastern districts, where there has been at times a moderate defect. The mean temperature for the week is above the normal except in Assam, where there is defect of 1°, and in East Bengal, where it is practically normal. Excess is half a degree in South-West and North Bengal; in Orissa it is 1·3°, in Chota Nagpur nearly 2°, and in Bihar more than 2°.

Rainfall.—Scattered rain has fallen in nearly all districts during the greater part of the week. A few showers fell in Purnea and Bhagalpur, but in the other districts of North Bihar none has been recorded, while South Bihar, Shahabad, Gaya and Patna have been practically rainless. In the other districts the showers have been fairly evenly distributed, but as they were due to local thunder-storms, the amounts are very irregular. The average fall in South-West Bengal is 2·2 inches, almost double the normal, and in North and East Bengal, with an average fall of about an inch-and-a-half, there is a small excess. In Orissa rather more than a third of the normal has fallen, in Chota Nagpur and part of South Bihar about half, and in North Bihar about a tenth.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 14th of October 1893:—

METEOROLOGICAL Divisions		TEMPERATURE.							RAINFALL.								
		H. heat observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	1st week.		Rainy days.		Since 1st of month.		Since 16th May 1893.			
				Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.
Orissa	...	93·2	75·3	89·0	74·1	83·8	+1·3	0·06	1·00	-1·00	1·07	1·35	-0·18	0·66	3·31	63·81	48·15
South-West Bengal	...	94·7	70·3	88·5	77·0	82·9	+0·8	2·20	1·15	+1·05	2·06	1·59	+1·37	2·00	2·19	59·07	48·65
North Bengal	...	91·0	72·1	87·4	75·9	81·7	+0·5	1·41	1·07	+0·34	2·08	1·41	+0·67	1·56	2·03	74·50	66·93
East Bengal	...	90·1	70·9	86·4	79·2	81·3	-0·3	1·00	1·51	+0·50	2·56	1·04	+0·03	3·21	3·07	81·28	70·52
North Bihar	...	92·8	69·8	90·2	75·0	82·6	+2·4	0·13	1·25	-1·15	0·17	1·01	-0·86	0·13	3·67	62·23	46·38
South Bihar	...	93·4	71·0	91·1	74·8	83·0	+2·3	0·17	1·03	-0·50	0·88	1·03	-0·35	0·47	2·16	45·63	41·74
Chota Nagpur	...	92·3	68·3	86·1	71·0	79·0	+1·8	0·35	0·90	-0·44	1·30	1·23	+0·15	0·55	1·94	58·27	77·28
Assam	...	90·0	70·4	85·4	73·3	79·3	-1·1										

METEOROLOGICAL OFFICE, BENGAL,

O. LITTLE,

The 17th October 1893.

Offg. Meteorological Reporter to the Govt. of Bengal.

# Results of the Meteorological Observations taken at the Alipore Observatory from 8th to 14th October 1893.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32 F <sup>ah</sup> .	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
				Inches.	°	°	°	°	°	Inches.	°	%			Inches.	
Oct	8th	147.8	7.5	29.729	81.7	88.0	11.7	76.3	79.0	0.957	77.9	88	WSW and N	35	Nil	Partially cloudy, o, d.
"	9th	136.3	0.8	757	80.6	83.8	8.4	75.4	78.3	0.912	77.4	90	SW and calm	32	0.79	Chiefly cloudy, o, g, d, t, <, p.
"	10th	148.5	7.2	779	80.8	88.0	11.5	76.5	78.1	0.911	77.4	90	WSW, NE by N, and NNW.	56	0.75	Partially cloudy, o, g, d, p, t, d.
"	11th	147.8	6.8	777	80.9	87.6	10.5	77.1	78.6	0.918	77.6	90	ESE and calm	53	2.12	Partially cloudy, o, g, t, <, p, d.
"	12th	152.1	8.5	781	82.1	88.6	13.2	75.1	79.2	0.959	78.0	87	ESE, SSW, and SW.	35	0.02	Partially cloudy, d.
"	13th	145.7	8.5	752	82.1	87.6	10.2	77.1	78.9	0.916	77.5	87	SW and SSW	43	0.04	Partially cloudy, o, g, t, d, d.
"	14th	148.5	9.9	783	82.8	87.8	10.1	77.7	78.8	0.932	77.1	83	ESE, calm and variable.	33	0.07	Partially cloudy, p.

The mean pressure of the seven days ...

The average pressure of the corresponding period for 24 years, Surveyor-General's Office ...

Inches.  
29.761

29.820

Hours.

49.2

The total number of hours of bright sunshine ...

The maximum possible number of hours of sunshine ...

81.8

The mean temperature of the seven days ...

The average temperature of the corresponding period for 24 years, Surveyor-General's Office ...

81.6

82.6

The extreme variation of temperature ...

The maximum temperature ...

13.2

88.6

Miles.

8

The highest velocity of the wind in one hour ...

The highest pressure of wind on one square foot ...

lbs.

?

%

83

The mean relative humidity ...

The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office ...

80

Inches.

3.79

The total fall of rain from 8th to 14th October 1893 ...

The average fall of the corresponding period for 24 years, Surveyor-General's Office ...

1.17

83.02

The total fall from 1st January to 14th October 1893 ...

The average fall of the corresponding period for 24 years, Surveyor-General's Office ...

61.72

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o, overcast; g, gloomy; d, drizzling rain; p, passing temporary showers; t, thunder; <, lightning; d, dew.

## Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 8th to 14th October 1893.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32 Fahr.	TEMPERATURE.						HYGROMETRY.			Rainfall, past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
October	8th	29.800	83.3	90.0	13.7	70.3	81.6	78.5	.894	75.8	70	0.53
"	9th	.833	81.8	88.0	12.4	75.6	77.6	75.5	.858	74.6	91	0.65
"	10th	.848	83.1	90.0	13.2	79.8	87.6	81.5	.994	79.0	76	0.03
"	11th	.847	82.9	89.0	12.2	76.8	86.9	81.5	1.002	79.3	78	0.68
"	12th	.853	83.0	90.0	11.0	76.0	86.1	79.5	.920	76.7	74	2.64
"	13th	.819	83.7	90.0	12.7	77.3	81.6	79.0	.939	78.0	89	0.28
"	14th	.831	84.2	90.0	11.7	78.3	81.8	79.5	.938	77.8	78	0.01

The mean 10 A.M. pressure of the seven days ... .. Inches.  
29.833

The mean temperature of the seven days ... .. 83.2

The extreme variation of temperature ... .. 14.4

The maximum temperature ... .. 90.0

The mean 10 A.M. relative humidity of the seven days ... .. 80

The total fall of rain from 8th to 14th October 1893 ... .. Inches.  
4.85

The daily mean temperatures are the crude means of maximum and minimum temperatures.

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA,

The 16th October 1893.

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 7th October 1893, on 1,610½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	284,080	Rs. 2,30,860 2 0 A. P. 186 3 1	Mds. 30,50,133 30	Rs. 0,02,082 15 0 A. P. 411 1 8	Rs. 15,540 3 0 A. P. 9 10 6	Rs. 9,77,108 4 0 A. P. 606 15 3	75,080½	108,205½	183,286
Or per mile of railway ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
For previous 13½ weeks of half-year ...	3,744,567	39,03,722 15 0	3,02,64,085 0	64,83,210 3 0	1,80,501 13 0	1,05,76,434 15 0	1,007,076	1,254,286	2,262,362
Total for 14½ weeks ...	4,028,647	42,03,589 1 0	3,33,09,118 30	71,45,293 2 0	2,05,051 0 0	1,15,53,933 3 0	1,083,056½	1,362,551½	2,445,608
COMPARISON.									
Total for corresponding week of previous year ...	263,703½	2,00,871 2 4	18,86,634 10	1,44,293 13 6	10,480 7 11	7,51,654 7 9	72,651	76,001	148,652
Per mile of railway corresponding week of previous year ...	.....	180 9 0	.....	275 13 11	10 3 10	466 11 6	.....	.....	.....
Total for corresponding 14½ weeks of previous year ...	3,606,371	35,75,578 1 1	3,13,94,467 0	68,66,791 13 8	2,27,052 13 1	1,06,69,332 11 10	1,067,527	1,201,302	2,268,829

## TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 7th October 1893, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	18,063	Rs. 4,603 0 0 A. P. 206 14 0	Mds. 14,005 0	Rs. 439 6 0 A. P. 19 12 0	Rs. 37 0 0 A. P. 1 10 7	Rs. 5,679 0 0 A. P. 228 4 7	803	75	878
Or per mile of railway ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
For previous 13½ weeks of half-year ...	222,700	54,373 0 0	1,18,720 10	13,660 3 0	1257 0 0	58,200 12 0	11,812	894	12,706
Total for 14½ weeks ...	240,763	58,976 0 0	1,32,725 10	14,099 9 0	204 0 0	63,370 2 0	12,705	1,069	13,774
COMPARISON.									
Total for corresponding week of previous year ...	20,002½	5,560 6 5	5,630 0	206 3 0	10 4 6	5,776 13 11	883	70	953
Per mile of railway corresponding week of previous year ...	.....	219 14 6	.....	9 4 3	0 7 5	269 10 2	.....	.....	.....
Total for corresponding 14½ weeks of previous year ...	267,030	65,411 0 8	79,462 0	3,089 11 0	106 15 0	68,508 10 8	13,007	882	13,889

\* Added number of passengers 338 and Rs. 71½ on account of difference between the approximate and audited figures for the week ended 2nd September 1893.  
† Do. mounds 4 and .. 32½  
‡ Do.

## DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for week ended 7th October 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	22,023	Rs. 15,797 2 0 A. P. 87 14 0	Mds. 55,113 10	Rs. 8,887 5 0 A. P. 55 1 1	Rs. 38 0 0 A. P. 0 8 9	Rs. 24,722 7 0 A. P. 153 2 10	6,228½	2,910½	9,139
Or per mile of railway ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
For previous 13½ weeks of half-year ...	1,359,911	11,70,191 0 0	17,35,603 30	135,620 10 0	1,458 0 0	2,75,083 0 0	61,200½	80,025½	141,226
Total for 14½ weeks ...	281,934	1,14,898 8 0	7,90,176 0	1,04,416 15 0	400 0 0	2,99,805 7 0	67,429	88,945	156,374
COMPARISON.									
Total for corresponding week of previous year ...	16,008	12,248 11 7	32,799 20	7,460 12 0	65 0 0	10,774 8 4	6,394	1,927	8,321
Per mile of railway corresponding week of previous year ...	.....	75 14 3	.....	46 3 7	0 6 6	122 8 4	.....	.....	.....
Total for corresponding 14½ weeks of previous year ...	240,720	1,70,365 10 1	5,13,451 10	90,108 3 6	621 12 0	2,61,143 9 7	91,786	33,485	125,271

\* The increase is in outward traffic principally from Delhi, Karnal, Umballa, and Kalka stations.  
† Added number of passengers 345 and Rs. 95  
‡ Do. mounds 33,539 and .. 1,174 on account of difference between the approximate and audited figures for the week ended 2nd September 1893.  
§ Do.



## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K.-D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for the week ended 7th October 1893, on 778 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	192,320	96,910 0 0	12,80,830 0	2,40,830 0 0	17,630 0 0	3,55,370 0 0	29,500	44,597	74,097
Or per mile of railway ...	247	125 0 0	1,058 0	310 0 0	*3 0 0	*438 0 0	.....	.....	.....
For previous 13 weeks of half-year ...	†2,122,305	8,08,765 0 0	1,03,18,955 0	20,25,634 0 0	2,14,529 0 0	31,38,032 0 0	372,009	368,924	740,933
Total for 14 weeks ...	2,314,625	9,05,675 0 0	1,16,08,775 0	22,66,464 0 0	2,32,159 0 0	34,04,392 0 0	402,109	438,521	840,630
COMPARISON.									
Total for corresponding week of previous year ...	175,704	72,082 0 0	6,13,647 0	1,51,260 0 0	12,208 0 0	2,38,017 0 0	29,342	31,900	61,242
Per mile of railway corresponding week of previous year ...	226	93 0 0	90 0	194 0 0	*2 0 0	*289 0 0	.....	.....	.....
Total to corresponding date of previous year ...	2,171,110	9,12,885 0 0	98,55,629 0	23,65,904 0 0	2,34,920 0 0	34,53,415 0 0	384,549	504,402	888,951

\* Including steamer earnings.

† Audited up to week ending 2nd September 1893.

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for the week ended 7th October 1893, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	42,440	11,530 0 0	50,700 0	5,210 0 0	80 0 0	17,150 0 0	8,810	1,862	5,672
Or per mile of railway ...	340	94 0 0	454 0	42 0 0	1 0 0	137 0 0	.....	.....	.....
For previous 13 weeks of half-year ...	406,102	1,25,650 0 0	7,44,901 0	60,591 0 0	1,723 0 0	1,57,903 0 0	49,171	25,622	74,793
Total for 14 weeks ...	448,602	1,37,410 0 0	8,01,691 0	65,831 0 0	1,803 0 0	2,05,053 0 0	52,981	27,484	80,465
COMPARISON.									
Total for corresponding week of previous year ...	32,998	9,049 0 0	40,238 0	3,734 0 0	107 0 0	13,550 0 0	8,810	1,868	5,672
Per mile of railway corresponding week of previous year ...	264	77 0 0	322 0	30 0 0	1 0 0	108 0 0	.....	.....	.....
Total to corresponding date of previous year ...	427,458	1,35,063 0 0	7,35,441 0	64,475 0 0	2,105 0 0	2,02,333 0 0	52,371	30,772	83,143

\* Audited up to week ending 2nd September 1893.

## DACCA STATE RAILWAY.

Approximate Return of Traffic for the week ended 7th October 1893, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	23,000	7,000 0 0	61,500 0	5,470 0 0	130 0 0	12,660 0 0	2,507	1,467	3,974
Or per mile of railway ...	268	82 0 0	715 0	64 0 0	1 0 0	147 0 0	.....	.....	.....
For previous 13 weeks of half-year ...	221,854	70,160 0 0	3,51,927 0	24,465 0 0	2,032 0 0	96,666 0 0	32,770	10,363	43,133
Total for 14 weeks ...	244,854	77,229 0 0	4,13,427 0	29,935 0 0	2,162 0 0	1,09,398 0 0	35,277	11,820	47,097
COMPARISON.									
Total for corresponding week of previous year ...	13,294	4,481 0 0	23,343 0	1,940 0 0	88 0 0	6,513 0 0	2,299	737	3,036
Per mile of railway corresponding week of previous year ...	158	52 0 0	277 0	23 0 0	1 0 0	76 0 0	.....	.....	.....
Total to corresponding date of previous year ...	226,907	72,817 0 0	3,61,090 0	20,042 0 0	3,161 0 0	96,000 0 0	36,015	9,850	45,865

\* Audited up to 2nd September 1893.

## BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIRHUT STATE RAILWAY.)

Approximate return of traffic for the week ending 7th October 1893, on 756 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC		Other earnings (estimated), including steam-bout.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchan- dise.	Total.
		Rs.	Mds.	Rs.	Rs.	Rs.			
total traffic for the week on 756 miles open ... ..	97,150	86,940	3,11,310	40,130	9,200	86,300	17,206	11,446	28,712
per mile of railway ... ..	128.51	48.86	411.95	53.08	12.20	114.23	....	....	.....
or previous 13½ weeks of half-year* ... ..	1,168,937	4,44,492	28,17,043	3,71,236	1,14,939	9,50,067	187,552	182,513	370,065
Total for 14½ weeks ... ..	1,261,087	4,81,432	31,28,252	4,11,366	1,24,229	10,17,027	204,818	193,960	398,777
COMPARISON.									
total for corresponding week of previous year on 756 miles open ... ..	78,464	30,156	2,61,073	32,112	8,819	71,087	14,438	12,413	26,851
per mile of corresponding week of previous year ... ..	108.91	39.94	345.79	42.53	11.68	94.15	....	....	.....
total to corresponding date of previous year ... ..	1,160,306	4,37,164	35,65,993	4,51,100	1,16,584	10,04,848	194,302	212,082	406,384

\* Includes audited figures up to 26th August 1893.

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

		Rs.	A.	P.
Approximate earnings for the week ending 30th September 1893	...	10,566	0	0
Corresponding period of 1892	...	14,031	0	0
Decrease	...	3,465	0	0
Receipts per mile for the week ending 30th September 1893	...	207	2	10
Corresponding period of 1892	...	275	1	11
Decrease	...	67	15	1
Receipts from 1st July to 30th September 1893	...	1,42,399	0	0
Corresponding period of 1892	...	1,47,450	0	0
Decrease	...	5,051	0	0

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

		Rs.	A.	P.
Approximate earnings for the week ending 7th October 1893	...	18,066	0	0
Corresponding period of 1892	...	14,741	0	0
Decrease	...	1,675	0	0
Receipts per mile for the week ending 7th October 1893	...	256	3	2
Corresponding period of 1892	...	289	0	6
Decrease	...	32	13	4
Receipts from 1st July to 7th October 1893	...	1,55,465	0	0
Corresponding period of 1892	...	1,62,191	0	0
Decrease	...	6,726	0	0



# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, OCTOBER 25, 1893.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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### SURVEY AND RECORD OF RIGHTS IN BIHAR.

THE following papers in connection with the cadastral survey of North Bihar are published for general information by order of the Officiating Lieutenant-Governor. It is to be understood that the draft Bill for maintaining the land records, and the draft of the rules proposed under the Bill, are subject to further examination in detail, with a view to the adjustment of expenditure and the regulation of village inspection on the most moderate scale compatible with securing an efficient maintenance of accurate village maps and Record of Rights.

M. FINUCANE,  
Offg. Secy. to the Govt. of Bengal.

No. 1130T.-R., dated Darjeeling, the 21st September 1893.

From—M. FINUCANE, Esq., Offg Secy. to the Govt. of Bengal, Revenue Dept.,  
To—The Secretary to the Government of India, Revenue and Agricultural Dept.

I AM desired by His Honour the Officiating Lieutenant-Governor to forward, for the information and orders of the Government of India, a draft Bill (Appendix C to this letter) for establishing an agency for the maintenance of records of rights made under Chapter X of the Bengal Tenancy Act, and to request the permission of the Governor-General in Council to the introduction of the Bill into the Bengal Legislative Council on a suitable opportunity. I am at the same time to forward a Minute, dated 20th September 1893, which Sir Antony MacDonnell has recorded in connection with the cadastral survey and record of rights now being carried into effect in Bihar, and with the maintenance of the record when made.

2. A memorial, without date, received on the 1st September 1893, forwarded under separate cover, has been submitted to the Officiating Lieutenant-Governor by the British Indian Association, the Bihar Landholders' Association, the Bhagalpur Landholders' Association, and the Zamindari Panchayat, and the Indian Property Association, for transmission to Her Majesty's Secretary of State, in which the legality, necessity, and utility of the record of rights have been again called in question; and Sir Antony MacDonnell has thought it right to examine this memorial, to point out its defects and inaccuracies, and generally to re-state the whole case for a survey and record of rights of North Bihar. The Minute is therefore submitted in the hope that it will not only justify the legislation which it is necessary to undertake in order to maintain the record, but also that it will show in a compendious form the reasons which, operating over a long series of years, have led Government to undertake these operations in Bihar. On the margin of paragraph 7 of the Minute will be found references to the portions of the Minute in which the statements made in the memorial of the Zamindari Associations are discussed.

3. I am to invite attention to the opinions (Appendices A and B to the Minute) of both Members of the Board of Revenue, in which they express their concurrence with the views of the Officiating Lieutenant-Governor. I am also to invite attention to paragraphs 73A and 73B of the Minute, in which the President and Secretary of the Indigo Planters' Association intimate a willingness to accept the scheme for maintaining the record, subject to a condition with which Sir Antony MacDonnell wishes to comply.

4. The question whether the Land Record establishment may be utilized for registration of titles to and transfers of land under the General Registration and Transfer of Property Acts, is one which has been brought to His Honour's notice. Provision has been made for the communication to the Land Record-keepers of registrations effected under the former Act; but after much consideration Sir Antony MacDonnell thinks that, before going further in this direction, it will be better to bring the Land Record system now proposed into working order, and then to graft on to it any expansion that may be considered to be practicable.

5. Advantage has been taken of the opportunity afforded by the Bill to spread the realisation of the expenses of the survey and record of rights over a period of years, thus lightening the burden of costs on the zamindars and raiyats, and at the same time facilitating their collection. I am in this connection to invite special attention to section 12 of the Bill and paragraph 74 of His Honour's Minute.

# MINUTE II ON THE CADASTRAL SURVEY AND RECORD OF RIGHTS IN BIHAR, BY HIS HONOUR THE OFFICIATING LIEUTENANT-GOVERNOR.

## PART I.

### INTRODUCTION.

In discussing the question of the cadastral survey and settlement of North Bihar in a Minute dated the 24th June last, my chief objects were to secure the assent of the Governor-General in Council to the following two principles:—

Object of the Lieutenant-Governor's Minute of 24th June 1893, and orders passed by the Government of India upon it.

- (a) That no person should be employed in making the survey or preparing the record who was in the employment of their landlord or tenant, or who was not entirely under the control of the Government and liable, as a public servant, to punishment for misfeasance.
- (b) That when the record of rights had been correctly completed, it should subsequently be maintained up to date, and that immediate steps should be taken to create an official agency for maintaining it.

The Minute and its appendices also set forth proposals both as to the agency to be employed in making the survey and record, and in maintaining it when made; and I had the satisfaction of being able to cite the joint opinion of the Members of the Board of Revenue, endorsing and accepting those proposals.

The Government of India was pleased to approve fully of my proposals, His Excellency in Council pointing out that those concerning the maintenance of the record of rights were in point of fact in agreement with, though in amplification of, the scheme which had been previously put forward by Sir Charles Elliott, the addition consisting in the provision for map amendment and for correction of the record on the spot, without which no scheme for maintaining the record of rights could be effective or complete.

2. Having received these orders of the Government of India, I caused a draft scheme for maintaining the records to be sent for consideration to the Indigo Planters' Association and the Bihar Landholders' Association—the two great bodies charged with safeguarding landlords' interests in Bihar; and at the same time the

Action taken by the Lieutenant-Governor on receipt of the approval of the Government of India of proposals made in the Minute of 24th June 1893.

Board of Revenue was requested to prepare a draft Bill upon the subject, with such draft subsidiary rules as might be necessary for giving effect to its provisions. My intention was—an intention subsequently carried into effect—to lay the draft scheme, Bill, and Rules before a representative Conference of all interested in the question, on the occasion of a visit to Muzaffarpur which I had decided to make.

3. I went to Bihar at the end of July, and at a Public Darbar held on the 31st idem at Bankipore, referred to the question of the survey and record of rights then in progress. The question whether a survey should or should not be made being no longer an open one, I limited my observations to two points, namely, "how the work can be best and most cheaply done; and how, when done, its good effects may be perpetuated." This meant, as I went on to explain, whether the survey was to be carried out by Government patwaris or by amins; and whether the records were to be maintained by the Government (or registered) patwaris or by the kanungos of the draft scheme which had been circulated for criticism to the Indigo Planters' and Landholders' Associations, as stated in paragraph 2 above. My object in my Darbar speech

was to place the issues with their limitations clearly before all interested parties, and that object was fully secured by the publicity given to my observations. I attach to this Minute a copy of that portion of my speech in Darbar which is concerned with the question under notice.

4. Before leaving Calcutta for Bihar, I had received the draft of a memorial against the record of rights, purporting to proceed jointly from the planters, zamindars, and others landholders of North Bihar, which it was proposed to present to me at Muzaffarpur. In the sequel it turned out that the memorial was practically an expression of the views of the Indigo Planters' Association only; but as such it was entitled to the greatest consideration, and this it received. The memorial, besides raising some very important questions, indicated the existence in the minds of its framers of such extreme misconceptions as to the official attitude of this Government and as to the meaning of the Bengal Tenancy Act, that I welcomed the opportunity its presentation gave me of supplementing my remarks in Darbar by a further statement, which well-nigh covers the entire ground in controversy. I attach to this Minute a copy of the memorial and of my reply.

5. These preliminaries over, the Conferences for which I had gone to Bihar took place at Muzaffarpur under the presidency of the Hon'ble Mr. Stevens, Senior Member of the Board of Revenue, and the results are recorded in the Minutes of the proceedings and in Mr. Stevens's report dated the 14th August, both of which documents are enclosures to this Minute. Briefly stated, the results are that the zamindars are still opposed to the maintenance of the record of rights; but in view of the contingency of their opposition proving futile, they express preference for the maintenance of the record through kanungos or Land Record-keepers to its maintenance through patwaris; that is to say, they prefer the scheme of maintenance indicated in Appendix B of my Minute of the 24th June and the draft Bill submitted to the Conference, to the enforcement of Regulation XII of 1817, or the resuscitation of the patwari. I have accepted the choice made by the zamindars.

It is quite true that their choice is a conditional choice, but that is because they object to the maintenance of the record altogether, and not because they do not think the scheme a good one. The truth is that the great majority of Bihar landholders do think the scheme as good as, in the prescribed conditions, could be devised, and that they are immensely relieved in mind by my acquiescence in their conditional acceptance of it in preference to the patwari scheme. They said so at the time, and they again express their satisfaction in the Resolution printed in the enclosures, which of their own motion the Tirhut Landholders' Association have forwarded to the Government.

6. In paragraph 31 of my Minute of the 24th June last, reasons were given why it was thought desirable to enforce the provisions of Regulation XII of 1817, and the registration of patwaris in the districts under settlement. Briefly, these reasons were primarily that the cost of survey might be cheapened by employing the registered patwari instead of an amin in surveying his village; secondly, that an agency for maintaining the record might be created and put into training. There was, however, general reluctance on the part of landlords to register their patwaris or bring them in any way under Government control. If the patwaris were not to remain their private servants, while working under the Government in making the survey or framing the record of rights, then the zamindars would prefer that the Government should make its own arrangements for survey and framing the record, and leave the patwaris alone. This state of feeling, the difficulties attaching to any effort to work patwaris under Regulation XII of 1817, and the choice as to the agency for future maintenance made by the zamindars—all these three considerations induced me to abstain from enforcing a general registration of patwaris, and to instruct the Director of Surveys to employamins or professional surveyors only in survey work in Bihar, care being taken that, though local men may, without objection, and indeed with advantage, be trained as surveyors, no amin shall be employed in surveying a village, with which, or with the

owner or raiyats of which, he has or had any connexion. It is true that this decision destroys the hope I had entertained of cheapening the survey by employing registered patwaris to do the measurements which, under the Regulation, they are bound to do as part of their statutory duties; but the objections of the zamindars gave conclusive force to the consideration that it would be undesirable to register patwaris under Regulation XII of 1817, make them Government servants, and train them to survey work, when on the completion of the survey, that is after the lapse of a few months, their services were no longer to be made use of. The men to be employed on survey work henceforward will form a body from which we can pick and choose our agents for subsequent maintenance of the record. It may be added here that the zamindars, seeing my difficulty and appreciating my wish to reduce the costs, have offered me free of cost the unskilled labour required by the Survey Department. This will be a material help for which I am much obliged to the zamindars.

7. So far the way is clear, and it is to be hoped that all the uncertainties which had gathered around the operations in connexion with the agency for survey and for subsequent maintenance of the record will now disappear. I have already given the necessary orders, both as to the agency for making the survey and framing the record, and as to the procedure to be followed by it, and my orders on these points are being separately reported to the Government of India for information and approval. These orders will, I trust, have the effect of securing accuracy in preparing the record, as the amins will be entirely precluded from making any entries affecting the status of the tenant or the rate of his rent. Entries regarding these all-important matters will be made by superior officers only. It now remains for me to submit to the Government of India the legislative proposals by which the agency for maintaining the record

Fresh Memorial of Zamindari Associations against the record of rights.

\* The specific objections to the cadastral survey urged in this memorial may be classed under the following heads. The paragraphs of this Minute on which the objections are specially answered are given in brackets, but the objections are generally dealt with in Part IV of the Minute.

(a) The zamindars were kept in ignorance of the intention of the Government to survey Bihar. "They were not aware that such a measure was in contemplation until the Secretary of State's sanction had been obtained." [21.]

(b) The cadastral survey of Bihar should not have been undertaken without special legislative sanction. The survey of a district is not authorized by the provisions of section 101, Tenancy Act, which only applies to a "local area," which must necessarily mean a limited area possessing some special features. [25-27A.]

(c) The cadastral survey of Bihar is required for "administrative purposes," and if it is to be continued, the Government should bear all the costs, which ought not to be imposed on landlords and tenants under section 114 of the Act, and which, if imposed, will impoverish them. [57, 58, 61.]

(d) All District Officers having local knowledge are, as shown by the Parliamentary Return published in May last, against the cadastral survey. [49.]

(e) The cadastral survey will cause general litigation which will not be conducted in the ordinary courts, "which are well known and trusted by the people," but must be heard and determined by Revenue officers, "whose decisions for obvious reasons will not be considered with the same respect." The experience of the cadastral survey in the Srinagar estate is an illustration of this. [56, 59.]

(f) No provision has been made for any agency for maintaining the record when it has been completed. [28, 55.]

is to be legalized and funds for its support provided. But as I have just received from the British Indian and Bihar Landholders' Associations a Memorial\* for submission to Her Majesty's Secretary of State, in which the legality, expediency and usefulness of the survey and record of rights, and its subsequent maintenance, are again called in question, it may be useful to recapitulate the reasons and emphasize the necessity for such legislation as I propose, and generally for such a survey and record of rights as we are now carrying into effect in Bihar. This procedure will enable me to answer the memorialists and justify the action of the Government on all points which they raise. This has indeed been already done many times: but the memorialists are rich, active and influential, and amid the often refuted contentions which they attempt to revive, the true issues are apt to be lost sight of, and the voice of reason and justice to remain unheard. It is well to remind those who interest themselves in the controversy that the question lies not between the Government and the zamindars, but between

the zamindars and their raiyats, and that the only interest the Government has in the matter is, as Lord Ripon's Government said, "the diminution or prevention of human suffering." It is true that the raiyats do not make their grievances known through public meetings, telegrams to the newspapers, and all the other devices of an exotic system of agitation. But the grievances are

there all the same—deep-seated, growing, continuous; they make the administration of Bihar a most anxious task for this Government at all times, and when the crop of even a single season fails, a task which becomes well-nigh insupportable.

Let there be no mistake, no misapprehension of the issue now. While we wish to deprive the zamindars of no privilege to which they are justly entitled, and while we would increase their facilities for managing their estates and collecting their rents, our principal object in undertaking the survey and record of rights in Bihar is to protect the legal rights of the raiyats, which have been so lamentably neglected in the past. The zamindars seek to defeat the existing law: the Government seeks to enforce it.

8. In the following remarks, then, I shall briefly traverse the entire ground covered by legislative and executive action in Bengal during the past century, in connection with the subject of recording of raiyats' rights. I shall first deal with the record of rights in its historical and legal aspects. I shall next consider the necessity of a record of rights in Bihar as it existed before the passing of the Tenancy Act. I shall then examine whether that necessity has been removed or mitigated by the operation of that Act. The evidence we have as to the usefulness of a record of rights as a remedy for the agrarian abuses which exist will afterwards be stated, and on convenient opportunities the various objections raised in the Zamindars' memorial now submitted will be noticed. Lastly, the expediency and effectiveness of the Bill I propose for the maintenance of a record of rights will be discussed.

## PART II.

### THE SURVEY AND RECORD OF RIGHTS AND IN ITS HISTORICAL AND LEGAL ASPECTS.

9. The agrarian difficulties in Bihar which now confront us are the fruits of the mistake which Lord Cornwallis committed in making the Decennial Settlement of the land revenue permanent without first recording the relative rights and interests of zamindars\* and raiyats in the soil. It is a matter of history that the settlement in perpetuity of the land revenue of these Provinces had been the subject of prolonged consideration before Lord Cornwallis ever came to India. It was one of the subjects over which Francis and Hastings disputed, and more than a century ago it ranged Bengal officers into two opposing schools—the zamindari and the raiyatwari. Helped by English or feudal notions of property in land, the zamindari view prevailed against indigenous custom and immemorial practice, and for years before 1793 preliminary enquiries were prosecuted with the object of ascertaining the true assets of the various estates preparatory to a settlement of the revenue in perpetuity. Among other means taken to ascertain these assets was farming the estates to the highest bidder—a plan which was naturally objectionable to the old zamindars, who memorialized the Government in England on that and other alleged grievances. In passing orders on that memorial in 1784, the Court of Directors clearly showed that it was not their intention that a permanent settlement of the revenues should be made without full enquiry into the rights of all parties, and without the provision of adequate safeguards for the immemorial rights of the raiyats. The Court's orders dated 1784 accordingly directed that an enquiry should be made into the rights of all descriptions of persons according to the established usages of the country. These enquiries, which were

Argument to be developed in this Minute.

\* The article under the head "Zamindar" in the Glossary to the Fifth Report prepared by Sir Charles Wilkins, the Orientalists, explains the original and derived meaning of zamindar. "A zamindar," he says, "is an officer who, under the Muhammadan Government, was charged with the superintendence of the lands of a district financially considered, the protection of the cultivators and the realization of the Government share of its produce either in money or kind, out of which he was allowed a commission amounting to about 10 per cent. and occasionally a special grant of the Government share of the produce of the land of a certain number of villages for his subsistence, called *markar*. The appointment was occasionally renewed; and as it was generally continued in the same person so long as he conducted himself to the satisfaction of the ruling power, and even continued to his heirs, so in process of time and through the decay of the ruling power and the confusion which ensued, hereditary right, at best prescriptive, was claimed, and tacitly acknowledged, till at length the zamindars of Bengal in particular, from being the mere Superintendents of the land, have been declared to be the hereditary proprietors of the soil, and the before fluctuating dues of Government have under a permanent settlement been unalterably fixed in perpetuity."



preliminary to the permanent settlement of the land revenue, resulted in voluminous reports from the Collectors of districts, the Board of Revenue, and other public officers in the Lower Provinces of Bengal, and these reports

Mr. Shore opposes the Permanent Settlement on the ground of inopportuneness.

were summarised and examined by Mr. Shore (afterwards Lord Teignmouth and Governor-General of India) in his Minutes, dated 18th June 1789, for Bengal, and 18th September following, for Bihar, which are printed as appendices to the well-known Fifth Report of the House of Commons on Indian Affairs. But the information then gathered was merely of a general character: it afforded very inadequate knowledge as to the financial resources of the various districts, as only in a few districts was any attempt made to institute detailed enquiries or to establish a record of rights. The want of precision which characterised the information which had been gathered so convinced Mr. Shore of the inexpediency, both in the financial interest of Government and in the interest of the raiyats, of basing any permanent arrangements on it, that all the weight of his great influence was directed towards inducing the Governor-General to conclude a settlement in the first instance for ten years only, and a decennial settlement was actually made. It was Mr. Shore's hope that during that term

\* See Mr. Colebrooke's Minute of 1st May 1812, and Mr. Justice Field's "Regulations of the Bengal Code," page 26.

these special enquiries and record of facts might be completed which had already been begun in the 24-Parganas and other places under the orders of Government.\*

10. Unfortunately Mr. Shore's prudent counsels did not prevail with the Governor-General, who in his Minute of 3rd February 1790, declared his belief that the objects which

Lord Cornwallis, while agreeing with Mr. Shore as to the necessity for protecting the rights of the raiyats, differs from him as to means. Raiyats' rights consequently not ascertained before the Settlement.

Mr. Shore had in view might be secured by speedier means than a detailed and tedious enquiry. It was Lord Cornwallis' opinion that by limiting the Government demand upon the zamindar, and by

imposing on him the obligation of coming to terms with his raiyats, subject to specific rules and restrictions, the purposes of a detailed enquiry in the interest of the raiyats would be effectually and expeditiously fulfilled, while the immediate advantages to the revenue derivable from a permanent settlement would at once accrue. The advice of Mr. Shore was therefore rejected, and the decennial settlement was declared permanent without any definite knowledge having been acquired of the resources of each estate, and without any precise record having been made of the reciprocal relations of zamindar and raiyat. Rules, however, were provided in the Settlement Regulation, whereby it was believed that those relations would be established on a permanent and satisfactory basis. To these rules I shall presently refer at length: but here I would note that the outcome of Lord Cornwallis' policy has unfortunately justified Mr. Shore's fears rather than the Governor-General's hopes. While we are to-day under the necessity, which Mr. Shore foresaw, "of correcting abuses by new rules," we do not find that the zamindars verify Lord Cornwallis' expectations by welcoming these corrections or by accepting that interference on the part of Government which the Governor-General asserted to be "undoubtedly necessary for effecting an adjustment of the demands of the zamindars upon the raiyats." On the contrary, this interference, which was foreseen to be possible, and expressly declared to be justifiable by the authors of the Permanent Settlement themselves, is now resented as an infraction of a solemn engagement of which a chief stipulation was the reservation of this very power of interference.

11. The modifications which the Permanent Settlement introduced into the

Effect of Permanent Settlement on status of zamindars.

relations between the Government and the zamindars are specifically set forth in the Proclamation

dated 22nd March 1793, which was afterwards enacted into Regulation I of the same year. That Proclamation contained two principal provisions: it fixed for ever the revenue which had been assessed on the various estates at the Decennial Settlement which had just been concluded, and it declared the settlement-holders, whom it designated "proprietors of the lands," privileged to transfer "to whomsoever they think proper, by sale, gift or otherwise, their proprietary rights in the whole or any portion of their estates without applying to Government for its sanction to the transfer." There were some subsidiary stipulations, to which it is unnecessary to refer here more specifically; but the

intention and effect of the Proclamation was to abandon, on the part of Government, the right to increase the revenue which had been assessed on the estates of the zamindars, and, subject to summary sale for non-payment of that revenue, to constitute the zamindars, *as far as the Government was concerned*, owners of these estates.

12. 'Now the rights which the Government possessed were admittedly not exhaustive of all the interests in the land. Under the customary law of the country, as admitted by the authors of the Permanent Settlement, the raiyats, too, had rights which it was not discretionary with the Government to alter or annul. Those customary rights of the raiyats the Permanent Settlement neither did nor could affect or prejudice in any degree whatever (see section 15, Regulation VII, 1799, clauses 7 and 8). The zamindars do not complain that the effect of the survey and record of rights, or the measures proposed for the maintenance of the records, will be to enhance the revenue for which their estates are liable, nor to fetter the free transfer, by sale, gift or otherwise, of the whole or any portion of their rights. As far as the relations between them and the Government are concerned, there can therefore be no ground for any charge of breach of faith, and there is no allegation of any such breach. The charge is that, by recording the various rights in the soil and maintaining the record, the Government of today is violating a pledge given in 1793. No charge could be more baseless than this; for in 1793 not only was the power to intervene reserved, but by the provisions regarding the delivery of pattas, the appointment of patwaris, and the stereotyping of the official unit of measurement under the Regulations of the Decennial and Permanent Settlements, the intention was to record the areas of the holdings, the status of the tenants, and the rates of rents, and to fix the last-mentioned for ever. Had the Government in 1793 not contented itself with the elaboration of rules and theoretic plans alone, and had it followed Mr. Shore's advice and translated these rules into practice, and actually recorded rates and status before declaring a settlement permanent which had been framed on confessedly defective and inaccurate information, until the defects had been made good and the inaccuracies rectified, there might have been no need for such a reservation as that contained in Article VII. As it was, however, the reservation was essential, and it is upon it that we are now acting, so far as the altered facts permit.

13. The safeguards by which Lord Cornwallis hoped to protect the interests of the raiyats were, briefly put, three in number. The first was the injunction on zamindars to prepare pattas, subject to the approval of the Collector (to preclude the introduction of new clauses or covenants); the second was the deposit in the collectorate of the standard of measurement, whereby the areas of holdings might be guaranteed; and the third was the maintenance of the accounts of the raiyats by the village patwari, whereby the permanency of the rates might be secured. It was intended by these safeguards to assure to the raiyats the possession of a certain area of land on certain specific conditions and at specific rates of rent: in other words, to certify the information we shall furnish to all parties by the record of rights now in progress. This intention was completely defeated by the persistent refusal of the zamindars to give pattas, or to recognize the patwaris as the custodians of the raiyats' rights. It has also been stated, with some plausibility, that the raiyats were not always eager for these pattas. They were apprehensive that the consolidation of all demands in the patta would be only the creation of a new *asul* or original rent, upon which fresh cesses or *abwabs* might be calculated, and that the acceptance of a patta would diminish the force of their customary right to hold their lands as long as they paid the pargana rate for it; but the obligation on the zamindars to fulfil this intention of the Regulations, and on the Government to see it fulfilled, has not been weakened by the lapse of time, though time has shown that the method of fulfilment preferred in 1793 was ineffectual, and certainly not suitable to circumstances as they are today.

14. To understand the refusal of the zamindars to give pattas, one has only to consider what a patta meant. It meant a lease renewable in

perpetuity, prepared by, and at the expense of, the zamindar, and delivered to the raiyat through the Collector, specifying the area of the holding, the conditions of the tenancy, and the amount of rent which was never to exceed the established pargana rates. In other words, the Permanent Settlement provided that the pargana or customary rates of rent should remain fixed and unalterable for ever, just as it provided that the revenue payable by the zamindars to Government should also remain fixed in perpetuity. Obviously the zamindars had the very strongest reasons for not complying with their obligations in regard to the delivery of pattas. Compliance would have effectually limited the zamindar's control over his raiyats and put an end to all enhancements of existing rent. It would have compelled the zamindars to look for an increase in their rent-roll to the reclamation of the waste land only, as was indeed intended. The zamindars therefore opposed a passive resistance to the orders of Government; and as Lord Cornwallis, while insisting on the delivery of pattas as a stipulation of the settlement, provided no standard, such as a record of rights, and no agency other than the Civil Courts (an inadequate, novel, and exotic institution) to which the raiyats could appeal, the result was that the provisions of the settlement regarding pattas were not observed.

In theory, Lord Cornwallis' plan for securing the record of raiyats' rights was excellent. The accuracy of the area of the holding was provided for by the unit of measurement deposited for safe custody with the Collector; the integrity of the conditions of the holding, and the exclusion of all new covenants, were guaranteed by the provision requiring the Collector's approval to the pattas. The permanency of the rates of rent, and the maintenance of fair dealing between raiyat and zamindar, were vouched for by the appointment of the patwari as a public servant to keep the village accounts. Nothing could be better *on paper*, but the whole plan was a complete failure in practice, simply because no executive agency to enforce the arrangement was provided. For precisely similar reasons has the Bengal Tenancy Act hitherto failed in Bihar, and we are now endeavouring to correct this failure by creating that executive agency which, taught by experience, we have provided for in Chapter X of the Tenancy Act.

15. It is not uncommonly believed that the terms of settlement of the land revenue made with the zamindars in 1793, by Lord Cornwallis' Government, were easy, and that the revenue assessed was light. I am disposed to doubt this view, and to think that, at all events in the Bengal districts, the settlement was for the time a severe one. In his Minute of June 1789, Mr. Shore wrote:—

"A proportion of nine-tenths of the zamindars' receipts is surely as much as our Government ought to demand if it means to regard the welfare of their subjects by zamindars' receipts. I should hope that the profits of the zamindars would in time exceed this proportion by a due attention to the improvement of their lands and encouragement of their raiyats."

And this was the basis on which the Permanent Settlement was made—90 per cent. of the assets (*i.e.*, then existing rentals) as then ascertained were taken by the Government, and 10 per cent. left to the zamindars. To modern notions this would be a harsh assessment, but it must be remembered that the zamindars had their *ambar* or *nij-jot* lands free; that they were secured all the prospective income from waste lands; and that, finally, many of the best officers of the day believed there had been concealment of assets, and that as a matter of fact Government did not get nearly 90 per cent. of the assets of the estates. And this belief seems to have been better grounded, as regards Bihar than as regards Bengal. Mr. Narisithadar Grant, in his *Analysis of the Finances of Bengal*, published in 1788, estimated the concealment of assets at more than a crore of rupees, or one-fourth of the whole. But Mr. Shore disputed this; and I myself believe that we have, in the rapidity, especially in Bengal, with which estates were sold up for arrears of revenue at the end of the last century, some proof that the revenue assessed was at the time excessive. The sales of estates in Bihar were comparatively few compared with Bengal, thus indicating the greater lightness of the settlement in the former province. Of course the refusal of raiyats to pay rents, owing to the zamindar's demand of rent at rates above the pargana rate to which I have adverted, might explain to some extent the enforced sales, without the assumption that the settlement was itself harsh; but my impression is that the assessment made in 1793 was

severe for the time. After a very few years, with the reclamation of waste lands and the unauthorised enhancement of rents, the case was entirely reversed, the income of the zamindars, which was represented by one-ninth of the Revenue in 1793, having become more than fivefold the Revenue in 1893. *In three generations the income of zamindars of North Bihar has increased eighty-fold\* (in the Darbhanga district it has been increased an hundred-fold).*

	Revenue assessed in 1793 (Permanent Settlement).	Rental in 1793 (calen- lated on Government revenue plus 1/4th zamindars' allowance.	Rental as shown in existing road cess returns.	Year of valu- ation of rental.
	Rs.	Rs.	Rs.	
Darbhanga	10,55,395	11,72,661	71,37,044	1883
Muzaffarpur			67,27,909	1891
Champaran	13,27,533	14,75,036	30,73,556	1888
Saran			59,87,760	1883
	<u>23,82,928</u>	<u>26,47,697</u>	<u>2,39,16,269</u>	

I am myself disposed to think that the true income in 1793 was higher than would appear from the above figures, but in any case the increase is still enormous. The present Government revenue of the four districts of North Bihar is Rs. 34,05,149, the increase in the century being due to resumptious, escheats, &c. The existing rental thus varies from five times the revenue in Saran to ten times in Darbhanga. The valuation of the Darbhanga district is now in process of being revised, and I am informed by the Collector that the present rental will show an increase of 10 per cent. over the rental of 1883. If this be so, the rental will be eleven times the revenue of that district (7 lakhs of rupees), or, put in another way, the revenue will be only 9 per cent. of the gross rental. With what show of reason, then, can Bihar, and especially Darbhanga, zamindars claim that the general tax-payer shall pay for that record of rights which they are, and always have been, under a legal obligation to establish?

16. Reverting to my narrative, I wish to point out that after the Permanent Settlement had been concluded the zamindars at once began to evade tender of pattas, or tendered them at more than the customary rates. The raiyats refused to accept these pattas, which they either did not understand, or found to be unfair. There was a withholding of rents, much confusion soon prevailed, and many estates were sold, especially in Lower Bengal, for arrears of revenue. (In Bihar, where, as I have said, the settlement seems to have been made, though ostensibly on similar, yet really on more lenient, terms than in Bengal, the sales of estates were much fewer.) This circumstance caused the East India Company, which had to pay its dividends and to meet the expenses of the great war with Tippoo, in which Lord Wellesley was then engaged, some alarm for the security of its own revenue. The zamindars declared they could not pay the revenue unless their hands were strengthened against the recusant raiyats; and the Government, pressed by want of money, agreed to strengthen the hands of those on whom it immediately depended for the punctual payment of its revenue.

The notorious *Haftam*, or Regulation VII of 1799 (which ought to be a lesson and a warning to those who would now undertake to devise a summary procedure for realizing rents), was therefore enacted "for enabling

The following figures have been furnished by the Board of Revenue :--

Zamindars' gross income (on which revenue was assessed) in 1793	...	...	Rs. 26,47,697
Government revenue as assessed at Permanent Settlement	...	...	23,82,928
		Zamindars' profit	<u>2,64,769(a)</u>
Zamindars' gross income (rental) in 1893 (excluding increase in Darbhanga)	...	...	2,39,16,269
Government revenue in 1893	...	...	<u>34,05,149</u>
		Zamindars' profits in 1893	<u>2,05,11,120(b)</u>

Therefore (b)=eighty times (a).

proprietors and farmers of land to realize their rents with greater punctuality; for providing against unnecessary delay in the payment of the public revenue assessed upon the lands; and for securing the ultimate recovery of arrears of revenue by a sale of the landed property, from which it may be due, at the close of the year." This Regulation gave the landlords practically unrestricted right of distraint. They were empowered "to distrain, without sending notice to any court of justice or any public officer, the crops and products of the earth of every description, the grain, cattle, and all other personal property, whether found in the house or on the premises of any other person." Moreover, with a view to give the landlords greater power still over their tenants, Magistrates were required to punish by fine or imprisonment raiyats who could not establish the truthfulness of complaints of hardship made against landlords or their distraining agents, and the Civil Courts were directed to indemnify zamindari officers or others employed in the collections when improperly summoned. It was further declared that if any person should wantonly and without cause be the means of summoning to the Courts of Justice, Civil or Criminal, the principal officer or any officer engaged in collecting the rents of any zamindar, talukdar, or other landholder or farmer of land, and a loss of rent or other evident damage should be sustained by the landholder or farmer in consequence of such wanton and unnecessary summons, an action should lie against the party who caused the summons for such loss or damage, and on proof thereof the party injured should be entitled to recover the amount with all costs of suit.

17. This Regulation was not meant to define or limit the actual "rights of any description of landholders or tenants, which could properly be ascertained and determined by judicial investigation only, but merely to point out in what manner defaulting tenants might be proceeded against in the event of their not paying the rents justly due from them, leaving them to recover their rights, if infringed, with full costs and damages in the established courts of justice." These last provisions, says Mr. Justice Field,\* scarcely required comment. "There is scarcely a country in the civilized world in which a landlord is allowed to evict his tenant without having recourse to the regular tribunals; but the Bengal zamindar was deliberately told by the Legislature that he was at liberty to oust his tenants if the rents claimed by him were in arrear at the end of the year, leaving them to recover their rights, if infringed, by having recourse to those new and untried courts of justice, the failure in which might be punished with fine or imprisonment."

The result of this Regulation was that in 12 years the ancient rights of the raiyats throughout Bengal were on the verge of obliteration.† The student of Indian history, as it has hitherto been written, remembers the administration of Lord Wellesley for the victories of Seringapatam, Assaye and Laswari. But these brilliant episodes have their antitheses in the evils produced by this bad law.

18. There was, however, no intention to abrogate the rights of the raiyats by Regulation VII of 1799, and when, during Lord Minto's Administration, the evil effects of the Regulation became known, there was a strong revulsion of official feeling, which produced Regulation V of 1812 (the *Panjam*), whereby it was hoped to correct the bad effects of Regulation VII of 1799. "Under‡ the *Haftam* process the person of the raiyat could be seized in default; under the *Panjam* process his property could be distrained, and in either case the proceedings commenced by what has been described as a strong presumption equivalent to a knock-down blow against the raiyat." The effect of Regulation of 1812 was unsatisfactory, and at last it was clearly recognized that the raiyats would never of their own accord define the legitimate rights of their raiyats, nor place any limitation to their own claims upon them. Lord Cornwallis' plan of giving pattas had failed totally, and it was therefore resolved to strengthen and reorganise the indigenous system of patwaris and amildars as an independent agency for maintaining a record of the reciprocal

Evil effects of Regulation VII of 1799 on the rights of the raiyats.

\* "Landholding in various countries."

† See the Minute dated November 1814, by Mr. Henry Colebrooke. Enclosure VI.

Remedies applied (Regulation of 1812). Revival of the *Patwar* System (Regulation XII of 17).

12 (the *Panjam*), whereby Bengal Administration Report 1872-73, page 81.

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rights of both parties. The zamindars were bound by section 62, Regulation VIII of 1793, to maintain a patwari in every village, who was to be a Government servant; but in this, too, they neglected their obligations, and gradually converted the patwari into their own private servant or gomasta. The reform now embarked on was embodied in Regulation XII of 1817.

19. When that Regulation became law, the Board of Revenue proceeded to take action on it by prescribing what the duties of the patwaris should be.<sup>1</sup> But the Board had not even in 1817 sufficiently gauged the stolidity of zamindari opposition to all reform affecting raiyats' interests and they afforded an effective means of resistance to the zamindars in the dual allegiance which the Regulation imposed on the patwari—a means which zamindars have not failed to make full use of from that day to this. The Court of Directors were better advised, as will be seen from the extract from their valuable letter of 12th July 1820 (Enclosure VII). They feared that the Regulation would prove futile, and their fears were only too well founded. It soon became apparent that as an engine for the protection of the tenant, by bringing on record and maintaining the established rates and rules by which rents were to be regulated, Regulation XII of 1817 was as useless as the provisions of Regulation VIII of 1793 had been. The objects of the Government in 1817, as in 1793, were entirely frustrated by the systematic opposition of the zamindars to every attempt of the Revenue Officers to obtain any satisfactory record of the relations between landlord and tenant.

20. Things had now been advanced to this stage. The failure of Lord Cornwallis' method of a record of rights by means of pattas had been recognized; the failure of the Patwari Regulation XII of 1817 was being justly admitted, all advocates of raiyats' rights were coming to an agreement that the only effective plan for securing agrarian quiet and fair dealing was by a survey and record of rights. To-day the zamindari advocates in the newspapers and in Parliament would fain have the public believe that the record of rights such as we now propose to make is a new-fangled notion—the product of anti-landlord feeling. Nothing could be more untrue. *The proposal made by Mr. Shore, but rejected by Lord Cornwallis in the last century, to have a detailed record of rights of Bengal, was accepted as such by the Government more than 70 years ago.* Convinced by the failure of Lord Cornwallis' plan of the interchange of pattas, and satisfied that the Patwari Regulation XII of 1817 would of itself do no good, the Government of India, 70 years ago, saw that the only effective means of securing agricultural quiet and prosperity in Bengal was by a record of rights. In a Despatch, dated 1st August 1822,\* to the Court of Directors, the Government of India wrote as follows —

"In the ceded and conquered provinces, our separate despatches relative to the settlement will show that we design, as far as practicable, to adjust through the agency of the Collectors, the rights and interests of every raiyat in every village as it may be settled, and specifically to deliver the rights of the zamindars with reference to the mutasals jamabandi so made. *The existence of the Permanent Settlement in the Lower Provinces does not, in our judgment, oppose any objection to the adoption of a similar course there, if we can command a sufficiency of fit officers, and if the scheme be generally deemed expedient; for Government, in limiting its interference, has reserved the option of such interference, and if the zamindars are allowed to assess their raiyats, and to issue patta on equitable terms as provided, they would require no other protection than the proof that it could be done.*"

"It is well, about the year 1822, even though the raiyats of Bengal had perceived no advantage from the holding of their lands at determinate rates, considered as tenants of the Sovereign, it was unquestionably competent to the Government of India, in its own right, to fix also the rate at which the malguzars were to hold their lands, and to render perpetual the rates existing at that time. *The Permanent Settlement in the Lower Provinces being declared, the rule is of course not applicable to the raiyats of Bengal.*"

"The Government of India, in its despatch of 1st August 1822, on the subject of measurement, khatahs, or field-books, has laid down the principle that in a raiyati possession, the rent payable, the crops grown, the soil, &c. &c. are to be taken into consideration. On this point I would invite reference to the Board's letter dated 18th May 1892, and to the report annexed to this Minute. I do so because the zamindars of Bihar have contended that the revenue of the village was not among the patwaris' statutory duties but the zamindars' and I believe some of the error of that contention even before my recent visit to Bihar."



Thus the Government of India, so far back as 1822, proposed a record of rights of the permanently-settled districts of Bengal as being the only effectual means of defining and maintaining the rights of the raiyats, all other means having proved useless.

21. In reply, the Court of Directors in 1824,\* far from thinking such proceedings an invasion of the rights of the zamindars, wrote thus:—

\* Revenue Selections, Vol. III, page 443.

"It is in the highest degree important that your design of adjusting the rights and interests of the raiyats in the villages as perfectly in the Lower as in the Upper Provinces should be carried into effect. The doubts which we have already expressed with respect to the sufficiency of the Collector's agency will receive from you a due degree of attention. The complaint you make with respect to the limited extent of the machinery which you can apply is of serious importance. You certainly do not estimate too highly the danger of performing such enquiries precipitately, and without due security for their being sufficiently exact; and from your assurance that the matter will continue to command your most anxious attention, we feel confident that no unnecessary delay will be incurred. If the great cause of delay is the inadequate extent of the agency you can employ, it is important to consider by what means it may be practicable to enlarge it. We shall have the greatest satisfaction in receiving the result of your deliberation upon this subject, and shall be ready most zealously to co-operate with you for the speedy accomplishment of so desirable an end. Should you succeed in securing to the raiyats those rights, which it was assuredly the intention of the Permanent Settlement arrangements to preserve and maintain, and should you in all cases where the nature and extent of those rights cannot be now satisfactorily ascertained and fixed, provide such a limit to the demand upon the raiyat as fully to leave to them the cultivator's profits under leases of considerable length, we should hope that the interests of that great body of the agricultural community may be satisfactorily secured."

22. On the receipt of these orders in India, it would seem that an exhaustive enquiry was set on foot to ascertain precisely what had been the precise effect of the endeavours to reorganize the patwari and kanungo systems on the basis of Regulation XII of 1817. The results of this enquiry were reported to Government in the Board of Revenue's letter No. 2199 of 11th May 1827, which is printed in Enclosure IX. Practically it amounted to this, that—to quote from the letter—"until means are devised for ensuring the authenticity of the documents furnished, whether they relate to accounts, mensuration, or raiyatwari assessments, the office of kanungo will mislead instead of giving any useful information." In other words, nothing could be done without a record of rights.

23. It would be tedious to trace what further steps were taken after 1827 till our own times to carry out a record of rights in Bihar. But the history of Bengal legislation shows that from 1827 till the Mutiny the views of the zamindari party were unduly in the ascendant.

If it were part of my present purpose to trace the progress of agrarian legislation in Bengal, I should here have to devote much space to considering the utterly ruinous effects which the sale laws, from Regulation XI of 1822 to Act XI of 1859, have had on the rights and condition of the raiyats. "The mischievous power of annoyance, interference, and extortion," says Mr. Justice

† "Landholding in various countries," page 670.

Field† (who was by no means a raiyat's advocate), "which these sale laws have given to the auction purchaser, have been fatal obstacles to agricultural improvement, and have proved at once the source and the instrument of oppression and wrong. We can talk of it and write of it with indifference; but to the tenant of an estate, as remarked by Sir Henry Ricketts, the sale was 'the spring of a wild beast on the fold, the bursting of a shell in a square. It was the disturbance of all they had supposed to be stable.'" An auction purchaser had power to annul all rights and eject all tenants who could not prove they held a particular status, and few of them could prove this, because there was no record to which the raiyats could appeal in defence of their rights, which the laws always saved and guaranteed.

24. But if I abstain from following the course of legislation between 1827, when the necessity of the record of rights was admitted by the East India Company, and 1885, when it was begun under the Government of the Queen-Empress, I wish to say a word on the new contentions [marked (a) and (b) in the margin of paragraph 7 above]

Contention refuted that Chapter X of the Bengal Tenancy Act is not applicable to the survey of an entire district. Meaning of "local area,"

raised by the Zamindari Associations in their memorial to the Secretary of State, submitted after the twelfth hour had struck, that they have had no notice of the intention to survey Bihar, and that Chapter X of the Tenancy Act is inapplicable to the survey of so large an area as a district, still less of four entire districts.

I had myself special opportunities of becoming acquainted with the intentions of the Legislature in framing Chapter X of the Tenancy Act, and I might declare from personal knowledge that there never was, from first to last, any intention of restricting the discretion of the Government as to the extent of country to which the chapter might be applied. I might assert from special information on the point that it is an entire mistake to suppose that the provisions of the Act regarding surveys and record of rights were not intended to be applied by Government of its own motion to whole districts or divisions like the Commissionership of Patna, without application from the landlords and tenants. But in this matter I do not ask the Government of India to accept my own remembrance of the facts as authoritative evidence on the point. I prefer to cite the evidence of the declarations of Governor-General in Council, the Bengal Government, and the Legislative Council, as to their intentions in framing Chapter X of the Act. In their Despatch No. 6 of March 1882, paragraph 100, asking sanction to the legislation which eventuated in the Bengal Tenancy Act, the Government of India particularly pointed out that by far the most important of their proposals was "that a general field survey should be undertaken, and that a system of village records and accounts shall be introduced."....."Whether," they wrote, "we have regard to the prevention of famine or to waste of life or waste of money, which may result from official ignorance; whether we look to the need for actual administration which shall search out and expose deep-seated evils, or the need of some assurance that the facts affecting agricultural interests shall be so notorious and indisputable that none shall be able to pervert them to the injury of the weak, we perceive in the circumstances of many portions of Bengal, and particularly of Bihar, strong reasons for placing the Bengal officials on a level, in point of administrative advantages, with their brother officers in other provinces. We seek no fiscal advantages, but the prevention or diminution of human suffering." This evidence leaves no doubt as to what the intentions of the Government of India were when it first approached legislation on the subject; and as the despatch was published for general information, the zamindars had specific and early information as to what the intentions of the Government were in regard to the survey of Bihar. It will be manifest from what follows that the intentions of the Government in this matter were never altered, and that the zamindars for three years before the Act was passed were well aware that it was intended to effect a cadastral survey and record of rights. The intention was expressed in section 164 of the first edition of the Tenancy Bill, on which the Zamindari Associations reported in 1883. The intention was repeated in section 117 of the

\* Letter No. 73, dated 14th September 1884, from the Vice-President of the Tirhut Landholders' Association, to the Secretary to the Government of Bengal, printed on pages 521-536 of the Report of the Government of Bengal on the Tenancy Bill, 1884.

second edition of the Bill, on which they reported in 1884;\* and the provisions of section 101 of the Act as we have it now are not materially different from the corresponding sections of the Bill which preceded it. I would in this connexion particularly call attention to the following extract from the letter of the Tirhut Landholders' Association,

referred to on the margin, in which, speaking of the record of rights, &c., they quote with approval the following extract from the Minute of dissent which, as member of the Select Committee on the Bill, the Hon'ble Kristo Das Pall wrote in reference to these provisions:—

"The chapters relating to these subjects (Record of Rights, Settlement of Rents, &c.) are doubtless in accordance with modern ideas of land administration in periodically settled India; but as far as Bengal is concerned, the rights and interests of different parties are generally well defined, and where there might be disputes between landlords and tenants in matters dealt with in these chapters, common sense would suggest that the application of the law should be left to the self-interest of the parties concerned. But the essence of these chapters is that, while liberty is accorded to both landlord and tenant to move the machinery provided in them, the Local Government is empowered to bring of its own motion the machinery into action. \* \* \* And yet power is taken by the Local Government to order the preparation of table of rates for special areas, and to charge the landlords and tenants



with the cost of this work, though they may not in the least benefit by it. *In the same way the expenses which may be incurred by enforcing the provisions relating to record of rights and settlement of rents will be cast upon the landlords and tenants, though no application had been made by them.* Thus a new cess will be imposed upon the land for the purposes of proceedings which may do more harm than good to the landed classes."

The preceding observations of the zamindars' own Representative in the Legislative Council, fully concurred in by the Tirhut Landholders' Association, had probably escaped the attention of the Zamindari Associations in framing their present objection. They will now, however, perceive that they are, as a lawyer would say, estopped by their own admissions from again renewing these objections. As a matter of fact they had (and availed themselves of) the amplest opportunity of urging objections to the measures now under notice, and they will perhaps be therefore ready to concede what is, indeed, obvious, that further "special legislative sanction" is not required. The quotation I give from the Proceedings of the Legislative Council of the Governor-General in paragraph 26 below would be by itself a conclusive refutation of this most unhappy contention.

25. The next piece of evidence I shall site in support of the position that a cadastral survey and record of rights was one of the objects for passing the Tenancy Act, is the declaration of the Bengal Government, made in its letter No. 3T.-R., dated 24th May 1884, to all Commissioners of Divisions when the Tenancy Bill had assumed practically its final shape. Commenting upon Chapter X, the Government of Bengal said:—

"To the provisions regarding the record of rights and the settlement of rents, the Lieutenant-Governor attaches the highest importance, because it is the first earnest attempt to carry out what has often been contemplated, but never attempted, viz., to record by authoritative enquiry the rights in their holdings of the entire agricultural community in Bengal. The proposal is one of very great magnitude, and its execution must extend over a long period of years; but to its successful accomplishment alone can we look for the great administrative advantages which must ensue in the security of the cultivating classes in their possessions, and the establishment of proper relations generally between landlords and tenants. The Lieutenant-Governor specially requests that, with the observations upon them contained in paragraphs 71 to 77 of the Select Committee's Report, and in paragraphs 19 to 21 of the letter of the Government of India, the sections of this chapter may be carefully considered by you and by your Collectors, both with reference to the facts to be recorded, the adequacy of the powers taken for the purpose of ascertaining and recording them, and the appropriateness of the procedure for the object in view. He also invites your attention to section 116(2), and begs that you will give your careful opinion as to whether it is desirable that only a presumption should arise in favour of the correctness of facts ascertained with due care in the full light of publicity, and with ample opportunity to the parties interested to contest them; or whether it is to the general interest that the facts as ascertained (and if not all, then what facts) should be regarded as conclusively established for a certain specified period."

Here again there can be no doubt as to the intentions of the Government of Bengal, which were to make a survey and record of rights of the entire agricultural community of Bengal.

26. I now come to the debate in Council on the Final Report of the Select Committee on the Bill, after which it became law without any further change. This debate is most instructive, as it shows not only what meaning the Legislative Council itself attached to Chapter X of the Act, but also indicates what the zamindari representatives in the Council themselves understood to be its meaning and value—

"The Hon'ble Babu Peari Mohan Mukerji moved that sections 101 to 115 be omitted. He said:—'When giving his sanction to the provisions regarding record of rights, Her Majesty's Secretary of State expressed his apprehension that the difficulties of carrying out the measure may prove greater than the Government of India anticipated. But the practical difficulties of the measure are not the most prominent among its objectionable features. It would cause irritation among landlords and raiyats, and convulse rural society to an extent of which those who are not thoroughly acquainted with the details of our agrarian economy can have little idea. Landholders and raiyats alike have repeatedly prayed the Legislature to expunge these provisions from the Bill, as they would do good to neither. They involve an amount of expense and irritating enquiry which will be far from compensated by the result, and it is on this account that to no part of the Bill have the raiyats from different parts of the country offered more opposition than to this.'

"The Hon'ble Mr. Evans said:—'I do not agree with the hon'ble member. There is no doubt that when a record of rights is sought to be made over a particular area there will be a considerable amount of contest at the time. But when it has been made, every landlord and every tenant will really be better off, and these records will give facilities in dealing with

cases. If such a thing as a cadastral survey and record of rights is carried out over the whole of Bengal, it will remove a large source of litigation and uncertainty. Much must be left to the discretion of the Local Government as regards when and where and to what extent the survey and record is to be made. I stated my opinion on this matter when this Bill was referred to the Select Committee. I quite understand that friction must be produced to obtain it, but the ultimate benefit will be so great as to counterbalance the friction.

"The HON'BLE MR. REYNOLDS said:—'I think the hon'ble member has overlooked the fact that this chapter, which he desires to omit, will apply to Government settlements. The settlement procedure law is at present contained in Bengal Act VIII of 1879, which this Bill proposes to repeal, and I do not observe that the hon'ble member has any motion for the omission of that Act from the Schedule of Acts to be repealed. The result of this amendment would therefore be to leave the Government no means of conducting a settlement of revenue in Government estates, except the old Regulation of 1822. I do not think he contemplated any such result.'

"The HON'BLE MR. GIBBON said:—'I oppose the amendment. I think the chapter as now drafted in the Bill will be more beneficial to landlords than to tenants. In fact, speaking personally as a landholder, I look forward to the operation of this chapter to undo much of the harm which will be done to the landlord's interests under section 18. When it was first proposed, and as it stood in Bill No. II, I objected to this chapter, but the Select Committee has removed every objection I had to it, and I look forward to the beneficial effects of this chapter both in the interests of the landlord as well as in those of the raiyat.'

"His HONOUR THE LIEUTENANT-GOVERNOR said:—'I am glad to find from quarters so different a concurrence of opinion in favour of this chapter as one of great importance and necessity. For myself I would sooner omit very many other portions of the Bill than this one. It provides for the first serious attempt to secure that which is absolutely required, by means of a careful record of rights, not only for the better administration of the country, but for a better understanding between landlords and tenants of their respective positions. Until such a record has been made, we shall have made no progress in the settlement of disputes arising between landlords and tenants. The difficulties to which the hon'ble member refers are difficulties which I am sure we can get over. For if such difficulties have been overcome in a province like the Panjab, we need fear no serious difficulty in a province like Bengal. We are not intending to press on this process with anything like undue haste, or to force it on with undue precipitation. With the sanction of the Secretary of State and of the Government of India the utmost we should attempt in the first instance would be one single district, and we shall be guided much by the success we meet with in that district before proceeding further. I am sure I speak the conviction of the Hon'ble Rao Sahib Mandlik and of every person who comes from that part of India which he represents, when I say that, where a record of rights prevails, it has been found to be good and beneficial for all sections of the landholding community.'

"The HON'BLE SIR STEUART BAYLEY\* said:—'I can hardly be expected to accept a proposal for the omission of this chapter, in the settlement of which the Select Committee has taken an immense deal of pains, and which I think has been reduced to a shape in which it may be worked beneficially and without serious risk of danger to any one. The chapter covers very large ground and can be applied to various cases, individual and general; it may be applied to a tenure or part of a tenure or to a whole district. But I think there has been some misapprehension in the mind of the hon'ble mover of the amendment as to the Secretary of State's opinion, and I may be allowed to quote his words. He says:—

'While fully admitting the advantages which would attend the establishment of village records and accounts, the formation of a record of rights, and the introduction of a field survey, I cannot avoid the apprehension that the difficulties of carrying out these measures in those parts of Bengal in which village accounts and accountants, if they ever existed, have long ago entirely disappeared, even from tradition and remembrance, may prove greater than you anticipate. Your present proposal, however, merely contemplates an experimental commencement of the work in the Patna Division of the Province of Bihar, where the need for it is, you think, most pressing, and the conditions least unfavourable; and to this I will make no objection.'

"You have heard just now from His Honour the Lieutenant-Governor that this order of the Secretary of State is still in full force, and that at present he has no intention of going beyond it. Certain provisions of this chapter are of course applicable everywhere. A landlord in Bengal proper may apply to have these settlement operations brought into effect in regard to his estate or a portion of his estate; or on a riot taking place in any single landlord's estate, the Local Government may apply to the Government of India for permission to put it in force in that estate. But with regard to a general record of rights, not only is it distinctly understood that the Lieutenant-Governor will apply it only in some one selected district in Bihar and abide by the results of that experiment, but it is also certain that, as the Secretary of State has not sanctioned anything beyond that, nothing beyond it will be carried out until the Secretary of State does sanction it. The result I am unwilling to prophesy, but I do not say that, as in the neighbouring district of Benares the operation has been most successfully carried out without much friction, and has been the salvation of the tenant, a similar operation may be conducted in the province of Bihar, which is in almost all respects similar to the districts bordering it in the North-Western Provinces. I do not see why what has been worked so successfully in the North-Western Provinces should be inapplicable to

\* Sir Stuart Bayley was in charge of the Bill.

Bihar. There is one portion of the chapter to which further allusion will be made when the Hon'ble Rao Saheb Mandlik makes his proposal. I will only say that we look on the provision to which the hon'ble member's amendment refers (section 112) as particularly necessary to be kept in the Bill, but we hope sincerely never to have occasion to use it. It is a very strong power kept in the background, to be used when the operation of the ordinary law is not found sufficient. With these remarks I oppose the motion.

"His EXCELLENCY THE PRESIDENT observed that he had been very much struck by the almost complete unanimity of opinion which prevailed in the Council as to the utility of this chapter. At the same time he was perfectly able to comprehend the natural anxiety which its unreserved application over very extensive areas would occasion both to the raiyats and the zamindars. Regarding the question in the abstract, it was perfectly obvious that one of the first steps towards the cessation of litigation and ill-feeling between two antagonistic interests, was that they should each know exactly what belonged to them; therefore no one, His Excellency imagined, not even the hon'ble member himself, could in theory be opposed to the introduction of this chapter. At the same time His Excellency could assure the hon'ble member that not only in deference to the suggestions made to them by the Secretary of State, but also from their own appreciation of the exigencies of the case, the Government of India would be indisposed to consent to the application of the sections referred to, otherwise than in the sense and spirit recommended by Lord Kimberley. By applying the machinery of the chapter to a special and limited area in a tentative method, they would be able to observe how the clauses were likely to work, and there was every hope that by that cautious method of procedure they would be able to obviate those objections to which the hon'ble member had referred."

"The amendment was put and negatived."

This extract from the proceedings of the Legislative Council on the passing of the Bengal Tenancy Act shows what the views and intentions of the Legislature were on the meaning and application of Chapter X of the Tenancy Act. They were (1) that, in the words of the Hon'ble Member in charge of the Bill, "the chapter covers very large ground and can be applied to various cases, individual and general; it may be applied to a tenure or part of a tenure or to a whole district; (2) that "the machinery of the chapter was to be applied to a special and limited area in a tentative method," and if found to work successfully, was to be extended to the entire Province of Bihar; (3) that the Government of India were satisfied that "as in the neighbouring districts of Benares, the operations had been most successfully carried out without much friction, and had been the salvation of the tenant, a similar operation might be conducted in the province of Bihar, which is in almost all respects similar to the districts bordering it in the North-Western Provinces."

It is, I believe, in India a rule of construction of Statutes, that the intention of the Legislature may be inferred from the debates in Council on the passing of an Act. If this be so, then there can be no doubt, in view of the preceding extract from the debate in Council, that the expression "local area," as used in Chapter X of the Tenancy Act, may mean either a tenure or a whole district. And if this conclusion were still in doubt, it would borrow further confirmation from clause (d) of section 101, inasmuch as settlements of revenue are, as the Legislature well know, undertaken, not for estates alone, but also for whole districts such as Chittagong, and whole Provinces such as Orissa, both of which are now under settlement under Chapter X of the Tenancy Act. Moreover, under section 39 of the Act, price-lists have to be prepared for "local areas," and the unit of area for the purposes of that section is under the Tenancy Act rules, which have the force of law, a sub-division of a district. These rules were, before they acquired the force of law, published in the Gazette and circulated for criticism among all Zamindari Associations and other public bodies, but no objection was ever taken to them on the ground that a "local area" must mean "a limited area presenting some special features."

27. An experimental and tentative survey and record of rights was, in accordance with the undertaking given in Council, carried into effect under Mr. Collin's supervision, in a typical tract of the Muzaffarpur district, and was declared by the Governments of Bengal and of India to have proved successful. The Secretary of State agreed in this opinion,\* and subsequently, on the submission to him of proposals for the extension of the survey and record of rights to the whole of North Bihar, accorded his sanction to them. It is therefore manifest that the contention now raised by the zamindars is wholly without foundation, and that in all that has been done in this connexion, the

Page 52, Parliamentary Return, East India (Bihar correspondence), dated 17th May 1892.

\* Parliamentary Return (Bihar correspondence), dated 17th May 1892, page 53.

Government of Bengal has acted well within its powers, and in strict conformance with the letter of the law, and with its spirit as declared by the Legislative Council at the time the Act was passed.

I may finally call attention again to paragraph 9 of my Minute of 24th June last, in which the words of the Government of India were quoted directing the Bengal Government in 1884 to take in hand at once the organisation of the patwaris in Bihar, in view to their employment on the survey and settlement of that Province.

27A. After this paper had been put into print, I was requested by the Government of India to take the opinion of the Advocate-General as to the interpretation to be placed on the term "local area" in Chapter X of the Tenancy Act. The Hon'ble Sir Charles Paul having been accordingly consulted by the Board of Revenue, gave the following opinion:—

Section 101 of the Tenancy Act is divisible into two parts—

- (1) Where a survey is ordered by the Local Government with the previous sanction of the Governor-General in Council.
- (2) Where a survey is ordered without such sanction in certain specified cases [clauses (a), (b), (c) and (d)].

With regard to (1), a survey may be ordered *in any case* in respect of lands in a local area. This in my opinion, regard being had to the general terms used, authorises the survey of a province, district or sub-division of a district.

With regard to (2), a survey may be ordered of the lands of a local area which, in my opinion, should be limited by the object in view, denoted by the occasion or cause which necessitates the exercise of the powers conferred on the Local Government. These occasions or causes are mentioned in clauses (a), (b), (c) and (d).

This opinion confirms what I had written, and the latest objection of the Zamindari Association is thus shown to be devoid of foundation and unworthy of any further notice.

28. In paragraph 7 of their memorial [see marginal note to paragraph 7 above, head (f)], the zamindars now say: "Had section 101 with its express limitation of 'local area' been intended to apply to a Government survey of a whole province, or of the greater part of a Province, provision would have been made in the Act for maintaining and keeping up to date the records of such survey, but no such provision is made." I welcome this statement: it is as full an admission as the zamindars could be expected to make, that the maintenance of the record of rights is the logical consequence of its preparation. But the memorialists are wrong in thinking that provision should have been made in the Tenancy Act for maintaining the record. The intention of the Government, before and at the passing of the Tenancy Act, was that there should be special legislation for creating a Land Record agency, and the Government of India in its letter No. 196A., dated 20th November 1884, instructed the Lieutenant-Governor to undertake such special legislation in the Bengal Legislative Council. The words of the Governor-General in Council are—

"It is hardly necessary to remark that the value of the survey and record of rights (under the Tenancy Bill) will be incommensurate with the cost unless an efficient staff of patwaris and supervisors is organized. \* \* \* If it be decided to commence operations in 1885 or 1886—and on this point the Government of India will expect to be advised hereafter by the Government of Bengal—His Excellency the Governor-General in Council trusts that no effort will be spared to obtain at an early date the requisite legal powers to organize the patwari staff, and that the work of organization will be vigorously prosecuted."

In accordance with those instructions, I introduced the Patwari Bill into the Bengal Legislative Council on the 31st January 1885 (that is, before the Tenancy Act was passed) as a supplementary measure. My words were: "Without this supplementary measure the Tenancy Bill will fail of its full beneficial effect in Bihar, where its beneficial effect is most needed." The Bill was not sanctioned by the Secretary of State for a reason which no longer operates: but the steps taken in 1885 clearly show the fallacy of the argument of the Zamindari Association on this point.

29. The preceding observations have shown, on the authority of the

Summary of arguments as to historical and legal justification for the record of rights in Bihar.

Regulations and Orders of the Government of the day, that from the beginning there never was on its part any intention to interfere with, abrogate or annul the rights of the raiyats; that under the arrangements made by Lord

Cornwallis it was intended to record and uphold their rights by enjoining on the zamindars to deliver pattas to them, renewable for ever at pargana rates, to maintain patwaris and to register the unit of measurement; that the pattas were not delivered nor the patwaris maintained; that it was attempted to correct these omissions and wilful negligence by the enactment of Regulation XII of 1817; that this measure having also proved nugatory, it was proposed in 1822 to carry out a record of rights, similar in character to that we are now undertaking in Bihar; that the Court of Directors cordially approved of this proposal; that the measure was not carried out because of the want of suitable agency at the time; that the matter was again taken up in 1882 with the express object of effecting a record of rights throughout the whole of the Lower Provinces of Bengal, but *particularly in Bihar*; that when the Tenancy Bill was on the point of becoming law, the Bengal Government was directed to take immediate steps to reorganize the Patwari system in Bihar with the object of maintaining the record in that province; and finally, that on the declarations of the Government of Bengal, the Government of India, the Secretary of State, the Legislative Council, and the Hon'ble the Advocate-General, there cannot be any doubt as to the applicability of the Survey and Settlement provisions of Chapter X of the Tenancy Act to entire districts as well as to any portion of them, or as to the intention of applying them to the entire province of Bihar. From the historical and legal point of view, then, the right of the Government to make this survey and record of rights throughout Bihar, and to maintain the record when made, is incontestable.

### PART III.

#### NECESSITY OF THE SURVEY AND RECORD OF RIGHTS IN BIHAR.

##### *Section I.—Before the passing of the Tenancy Act.*

30. The preceding part of this Minute was concerned with the relative rights of raiyats, zamindars and Government under the Permanent Settlement, with a discussion of the manner in which the rights of the raiyats had been infringed, and of the attempts made by the Government from time to time to afford them protection. Reference has also been made to the tardy objections (now declared by the Advocate-General to be unfounded) to the survey raised on the wording of section 101 of the Tenancy Act, and it was shown that from the very first inception of the Bill, which is now Act VIII of 1885, it was the settled intention to make a survey and record of rights in the Patna Division. From that

Necessity for the record of rights in Bihar. intention the Government of India never wavered, and in drafting the Act such language was used as was deemed suitable to give the intention its full effect. I now proceed to consider the question whether it is, as matter of practical expediency, necessary or desirable to make such a survey and record of rights. The necessity is being daily denied by the zamindars and their advocates, while the raiyats are voiceless and the Government averse from entering the dusty arena of newspaper controversy. The story of the hardships of the Bihar peasant is a thrice-told tale, which it would be unnecessary to repeat were it not that we have on the side of the raiyats nothing but ignorance, poverty and helplessness, while we have on the side of the zamindars education, wealth and power, and all the trained intelligence and advocacy that wealth can purchase. I deem it necessary, therefore, for I trust the last time, so far as I am concerned, to re-state the evidence on the point.

31. It is unnecessary for my present purpose that I should retrace the condition of Bihar further back than the famine year of 1874. In that year there was a more or less severe failure of the crops throughout the whole of Bihar, the failure being greatest in the district of Tirhut. So impoverished were the raiyats of that district, so utterly without resource, and so unable to bear up against the failure of a single season's crop, that one-third of the population was at one period in the receipt of relief from the Government. Had it not been for the relief operations set on foot by the State, at least half a

Material condition of the Bihar tenantry.

## The Famine of 1874.

million people would have died of starvation in this single district. The financial effect of the relief operations in the single Darbhanga district is thus described in the report of the Director of Agriculture in Bengal for the year 1885-86 :—

“In 1874 a scarcity occurred in Darbhanga—a district which is one of the most fertile, best cultivated, and highly favoured by nature in all India. It was necessary for Government to expend in that year, by way of charitable relief, no less than 37 lakhs of rupees in cash, and to expend 118,000 tons of grain, valued in Burma at nine pounds sterling per ton, thus costing in all more than one hundred and twenty lakhs of rupees. If to this be added the cost of freight from Burma, the cost of transport to Tirhut, and the cost of famine establishment there employed, and if the amounts realized by sale of part of the grain be allowed as a set-off against these latter items, it follows that it will not be too much to put down the net cost of famine to Government in a portion of this single district at a crore and a half of rupees, the Government revenue of that part of the district as it then stood (the boundaries have since been changed) being less than five lakhs per annum. It thus appears that the famine expenditure on this district, in one year, was more than thirty times the amount of the Government revenue, or far more than its capitalized value.

The revenue of the district as it now stands is a little over seven lakhs, and the rental was Rs. 71,37,044 according to a valuation made in 1883 (it is now 10 per cent. more, or eleven times the Government revenue as shown in paragraph 15 above. This enormous unearned increment, amounting to about one hundred-fold the zamindars' income, as taken for revenue assessment purposes three generations ago, has, with very few exceptions, been secured without any expenditure of capital by the landlords, without their having fulfilled many of the obligations which English notions of landed property attach to the ownership of land. I do not make this a special ground of complaint against Bihar landlords. They are what their training and environment have made them. But I do say that this enormous enhancement of rents, which the law had fixed in permanence, has helped to reduce the raiyats to a very precarious condition, and that it should now give them the greatest claims upon their landlords' liberality. The vicissitude of a single season, the early cessation of one year's rains, brought the entire district across the threshold of disaster twenty years ago. The population is now denser than in 1874, all efforts to promote emigration have failed, and the people have less to fall back upon, as their rents, which were high in 1876, amounting to 63 lakhs of rupees, have since risen to 78 lakhs, or by nearly 25 per cent. A reference to pages 8 and 73 of the Government of India blue-book of 1892, on “Prices and Wages in India” (ninth issue), will show that within this period prices of staple food crops have risen by not less than 12 per cent. As there was in 1876 little or no room for extension of cultivation, it seems to follow that rents in Darbhanga have since the Famine been enhanced at least twice as much as the law contemplated they ought to be. If it be remembered that the failure of the *kharif* crop of 1874 brought a million of hungry people on our hands in the single district of Tirhut, who, if the Government had not come to their aid, would have starved, and that since 1874 there have been no less than four scarcities in the district, necessitating the distribution of relief by Government, the full significance of these unprecedented enhancements of rent will be appreciated.\*

32. In the autumn of 1875 there was again a slight failure of the crops

Enquiry into the material condition of the people of North Bihar in 1875.

in North Bihar, and careful enquiries were made into the condition of the people. The results were very disquieting, and Sir Richard Temple's Government, in communication with the Government of India, appointed a Commission, consisting of the late Mr. Geddes and myself, to enquire into the whole agrarian condition of North Bihar. We reported in 1876, and I invite special attention to the following remarks by Mr. Geddes, in which I concurred. Mr. Geddes was, I may add, an officer of altogether exceptional competency for an enquiry of the sort :—

“How comes it that, with the present not very grave vicissitude of season, the Imperial Government should be expected to interpose in regard to a most fertile region, the great bulk

\* During the famine of 1874, the great Darbhanga estates were under the management of the Court of Wards, and the management did as much as could be expected to relieve the starving tenantry. After attaining his majority, the Maharaja, Sir Lachmeswar Singh, approved of all that had been done, and is thus justly entitled to the praise attaching to public beneficence. The same remarks apply, though in a modified degree, to the Maharaja of Hatwa, Sir Krishna Irtab Suihi, and the late Maharaja of Bettia. In Champaran, however, and in Saran, the scarcity was much less than in Darbhanga.



of whose agricultural profits go elsewhere than to the Imperial Exchequer? How comes it that Bihar, with an industrious population, the most fertile soil in India, a territory comparatively very lightly assessed in land tax—how comes it that this Bihar should be seeking imperial relief oftener and more extensively than the regions less fertile and far less (more?) heavily assessed by Government? \* \* \* “The explanation as to why the three northern sub divisions should not tide over the vicissitude by falling back on food reserves, or on money resource, summarises itself briefly thus. The whole conditions of agricultural industry there are such as to render it precarious. There is no sufficient certainty as to tenure. It is impossible for the population to fall back this year solely on accumulated reserves, whether of grain, of property, of money, or of credit. For the whole conditions of life, as will be seen from the Collector’s reports, are such as to preclude any sufficient accumulation of the kind. The raiyats cannot fall back on any credit fund like the tenant-right of other parts of Bengal, for practically there is no such right available to offer in pledge. The people who plough and sow, and who ought to reap, have not a reasonable assurance as to the fruits of their industry.”

Mr. Geddes went on to describe the unsatisfactory character of rent suits in Bihar, and the *thikadari* or farming system, consisting in the assignment to rent speculators of the control which the landlord is able to exercise over the tenant, including therein almost unlimited powers of distraint, enhancement and ejectment. The report also alluded to abuses connected with the cultivation of indigo, and reasons were given for the inference that in Muzaffarpur and the northern sub-division of the Bhagalpur district one-third of the culturable area was under *thika* assignment to indigo planters. The practice of illegal distraint, or of sending out bailiffs to prevent the reaping of the crop, as a means of pressure in order to enforce compliance, whether with legitimate demands or exactions, was very fully described; and the points where violations of the law habitually occurred were specified with precision. The general effect was to show that in North Bihar the raiyat had practically no rights allowed him at all, and that all the worst abuses of the days of Regulation VII of 1799 prevailed throughout a region where Act X of 1859 had been nominally in force for nearly 20 years.

Sir Richard Temple, in reviewing Mr. Geddes’s Report, remarked that the condition of the peasantry was undoubtedly low in Bihar,—lower than that of any other peasantry with equal natural advantages which he had seen in India. He considered that a remedy should be applied to the abuse of the power of distraining the raiyats’ crops. The Government of India promised the Lieutenant-Governor its support in any measures he might propose for ameliorating the condition of the people of North Bihar; and the observations of the Secretary of State\* upon this correspondence were as follows:—

“Your Lordship in Council is fully aware that the situation in North Bihar is one of grave anxiety. The well-being of the population is described in the able report of Mr. Geddes as resting on foundation of a very precarious character, and it will demand the utmost vigilance and discrimination of the Government of Bengal to deal with the complication with which the whole question is embarrassed. Your Excellency in Council has wisely determined not to have recourse to immediate and necessarily incomplete remedies, but to leave the subject to the attentive consideration of the Government of Bengal, which will gradually introduce such ameliorations as full experience and extended inquiry may dictate. I fully approve of the resolution of Your Lordship in Council, and shall await with interest the result of the measures which the Lieutenant-Governor, under the sanction of your Government, shall deem it his duty to adopt.”

33. The measures adopted by the Lieutenant-Governor (Sir Ashley Eden) consisted in the appointment of a Committee of Bihar officials and non-officials to consider the whole question of the relations of landlord and tenant in that province. Meanwhile, the zamindars of Bengal, unlike their fellow landlords of Bihar, were being worsted by their raiyats, and were pressing for special facilities for the realization of their rents. Following the precedents of former years, a Bill for the more summary realization of rents was introduced into the local Council; but times had changed: the sufferings of the raiyats had touched the conscience of the Government, and it was recognized that the rent question had become the great question of the day, and that the time had come for dealing with it in a full and comprehensive manner. Accordingly the Bill just referred to was withdrawn, and the whole question of the rent law of both Bengal and Bihar was referred to a Commission. That Commission produced the first draft of

Opinion of the Government of India on the material condition of Bihar in 1882.

the Bengal Tenancy Act, and the Government of India in 1882, in recommending legislation on the lines of the draft to Her Majesty's Secretary of State, wrote of the depressed condition of the Bihar tenantry thus:—

“The evidence before us of the depressed and precarious position of the tenantry in that part of India is full and conclusive. It would be altogether a mistake to suppose that the unfortunate state of things which there exists is mainly, or even very largely, due to indigo planting. The facts connected with the cultivation of indigo, which were brought to notice some years ago, testify indeed to the possibility of serious oppression, and strikingly exhibit the manner in which persons exercising the authority of landlords could trample upon the rights of defenceless peasants. But these facts, taken by themselves, merely illustrate abuses of proprietary power which are rife throughout Bihar. The area under indigo cultivation is an insignificant fraction out of the 23,670 square miles which constitute the Patna Division. It is manifest that the majority of the raiyats in the whole of that large tract of country are rack-rented. The raiyats of the Shahabad district appear to be better off than others; but for a general view we would refer Your Lordship to the note drawn up by Mr. Reynolds on the 11th December 1880, after a visit to Bankipore, during which he had conferred with experienced officers. It was urged upon him that the great evil which calls for remedy in Bihar is the arbitrary enhancement of rent at the will of the landlord. The Collector of Patna reports that the mass of the tenantry are now paying rents which have doubled within the last 16 years. The Covenanted Deputy Collector of Gaya calculates that the rental of the different districts is at present from twice to four times the amount paid at the time of the Permanent Settlement. Mr. Reynolds shows from the road cess returns that the incidence of rent is higher in the Patna district than in any other district of Bengal; higher in Darbhanga and Saran than in any other districts except Hooghly and Burdwan; and higher in Gaya, Shahabad and Muzaffarpur than in any other districts except the above and five more, of which two, Rajshahi and the 24-Parganas, pay the same average rental as Gaya, and one (Rangpur) pays the same average rental as Shahabad. The only district of the Patna Division, where the average rental does not appear to be unusually high, is Champaran, of which the circumstances are exceptional, as the proportion of waste land is very large.

“Without entering upon any detail in support of our opinion that the Bihar raiyat is poor and oppressed, we will cite briefly a few descriptions of prevailing circumstances or practices given by zamindars or planters themselves. Major Hidayat Ali, an important landholder in Bihar, writes on 20th September 1877: ‘The raiyats of this province, viz., the heads of families, and even the women and the male adult children of the agricultural classes, though they labour hard, are yet in a state of almost utter destitution, and that owing to the heavy assessments laid on them.’ His opinion is characterised by Colonel Emerson, the Cantonment Magistrate of Dinajpur, as unprejudiced and valuable. Mr. Worsley, Collector of Muzaffarpur, reports on 9th October 1877—

‘That illegal distraint was universally practised in this district I well know, but I had not expected to receive the following naive confession from all the principal zamindars of Hajipur sub-division: ‘The zamindars confess that they resort to private distraint in preference to distraint through the Court, the latter involving expense which has to come on the raiyat, and diminishing his means of paying his legitimate dues, as well as of leaving a sufficient balance for his own support.’”

The rest of the quotation is connected with a description of abuses in connexion with indigo planting, many of which have been remedied through the influence of the Indigo Planters' Association.

34. This, it will be admitted, is no measured condemnation of the whole land and rent system of Bihar, but it was not so forcibly put as it might have been had the Government in 1882 been in possession of the detailed information which came to light a few years later. At the risk of anticipating what I have to say regarding the condition of Bihar after the Tenancy Act had become law, I reproduce this information here. In paragraph 11 of my Minute of 24th June, I stated the circumstances under which Mr. Collin was appointed to carry out an experimental survey and record of rights in the Muzaffarpur district. The report, which after his operations were brought to an end, Mr. Collin submitted, is a most valuable document, and throws a flood of light not only on the past practices and existing condition of Bihar, but also demonstrates beyond reasonable doubt the benefits which the raiyats will derive

from a survey and record of rights. Mr. Collin's report,\* which was submitted to Government in 1887, shows that in the tract settled by him, which was selected as being typical of the worst difficulties to be anticipated in the Muzaffarpur district, rents had been illegally and arbitrarily enhanced out of all proportion to what is justified by law, and that this illegal and arbitrary enhancement, as might naturally be expected with an increasing population, had gone on during the 10 years

Material condition of Bihar immediately before and after the passing of the Tenancy Act.

\* Printed on Parliamentary Return, dated 17th May 1892.



before 1887 to even a greater extent than was previously the case. The general principle which usually regulates legal enhancements of rent in these Provinces is known as the Rule of Proportion, and it depends on the rise in prices of staple crops. Under this rule the enhanced rent must bear to the former rent the same or a less proportion than the existing prices bear to prices at the time the former rent was fixed. Now in the period dealt with by Mr. Collin the rise in prices was 29 per cent. (paragraph 70). Yet he found the increase in rent rates in one village, named in Appendix F of his

report, to be 314 per cent. since 1840, the average increase in 33 villages named in that Appendix was 137 per cent., and the average increase in 36 villages named in Appendix G 116 per cent. (paragraph 69). This enormous increase in rates was unconnected with extension of cultivation, which was taken into account in striking the rates, or with improvement in productiveness of the soil (paragraph 69), and was doubtless effected by extra-legal means.

35. Mr. Collin brings to notice that periodically recurring enhancements of rent had only come into vogue since 1840 (paragraph 68), and he draws attention (paragraph 9) to the very significant fact that it was also in 1840 that the zamindars adopted the system of giving thika leases or assignments of villages at high rents. What that meant will be apparent from the remarks made in paragraphs 34, 36 and 46 of this Minute. There is no doubt that these enhancements stand to these assignments as effect to cause. It was the rare thing for a Bihar zamindar to sue for enhancement in the courts. One way of enforcing an enhancement is described in paragraph 36 below, or, if the owner wished to be saved the trouble of that, he often gave a lease of the village to a thikadar or farmer, if indeed the mere threat to give the village in lease was not sufficient, as it very often was, to reduce the raiyats to submission. This system of leasing or assigning the rents of a village, with power to the assignee to exercise the full authority of the landlord during the currency of the lease—the *thikadari* system, as it is called—has been the curse of Bihar. How far it has been used to compel raiyats to grow a particular crop against their will I do not now stay to consider; but if this compulsion still exists, I do not attach to it anything approaching to the evil effects on the people which has been produced by the continuous worrying and excessive enhancements of their rents which have been effected through this bad system of land management. I have heard it maintained that the prosperity of the indigo industry depends on the continuance of this *thikadari* system, and that under the European planter the system is shorn of many of its evil attributes; that rents are not raised, nor illegal exactions, enforced, nor the raiyats exposed to the rapacity of money-lenders or other members of the horse-leech tribe. I do not deny that there are farmers and farmers; and probably most indigo planters are considerate and helpful landlords. But I do think that the industry would thrive better if it could shake itself free of the *thikadari* system, and I do not believe that the raiyats will ever be adequately protected from its abuses until a record of their rights is made and maintained.

36. That the system of illegal and arbitrary enhancement was in 1887 still in operation in Bihar is shown beyond dispute by the facts mentioned in paragraphs 73 to 80 of Mr. Collin's report, and in his remarks on Appendices F and G. An examination of these Appendices will show that in village Kamtowl the rates all round were raised in 1876 and again in 1884 to 230 per cent. over the rates of 1840, in Burdaha by 46 per cent. since 1885, in Kinaru by 11 per cent. since 1880, in Balra Karum Chand by 90 per cent. since 1877, in Chowsewan by 65 per cent. since 1880, in Bishunpore Bhagwan by 16 per cent. since 1880, and in Panapur Khoord by 24 per cent. since 1883. A striking instance of the helplessness and ignorance of the raiyats is given in paragraph 72, where it is stated that an occupancy raiyat, holding at Rs. 3 per bigha, and entitled by law to hold at that rate, yet took in the year 1884-85 a lease for three years, by the terms of which he agreed to pay Rs. 6-14 per bigha, to give up his land at the end of that period and at any time during the currency of the lease, and further contracted not to build any house or cowshed or farm building on his land, or to dig a well or to plant trees, all of which things he is, it is true, entitled to do under the Tenancy Act, with or without his landlord's consent, and notwithstanding such agreement,

Further evidence of continuation of excessive rent enhancements after the passing of the Tenancy Act.

but which he will not do, and will not know of his right to do, unless his rights under the Tenancy Act are brought home to him by the prosecution of a survey and record of rights. A still more striking instance of the methods by which rents are being enhanced by landlords is mentioned in the same paragraph, where it was reported in July 1887 that the agents of a certain zamindar "were attempting to induce the raiyats to execute agreements to pay enhanced rents." A number of Muhammadans refused, and the zamindar's agent, in November last, went to the village to reason with them. The day after his arrival a case was put in against the Muhammadans for the slaughter of a bullock. The case was found to be false. In February last a case was brought against some other raiyats in the criminal courts. These raiyats executed agreements (*sharahnama*s), and the case was compromised. In March an attempt was made before the Registrar at Muzaffarpur to have a *sharahnama* registered, which the raiyats would not admit to have executed. The Registrar found that most of the raiyats were not present when the deed was said to have been executed by them, and that their signatures had been written by the patwari. Again, in April another criminal case was filed against a refractory raiyat, which was dismissed. "This is, perhaps," adds Mr. Collin, "as good an instance as any that could be given of the operation of free contract, by which the raiyat, in his generosity, voluntarily consents to forego a part of the profits of his land."

Such was the state of things before and for two years after the Tenancy Act was passed. I shall presently show that there has been practically no amendment up to date; and that, unenforced by executive action, the Act has remained as much of a dead letter in Bihar as Act X of 1859 had done.

37. I conclude my references to the condition of Bihar before the enactment of the Bengal Tenancy Act of 1885, by quoting the remarks of the Famine Commission of 1880 on the state of Bihar. After describing the various abuses found to prevail in Bihar, which they visited, and suggesting remedies, *prominent among which was a survey and record of rights*, the Famine Commission remarked: "Where, as in Bihar, the relations of landlord and tenant are too often those of a high-handed proprietary body on the one hand, habitually disregarding the law, and on the other a tenantry ignorant, very helpless, sunk in the most abject poverty, the onus of bringing complaints of oppression ought not to be laid upon the tenants. The first and imperative duty of the Bengal Government and the local officials would seem to be to guard zealously against infringements of the law by the rich, and to put them down as if they were offences against the public peace."

Proposal of the Famine Commission regarding Bihar. Record of rights recommended.

Page 121, paragraph 37 of their Report.

38. Before I pass on from this part of the subject it may be useful to compare the condition of Bihar as it is at present with what it was a hundred years ago in the early days of British rule. There is a large element of uncertainty in all such comparisons, especially when applied to periods so removed from each other by lapse of years, and so differentiated by growth of population and its pressure on the soil. But such comparisons are instructive and point an useful moral. The following extract from Mr. Grant's Analysis of the Bengal Finances (1788) shows how things were a century ago:—

"Generally, the Soubha of Bihar derives its superiority over most of the other provinces of the Mogul Empire, from the great natural advantages of a temperate climate, high and fertile soil, well watered, productive of the drier grains and all the luxuries required by the more active, warlike inhabitants of the north; with a central situation, having easy communication internally, and serving as an emporium, or by means of the river Ganges, a thoroughfare to facilitate the commercial intercourse between Bengal, as well as foreign maritime countries, and the more interior provinces of Hindustan. These advantages drew arts and manufactures from abroad; and after the Pathan conquest produced an increased population in soldiers or emigrants of that martial agricultural people, who were induced to become settlers, either from local allurements, or the political encouragement of Government, in establishing a national feudal militia towards the eastern imperial frontier. The revolution in favour of the royal descendants of Timoor, first brought about in 933 Hejrah, or A.D. 1527, and finally effected on the accession of Akbar in 963 of the former, or 1555 of the latter era, with the regular civil administration established then, and ever since continued in almost its original form, heightened greatly the prosperity of the Soubah, under the crown of Delhi;

while the independent state of numerous Mussalman jagirdars, joined to the refractory spirit of a hardy warlike race of Hindu land-holders and peasantry, differing greatly in bodily temperament, nourished by the heartier food of wheat and barley, from their effeminate neighbours of Bengal, living chiefly on the watery diet of rice, served in some measure to preserve internal tranquillity and resist the tyranny of lawless foudari usurpers in time of recent public anarchy.

"Accordingly, agriculture, manufactures and commerce have always highly flourished in this favoured province. Opium, which may be considered the peculiar produce and staple commodity of the country, might fairly be estimated to return in gross, under rules of a private or public monopoly of necessary existence everywhere in India, twenty lakhs of rupees for about four thousand chests exported yearly; including a moderate charge of sovereign territorial rent, with full cost of labour, and profit on stock, amounting in value to one-half of the whole quantity produced. Saltpetre, manufactured chiefly in the Circars of Hajeeper and Saran, reckoned at two lakhs of maunds, might moderately be calculated to yield to the labourer and sovereign, or favoured merchants, ten lakhs of rupees; cotton cloths for exportation on all sides, twenty additional takhs; while the ordinary productions of grain, sugar, indigo, oil, betel-leaf, &c., carried out for sale, returned at least fifteen lakhs more, after deducting an equal sum for the annual imports of Bengal; salt being almost the only article required from abroad for home consumption: thus leaving perhaps on the whole a clear balance of trade to the Soubah of fifty lakhs of rupees to answer a yearly drain of specie to the like amount, constituting the net tribute to be derived from a gross rental of near a million sterling per annum; besides a profit of ten lakhs, accruing from the usual State monopolies of opium with saltpetre. And all this, after complete comfortable subsistence, on the most ample equitable scale of political economy in Asia, of a population probably of three millions of souls, exclusive of the Civil and Military establishments necessary for the internal administration of the province. It may further be observed that, if such were the affluent circumstances of the country under the despotism of the Moguls, its mercantile prosperity forming the basis of actual wealth and revenue, hath surely not diminished within the period of the freer, more lenient government of its present rulers, as might be sufficiently evinced by reference to the Custom House accounts of Patna during the term elapsed, exhibiting comparatively a view of great increasing commerce."

What the condition of things is now is indicated by the result of the enquiries which, entirely unconnected with the operation of the Rent Law, Lord Dufferin instituted in 1888 into the condition of the poorer classes throughout India. Enquiries were then made in typical villages, in every district and subdivision in Bengal and Bihar. The actual rents and areas of holdings and population in these villages were ascertained, together with profits of cultivation, extent of indebtedness, cost of food, of clothing, and of general subsistence, and the result was declared by the Commissioner of Patna to be that 40 per cent. of the population of the division, which contains 16 million souls, were insufficiently fed, to say nothing of clothing and housing; that they had to undergo long fasts, having for a considerable part of the year to satisfy themselves with one meal a day.

Now my own belief is that this picture is greatly overdrawn, and that in average years the destitution is not nearly so great as was supposed in 1888. But there is still no doubt that the condition of a considerable portion of the people of Bihar has deteriorated, that it is now precarious to a degree, that many live from hand to month, and that owing to over-population and excessive rents, a slight vicissitude of season would bring them in vast numbers on the hands of the Government for relief.

39. While the Bihar raiyat was in 1788 described by Mr. Grant as

Comparison of material condition of Bihar zamindars in 1788 and 1888.

prosperous, the Bihar zamindar was, on the other hand (see Appendix No. 5 to Mr. Shore's Minute, dated 18th September 1789), in a degraded condition compared with the zamindars of Bengal; "unnoticed," says Mr. Grant, "by Government, and left at the mercy of the annals or farmers. They, in fact, considered themselves proprietors of only a tithe of their real estates." Since then the circumstances have entirely changed. The Bihar zamindars, when they have not squandered their substance in extravagance, are now rich, their income from the land having, as shown in paragraph 15 above, increased stupendously in three generations. They are powerful and united, and have advocates in the Press and in the Legislatures both here and in England. Every prejudice that can arise from possession of great wealth or from European ideas of property is entirely on their side. On the other hand, the condition of the raiyats has become most lamentable. In Sir Ashley Eden's words, which are truer now than when they were uttered 15 years ago, they are "poor, helpless, discontented men, bound down to a state of extreme depression, tenants of the richest province in Bengal, yet the poorest and most wretched class in the country."

It has been contended that exaction of excessive rents and insecurity of tenure have had nothing to do with bringing about this state of things, which, it is said, is all due to over-population. If there were fewer people in Bihar they would doubtless be better off than they now are, but at the same time I point out that the Bengal districts of Dacca, Backergunge and Mymensingh, where rents are not excessive and where the people are prosperous, well-fed and well-clothed, are more densely populated than Darohanga, Champaran and Gaya, where 40 per cent. of the population, according to the estimates of 1888, but let us say only 20 per cent., subsist on one meal a day. Over-population no doubt has much to do with the poverty of the Bihar raiyats, but there can be as little doubt—every competent witness, official and non-official, admits it—that insecurity of tenure and rack-renting are largely responsible for the difficulties with which we are now, and have been for twenty years, confronted, in connection with them. We *cannot* deal effectively with over-population; our best efforts to induce the people to emigrate have proved failures, for emigration is a plant of very slow growth, which cannot be forced. We *can* by means of the record of rights deal effectively with illegal enhancements of rent and illegal ejectments, and on these facts who can say that we ought not to hasten the completion of a work from which such good results are to be expected?

NECESSITY OF THE SURVEY AND RECORD OF RIGHTS IN BIHAR—*continued.*

*Section II.—After the passing of the Bengal Tenancy Act (VIII of 1885).*

40. So far I have dealt with the condition of the raiyats of Bihar before the passing of the Tenancy Act in 1885. The evidence as to the intolerable nature of the abuses which prevailed in the province was conclusive, and suitable remedies were applied in the Tenancy Act. The remedies applied were of two kinds. The first kind consisted chiefly of legislative declarations conferring greater fixity of tenure, provisions regarding receipts, and limitation on enhancements of rent. The second or executive remedies, as they may be called, consisted in the record of rights which had been recognized in 1822, after all other possible means had failed, as indispensable, and had been recommended by the Famine Commission as the only certain way of securing to the Bihar raiyats the enjoyment of the benefits of security of tenure at fair rents, which the law assigned him. It is now alleged by the zamindari advocates that the first kind of remedy is sufficient without its executive complement; and shutting their eyes to the lessons of the past, they say that without executive action the raiyats will henceforward, by the mere operation of the Tenancy Act, have all the protection they stand in need of. In my reply to their memorial at Muzaffarpur, I differed from that view, and said that “the record of rights was far more important to the raiyats than the recent change in the organic written law; for the written law among an ignorant, struggling people remains a dead letter—witness Act X of 1859—unless executive action steps in to do for the people what they cannot do for themselves. This is the justification of Chapter X of the Tenancy Act, as it is of protective agrarian legislation wherever it has been undertaken.” But I shall not content myself on this occasion with utterances which may be criticized as academic. I proceed to show that the amended Tenancy law does as a matter of fact afford no sufficient protection to the depressed and ignorant raiyats of Bihar, that its most important provisions have been already systematically set at naught by the zamindars, and that since its enactment in 1885 the same illegalities have prevailed as before. If I can do this, the necessity of a survey and record of rights will not, I presume, be any longer contested even by partizans, nor doubted by careless observers.

41. I begin with the provisions of the Tenancy Act regarding receipts for rent. It has been asserted that these provisions, which required the landlords to give receipts to their tenants, specifying the area of the holding and amount of the rent, would in the long run have the same effect as a record of rights in certifying to the raiyats the amount of the landlords' demand upon them and the areas and incidents of their holdings, and that these receipts would in the course of time furnish the Civil Courts with trustworthy evidence on which disputes might be adjusted and arbitrary enhancements checked.

Improvement in Rent Law  
affected by Bengal Tenancy Act.

Improvement in connection with  
receipts for rent: nugatory.

This I say has been asserted; but on historical grounds was the assertion reasonable? If Lord Cornwallis' injunctions upon zamindars to adjust the rights of the raiyats by the grant of pattas proved to be wholly ineffectual, was it reasonable to expect that the same object could be effected by an injunction to grant receipts? If for 100 years we had failed to compel zamindars to give in pattas information as to the area of the raiyat's holding and the amount of his rent, were we likely to succeed by merely enjoining on them to give it in receipts? The Bengal Government, when engaged on the Tenancy Bill, was under no such delusion, and pinned its faith, as regards Bihar especially, to the record of rights.

42. But passing from the region of speculation to the domain of fact, what has actually happened? These things have happened. Mr. Collin found that, after the passing of the Tenancy Act, receipts in the prescribed form were not being generally given by native landlords; that where they were in some cases given, fictitious rentals had been entered in the landlord's part of the counterfoil receipts; and that the provisions regarding granting of receipts were in reality being had recourse to in order to fabricate evidence to show that rentals in excess of what were really paid were the then existing rentals, and that unless and until the raiyat becomes an educated man with a knowledge of his rights and power to enforce them, or unless and until the area and incidents of his holding and the amount of his rent are certified to him by a public officer in the manner contemplated by Chapter X of the Tenancy Act, he will continue to be in the hopeless condition that he occupied before the Act was passed.

Evidence of Local Officers as to continuance of abuses against which Tenancy Act was aimed.

Again the Hon'ble Mr. Stevens, who was Commissioner of Patna in 1890, wrote thus:—

Years.	Books.	Forms.
1885-86	102	60,023
1886-87	934	900
1887-88	184	31,000
1888-89	691	36,200
1889-90	150	13,700
1890-91	277	14,900

given in the margin. Many zamindars, among whom is the Maharaja of Dumraon, now prefer to make their own arrangements for these forms; but it is feared that a considerable proportion, especially of the smaller landlords, neglect the law. The Collector suggests that the civil courts should be instructed to report to the Magistrate all cases of omission, that he may take action under sub-section (3); he further remarks that he does not see why neglect or refusal to grant receipts should not also be punishable by a Magistrate, since the present procedure laid down in sub-section (2) is not resorted to. He would also in patwari cases require the counterfoil receipt and account books of the village to be filed, and the landlord or patwaris brought to book, according as the one or the other is to blame. As at present advised, I cannot support this last proposal, for I think it would seriously complicate these cases. I should fear that side issues would be raised, and the proceedings drawn out to an inordinate degree.

"In Darbhanga it is reported that the provisions of the law regarding giving of receipts are neglected. The following remarks of the Munsif of Darbhanga are quoted:—

"In the majority of rent suits that came before me for trial, I found that the landlords had systematically neglected to follow the provisions of sections 56 and 57 of the Bengal Tenancy Act. I found that in 99 cases out of 100 the landlords still followed the old system of granting rent receipts in unprinted slips without specifying at all the particulars pointed out in section 56. Counterfoil receipts are seldom kept by the landlords."

"The Collector of Saran reports that the forms prescribed by law are regarded as unfavourable to the landlords. Only the larger ones use them.

"The Collector of Champaran makes the following remarks:—

"Landlords in many instances either do not grant receipts at all, or grant them in some manuscript form of their own. Much litigation would possibly be avoided and many cases would certainly be more easily decided by the courts were proper and formal printed receipts regularly given and received. It is not always, however, the landlord who is in fault, for it is often the raiyat who refused to accept the receipt. Where either party is actuated by a dishonest motive, the receipt is ignored, the landlord taking care not to grant it if he wishes to have his hands free in the future, and the tenant declining to accept it when he hopes that on the occasion of the next landlord he will be able to obtain better terms than those on which he actually holds his land, and which he thinks he would not be able to dispute if he accepted receipts setting them forth. The Act provides penalties for neglect or refusal on the part of the landlord to grant receipts, but the provisions are practically, so far as this district is concerned, a dead letter, while there is no penalty that I am aware of for refusal on the part of a tenant to accept a receipt. If both the granting and the receiving of receipts in the prescribed form could be insisted on, results would be much more satisfactory, but so long as neither party interests himself in the matter, it is not easy to recommend any remedy for the existing state of affairs."

The present Commissioner, Mr. Forbes, in March of the present year, writes to the same effect:—

"I have frequently brought to notice the almost universal disregard of the civil courts to the provisions of sections 56, 57, and 58, regarding the giving of receipts. I think I am correct in saying that it is still a common practice to allow rent receipts of any form and kind to be filed before them."

It may, I think, be regarded as certain that the provisions of the Tenancy Act regarding rent receipts are wholly insufficient to give protection to the ignorant raiyats of Bihar. A typical illustration of the insufficiency will be given in paragraph 44 below.

43. It has not been, so far as I know, alleged that any of the other provisions of the Act can without a survey and record of rights have any more practical effect than the provisions of the previous law in certifying to the raiyat the land he holds or amount of the rent he is to pay for it, or in checking illegal and arbitrary enhancements. Act X of 1859, as well as all the previous rent laws, gave the raiyats extensive rights in theory, but left them to assert them in the Civil Courts if infringed; this they were unable to do, because, owing to the subjection of the patwari to the landlords, the latter monopolised all the evidence as to the occupancy of the lands and the amount of the existing rent, and when landlords sought an enhancement, they did not resort to the Courts in order to obtain it, but simply demanded the enhanced rent as being the existing rent already agreed upon. The raiyat having no document in his possession to show the amount of the previously existing rent, was unable to resist the landlord's demand, and thought in practice it was safer to yield at once rather than be harassed in the first place in the Civil Courts and be worsted in the end. What the raiyat primarily wants is a document which will be accepted by the Courts as proof of the actual rent payable by him. This the proceedings under the survey and record of rights alone can give him, and it is as futile to expect that the provisions regarding giving receipts will secure this end now, as it was in Lord Cornwallis' day to suppose it could be attained by the grant of pattas. The experience of the past ten years confirms the futility of expectation.

The zamindars' memorial calls attention to the fact that some landlords have had surveys made of their estates at considerable expense, and that it is unfair to call on them to bear the burden of a further measurement.

Character of surveys made by zamindars, and possibility of utilizing them. I am personally acquainted with some of the cases alluded to, and as regards others I am advised that the surveys were not made with scientific accuracy, while there was no real record of rights made out at all. A record of rights is an impartial document defining and limiting the reciprocal duties and rights of all parties claiming an interest in the soil. These zamindari surveys and records were made out for rent collecting purposes only, and I am advised in none of the documents was the *status* of the raiyat shown, nor had the officers who made the surveys any legal authority to make out a record of rights. Moreover, had a record been prepared under the Rent law as it then stood, it would necessarily fail to exhibit rights and *status* conferred on raiyats by the Tenancy Act of 1885. We shall in our cadastral operations use the landlords' survey maps and record of rents payable so far as they are correct and sufficient, and thereby we shall strive to spare him expense; but as the best kept zamindari papers fall of necessity far short of a Record of Rights, we must ourselves prepare such a record.

44. Turning now to the question whether the same illegalities prevail in Bihar since the passing of the Tenancy Act, as before, I find that the Commissioner of Patna (the late Mr. Boxwell) reported in 1859\* that—

Evidence of Local Officers as to continued existence of old abuses—*contd.*

\* Parliamentary Return, page 65.

"uncertainty about rent and tenure prevailed generally over the whole division, not equally of course in all places, and perhaps to an excessive degree in some ascertainable smaller tracts, but uncertainty was the rule for which a survey and record of rights was the best known remedy."

The Collectors of the northern districts wrote thus in the same year:—

The Collector of Darbhanga—

"There are many estates in this district in which Government may properly interfere if the propriety of a judicial determination of rents, as effecting a survey and record of rights,



is held to depend on the grounds of dispute or confusion \* \* \* has of late years very greatly and severely enhanced his rents, but he managed to get kabuliyats out of his raiyats. There are various stories as to how he effected this, but it would be useless to repeat them."

"By far the worst offender is \* \* \*, who has been implicated in several criminal cases during the past year, some of whose men now stand charged with riot and murder brought about in trying to coerce a jeyt raiyat of a village to come to terms. This gentleman's property extended over 115 villages. I strongly recommend a survey and record of rights of his property."

The Collector of Muzaffarpur writes —

"It is reported \* \* \*, who bears the worst character for unscrupulousness, and who lately sued in the Civil Courts on a bond which was judicially declared to be forged, is in constant turmoil with his neighbours and the raiyats in his district."

The Sub-divisional Officer of Tajpur in this district wrote—

"In spite of legislation the tendency of rent is to rise. Some of the parganas are unusually fertile. Many of the landlords are unusually rapacious."

The Collector of Champaran reported in the same year thus—

"The \* \* \*, who is a zamindar, claims more than double the rents which the raiyats are willing to pay, and successive District Officers have failed to bring about agreement. The dispute was in full force previous to the discussions which took place in connection with the Tenancy Act, and is no nearer settlement now than it was ten years ago. In the general interests of the peace, a survey and record of rights is essentially necessary."

Writing of villages not leased to indigo planters, he remarked :—

"That they are practically auctioned to native farmers whose income solely depends upon any increase of rents they are able to collect on the head rents they pay to the proprietors; their object is to obtain from the raiyats as large a rent as possible, and to effect this they are compelled to resort to devices which sufficiently show that the tenants generally require further safeguards than those provided by the Tenancy Act."

All these abuses are identical with those which Sir Ashley Eden so vigorously denounced in 1875.

45. I shall finish this portion of my remarks by quoting from a letter which the Settlement Officer of one of the North Bihar districts has just written to the Secretary to the Board of Revenue :—

"In a case in which \* \* \* was personally interested, but was acting nominally, as the Agent of \* \* \*, he caused a patwari to prepare and have filed before me a number of rent receipts for the years 1296 and 1297 *Fash*, which were written on forms bearing the \* \* \* press mark 9-12-91, a date about half-way through the *Fash* year 1299. I enclose one of the receipts for your inspection. The raiyats had been instructed to swear that they had recorded these receipts in the course of the years for the rent of which they purport to have been given."

I have the "receipt" before me as I write. The headings are printed in

A common abuse illustrated by an actual case.

Nagri and the details filled up in manuscript in the same character. It purports to have been executed partly in the month of Asin, partly in the month of

Jeyt, and partly in Bhadro 1596 *Fash*. The paper bears the following press mark:—" \* \* \* No. 47. 9-12-91. 200,000." Could there be a more significant or a more pitiable episode? The wretched raiyats are induced to swear to the execution in 1888 of a document (showing a fictitious rental) the very form of which had not been printed till 1891! What a comment the case affords on the state of things in Bihar, and how it emphasises the necessity of carefully scrutinizing all so-called agreements, and every entry that is made in the record before it becomes final! I am quite certain that the landlord (and chief manager) of the estate in which these raiyats live knew nothing of what was being done in his name in this matter, but the moral I wish to point is that if such things can happen in an estate claiming to be well managed, what things do not happen in the many estates which are ill-managed? If we have such things in the green tree, what have we not in the dry?

46. I now come to a portion of my demonstration to which I invite special attention; for it depends, not on the reports or opinions of local officers, but on the figures of rentals furnished by the zamindars themselves under the Road Cess Act. I quote in support of my case the evidence of rent enhancements which zamindars themselves admit. According to the Road Cess papers filed by the zamindars in the Collector's

Evidence of enhanced illegal enhancements of rent deduced from road cess returns filed by zamindars.

office, the rental of the Muzaffarpur district was in 1876 Rs. 44,15,325. According to the papers filed at the valuation of 1891 it had risen to Rs. 67,27,909. In other words, it had increased during the 15 years preceding

\* See paragraph 34 above for the legal rule for the enhancement of rent; the average price of rice during the quinquennial period, 1876—1880, in North Bihar was 16.88 seers the rupee; from 1887 to 1890 it was 15.01 seers, the rise being thus 12 per cent. against an increase of rent of 50 per cent. in Muzaffarpur.

1891 by more than 50 per cent. There was no appreciable room for extension of cultivation, and there was no such rise in prices\* during this period as would justify more than a small part of this enormous increase in rent. How far this increase, as well as the increase in the other three districts, is due to a higher valuation (at the recent revision) of *nijjote* or homo-farm lands cultivated by the land-

lords themselves, I am unable to say. No doubt there has been some increase in the valuation of these lands, to keep touch with raiyati rates. Possibly also there may have been some concealment of assets at the first valuation in 1876. But discounting these sets-off, and allowing for the considerations noted in the next succeeding paragraph, enough remains to prove that since the passing of the Tenancy Act, as well as before, there have been heavy enhancements of rent in this district, which were not authorized by any provision of the law, and must have been effected in an arbitrary and illegal manner.

The rental of the Darbhanga district, in which there was little or no culturable waste land, increased from Rs. 63,19,138 in 1876 to Rs. 71,37,004 in 1883, or by more than 8 lakhs, or 12 per cent., in seven years. The district,

† I believe the smaller comparative increase in Darbhanga to be due to the greater poverty of the people and the greater prevalence of large estates.

as stated in paragraph 15 above, is now being revalued, and the estimate of the Collector is that the valuation will show the rental to be 78 lakhs of rupees, or an increase of 25 per cent. in 17 years.†

During four out of these 17 years, the Government was compelled to open relief works in the district and distribute charitable relief in aid of the destitute. Further comment is superfluous.

The district of Champaran was revalued under the Road Cess Act in 1888, the previous valuation having been made in 1876. The rental increased from Rs. 26,20,942 in 1876 to Rs. 30,73,556 in 1893, or by 4½ lakhs of rupees, equal to 17 per cent. on the previous rental. In this district there was and still is room for extension of cultivation, and this fact may account for the increase in rental, as well as for its comparatively moderate pitch, without importing the idea of enhancement. When there is much unoccupied culturable land, raiyats will desert their holdings if pressed for more rent than they care to pay.

In Saran the first valuation made in 1876 gave a rental of Rs. 55,06,769. By the revaluation made in 1883, the rental was Rs. 59,87,760, or an increase of about 9 per cent. in six years. Rent rates are very high in Saran, and as there is hardly an acre of culturable land lying idle in the district, the increase of rent is great and, apart from the possible sets-off referred to in the case of Muzaffarpur, must be entirely due to enhancements of raiyats' rents. A revaluation now would bring out no doubt a still further increase.

47. How small a part the civil courts have taken in effecting these enhancements will be understood from the fact that the total number of suits for enhancement or abatement of rent instituted in the four districts

of North Bihar during the seven years 1886 to 1892 inclusive, is, according to returns for which I am indebted to the High Court, only 760, or 109 on an average per annum in an area embracing more than 12,000 square miles, and in which the size of agricultural holdings is not on an average more than three acres each! While the number of holdings is Muzaffarpur and Darbhanga is over eight hundred thousand, and enhancement of rent very heavy as we have seen, the *suits* for enhancement and abatement of rent do not average more than 90 per annum!

48. The only other legal method, apart from a suit in court, of enhancing an occupancy raiyat's rent, is by registered agreement out of court. The Registrar-General of Assurances has supplied me with the following statistics as to the extent to which this method has been utilized since the passing of the Tenancy Act. In Muzaffarpur from 1886 to 1892 only 830 agreements to enhance rents had been registered, and this means that sections 29 and 43 of the Tenancy Act, which were intended as a check upon arbitrary and excessive enhancements of rent, have been practically inoperative in the Muzaffarpur



district. In Champaran, during the same 1  
ments were registered, and all of these exceeded the limit on enhancements  
prescribed by section 20 of the Tenancy Act! But in addition to these ten  
illegal agreements, 680 *sharanamahs* were registered in Champaran. A  
*sharanamah* is an admission by the raiyat that rent is payable at a certain  
rate, and as the document makes no reference to the rate payable before its  
execution, it evades the limitation on enhancements prescribed by the Bengal  
Tenancy Act. What effect such practice can have on an ignorant tenantry  
will be perceived from my remarks in paragraph 45 above.

In Saran only 36 agreements for enhancement of rent out of Court have  
been registered since the passing of the Tenancy Act, and the total amount of  
the enhancement under them was only Rs. 250-1-8.

\* If in the estates of the Maha-  
rajas of Darbhanga and Hatwa  
there has been harsh treatment, I  
shall, from my acquaintance with  
them, acquit both Maharajas of  
personal knowledge of it. Besides,  
the great zamindaris always a  
more lenient and considerate land-  
lord than the pretty proprietor.

In Darbhanga\* not a single agreement for enhance-  
ment properly so called was registered, but I hear  
that in parts of Darbhanga the *sharanamah* business  
has been, and is being, sedulously worked.<sup>1</sup> Enough  
has been said to show that enhancements are not  
effected now any more than they were before the  
passing of the Tenancy Act by recourse to the Civil

Courts or by the other methods provided in that Act. They are effected in an  
arbitrary and illegal manner, as of old, by entering the enhanced rent in the  
patwari papers as the existing rent, and leaving the raiyat at his peril to dispute  
the demand. Could there be any better demonstration of the practical necessity  
of that appeal to the Civil Courts before enhancements are allowed, which I  
dwelt upon in my reply to the memorial of the Planters' Association, or of the  
urgent need of the record of rights which will afford the raiyat a means of resist-  
ing these illegal and never-ending enhancements of his rent?

49. And if all the preceding considerations combine to prove that the

Opinions of Executive Officers as  
to necessity of Survey and Record  
of Rights. Inaccurate statements of  
Zamindari Association on this  
point.

Bihar raiyat is in a wretched condition, and that  
his position has been in no way alleviated by the  
mere substitution of Act VIII of 1885 for Act X  
of 1859 or its Provincial equivalent, and that the  
only hope of alleviation lies in the Record of Rights which we are striving  
to make, we are not without tangible evidence to show that the alleviation will,  
as a matter of fact, and not of mere speculation, be afforded by that Record  
when made. From the nature of the case the evidence cannot be abundant, as  
it is connected only with the experimental area settled by Mr. Collin, but so

Practical evidence as to the bene-  
ficial effect of the record of rights.

† Board's Land Revenue Report  
for 1885-86, paragraph 246.

far as it goes it is most significant. Writing of the  
results of these operations, Mr. Halliday, the Com-  
missioner of the Patna Division, reported† as  
follows in 1886:--

"The survey operations under the Bengal Tenancy Act are progressing as smoothly as  
possible; disputes as to boundaries and possession are few, and are chiefly connected with  
pieces of waste land and roads; organised opposition there is none; and it is now clear that  
apprehensions as to relations between landlords and tenants being embittered by the survey  
are groundless. Among the zamindars the survey seems on the whole not unpopular,  
inasmuch as they see that it will provide facilities for identifying the whole of their lands and  
for realising their dues on account of every portion of their estates. The raiyats are quite  
indifferent in the matter, and see no cause for resistance or opposition to the proceedings.

"The criminal cases connected with the demarcation and survey proceedings have been  
extremely few, and have mostly on investigation turned out to be false or exaggerated.  
Nothing in the shape of a riot has been proved in any instance. The survey will effect much  
good in the way of determining rights and facilitating the identification of land. It is proba-  
ble that the survey record will be looked upon as a charter of rights by all classes interested in land,  
and no transfer will be negotiated without reference to it."

It will be noticed that Mr. Halliday, who wrote the preceding observations  
while still Commissioner of Patna and personally acquainted with the facts,  
is one of the officials whom the Memorialists (paragraph 13 of memorial and  
head (d), paragraph 7, above) quote as among the chief opponents of the  
cadastral survey. When subsequently Member of the Board of Revenue,

<sup>1</sup> See on this point the Hon'ble Mr. Stevens' Note (Appendix A), paragraphs 14 and 15.

Mr. Halliday at first counselled caution in extending the survey operations to the whole Patna Division,\* and afterwards expressed his views in the following words:—

\* Parliamentary Return, 17th May 1892, page 62.

“The Board’s own view, on the fullest consideration of the case, is (1) that to the Government it would not be worth the cost at eight annas per acre unless it was accompanied by a reorganisation of the patwari system for the continuous maintenance of the records; and (2) that at the same cost, whether with or without the reorganisation of the patwari system, the survey would not repay the zamindars and raiyats. It seems to them that in view of the difficulty as to cost, and so long as it is not removed, the Government should confine itself to the survey of estates in which uncertainty as to rents are proved to exist on the evidence of constant disputes between the landlords and tenants.” (Parliamentary Return, pages 156 and 157.)

From the preceding it will be seen that although Mr. Halliday apparently modified the views he held while Commissioner of Patna, as to the survey being regarded as “a charter of rights by all classes interested in the land,” he still remained of opinion that the survey, if made, should be maintained up to date.

The memorialists in the same paragraph go on to say that “the only District Officer who would seem to have favoured the idea of this present survey, with perhaps the exception of Mr. Beadon, was Mr. Boxwell, the late Commissioner of Patna.” Some relevant opinions of the local officers have been quoted in paragraph 44 above; but I would now invite a reference to the Parliamentary Return, pages 64 to 71, which will show (I restrict my observations to North Bihar, though the evidence from the southern districts is also significant) that Mr. Henry, Collector of Champaran, Mr. Beadon, Collector of Darbhanga, and Mr. Bourdillon, Collector of Saran, that is to say, the Collectors of three out of the four districts of North Bihar, have all expressed opinions to the effect that “in these districts uncertainty about rent and tenants’ right does prevail to an extent that calls loudly for a survey and record of rights.” Mr. D’Oyly, Collector of Muzaffarpur (an officer of small knowledge of the district), was the only District Officer of North Bihar who said that the survey was wanted only in isolated villages—an opinion which is contradicted by the actual results of Mr. Collin’s enquiries, by the facts as to excessive enhancements noted in paragraph 46 above, and by general repute. It is thus clear that the memorialists have been misled as to the opinions of local officers in Bihar regarding the necessity of the Survey and Record of Rights, and have been betrayed into endorsing a statement which is entirely incorrect. It may be added that of three high officers whose names are mentioned in the same paragraph of the memorial, Mr. Beames alone had any local experience of North Bihar, and Mr. Beames’ connexion with that locality ceased a quarter of a century ago. Moreover, what Mr. Beames wrote had, it seems, reference, not to North Bihar, but to the Purnea, Malda, and Monghyr districts of the Bhagalpur Division (Parliamentary Return, page 63).

As a matter of fact the necessity for such a Record as we are now engaged in has been a commonplace of administrative reform with Bihar officers, and in proof of this I may say that the following Commissioners of the Patna Division from 1874—namely, Sir Stuart Bayley, Mr. Metcalfe, Mr. Halliday, Sir John Edgar, Mr. Boxwell, Mr. Stevens, Mr. Lyall, and Mr. Forbes—have been uniformly in favour of a survey and record of rights of North Bihar.

50. The late District Judge of Muzaffarpur, Mr. Brett, who had had long experience of that district, has the following remarks on the result of the experimental operations, in his annual report for 1888:—

Opinions of Judicial Officers as to effects produced by Survey and Record of Rights.

“An administration report of this district would be incomplete without some observation on the recent cadastral survey which had been commenced in two parganas of Muzaffarpur.

“I pointed out in my last report the immense good that was expected to result from the measure, and I mentioned also that the work had been stopped. I regret to have to record that in the numerous villages in which the work remained incomplete, the mischief caused has been to great as to make one wish that the work had never been commenced in these villages at all. The work embraced survey and determination of the rents of the lands of each tenant. False hopes were raised, and at the outset the proceedings created a disturbing influence in the minds of the peasantry. This disturbing effect could have been obviated only by the completion of the work; for in the villages in which the work has been completed, the result has been beneficial, and both the landlord and tenant have in most cases agreed to the entries in the jamabandi slip as correctly giving the incidents of the

*tenancy. This is further apparent from the very small ratio of appeals which were referred to me as Special Judge from the decisions of the settlement officers. But in the villages which were surveyed and the ascertainment of rents was not completed, or in which the final publication of the jamabandi could not be made, the tension which had arisen between the parties remained, and is manifesting itself in the large number of rent disputes and rent suits that are coming before the courts."*

And the Munsif of Muzaffarpur writes thus in a letter to the Government in the present year:—

"There has been a marked decrease in litigation in the surveyed tract since 1889. In the few cases which are contested, areas and boundaries of holdings and rates or amounts of rent are seldom disputed. Even if they are disputed, the opposite side produces an extract from the record of rights, and this settles the dispute. Contested cases of this tract are now much simpler, inasmuch as in most of them the only point to be determined is whether the amounts claimed have been paid or not."

Finally, the Collector of Muzaffarpur, in his Annual Administration Report for the past year, makes the following remarks, in which the Commissioner of the Patna Division, Mr. Forbes, agrees:—

"Although the measure (the cadastral survey) is yet unpopular, especially with the zamindar, the advantages of a record of rights is now better appreciated by all classes, the spirit of opposition and consequent agitation which existed before the introduction of the measure has disappeared, and, as far as I have been able to ascertain, the action of the Government is now regarded as beneficial to all parties interested in the land, as likely to place the present unsettled relations of landlord and tenant on a better footing. \* \* The comparatively low condition of the raiyats and peasantry in these parts is due largely to the want of an accurate record of each tenure and each raiyat's holding within the estate, and the status of everyone who has rights in the land, and of the rent paid by each raiyat to the tenure-holder. That the object of the Government is simply to supply this want is now understood by the tenants and landlords alike."

This statement agrees with my own belief. The opposition to the cadastral survey now comes from the zamindars alone, and not seriously from all of them.\* "It is," writes the Commissioner of the Patna Division, "the class of petty zamindars, who prefer unsettled relations with their raiyats, who are the chief opponents of the measure." Owing to the unlimited exercise of the right of partition or subdivision of landed property, the number of petty zamindars in North Bihar has grown enormously, and the increase still continues. Every addition to the number of these petty landlords connotes an enhancement of the raiyats' rents and increased exaction afterwards. The Government of Bengal has more than once considered the propriety of imposing some limitation to this subdivision of property which injuriously affects the general administration of the country, as well as the raiyats; but it has not hitherto seen its way to effective action. The record of rights will check this abuse, among others, affecting the agrarian condition of North Bihar.

51. This concludes what I have to say on the condition of Bihar after the passing of the Tenancy Act, and I think it has been conclusively shown that the Act has been in no way effective in Bihar to suppress the evils at which it was aimed; that it will remain ineffective so long as the people continue in their present terribly depressed condition, or a record of rights is not made and maintained; and that where a record of rights has been made, the results have been in every way satisfactory and beneficial to all concerned. There is not now, and there has not hitherto been, any practical limitation to the power of the Bihar landlord to enhance rents, except his own sense of moderation and the capacity of the raiyats to pay. That this should be so is unfair to the general tax-payer, and a negation of the moral responsibility which rests upon the Government to see justice done to people who are among the poorest and most helpless of Her Majesty's Indian subjects.

#### PART IV.

##### THE MEMORIAL OF THE ZAMINDARI ASSOCIATIONS.

52. In the margin of paragraph 7 above I summarised the chief objections to the Survey and the Record of Rights which are urged in the memorial submitted by the Zamindari Associations for transmission to the Secretary of State. One objection is that

\* See paragraphs 78A and 78B below. I think these paragraphs justify me in saying that the Indigo Planters, who are landlords to a very large extent, are no longer in opposition.

the zamindars were kept in ignorance of the intention of the Government to survey Bihar, that "they were not aware that such a measure was in contemplation until the Secretary of State's sanction had been obtained." The refutation of this objection was given in paragraph 24 by quoting the words of the Government of India and of the zamindari representative in the Legislative Council, the Hon'ble Kristodas Pal, which leave no doubt that it was from the very beginning the openly expressed intention of the Government to survey Bihar, and that this intention was perfectly well understood by the zamindars at the time, as evidenced by Rai Kristodas Pal's words, "the expenses which may be incurred by enforcing the provisions relating to record of rights and settlement of rents will be cast upon the landlords and tenants, though no application has been made by them."

53. Another objection noticed is that the Cadastral Survey of Bihar should not be undertaken without legislative sanction, and that the provisions of section 101 of the Tenancy Act do not provide for the survey of a whole district, still less of a whole province. The refutations of these objections are given in paragraphs 25, 26 and 27, which place beyond question, *first*, that the survey of Bihar was one of the particular objects for which the Tenancy Act was passed, and *secondly* that, in the words of the Hon'ble the Advocate-General (repeating in substance the explanation given in the Legislative Council on the passing of the Act), section 101 "authorizes the survey of a province, district or sub-divisions of a district."

54. A third objection noticed is the assertion that all District Officers having local knowledge were opposed to the survey. In paragraph 49 it is pointed out on the authority of the Parliamentary Return that this assertion is altogether incorrect, that three out of the four District Officers concerned declare that the circumstances of these districts "call loudly for a Survey and Record of Rights," that the fourth—a gentleman of limited local experience—says the operations are required in isolated villages, and that for 20 years the necessity for a Survey and Record of Rights had been a common place of Bihar administrative reform.

55. A fourth objection, that no provision had been made for maintaining the record, was dealt with in paragraph 28, where it is shown that it always was the intention to legislate on this subject by way of supplement to the Tenancy Act, and that before the Tenancy Act became law, the Bengal Government was called on to give effect to that intention. The zamindars further complain (paragraph 17 of their memorial) that the Government of Bengal has not stated the agency by which it intended "to maintain the survey records when finished, and whether the zamindars and the raiyats are to pay for the expense of this agency, and if so, what additional burden will be thrown upon them." The memorial ignores everything that has occurred on this subject since Sir Charles Elliott went on leave. But after the publication of the results of the Muzaffarpur Conference, the zamindars were in possession of sufficient information as to (1) the agency by which it is proposed to maintain the survey records and (2) as to the liability of zamindars and raiyats for the cost of that agency, and (3) as to the additional burden to be thrown upon them—though, as will presently appear, I prefer to regard the matter of cost more in the light of a relief afforded to, than a burden imposed upon, the zamindars. The Associations' complaints on these points, then, are somewhat misplaced, and their attitude would have been more helpful if they had addressed themselves to the actual facts, as communicated to them through the *Calcutta Gazette* of 10th of last August.

56. A fifth objection made in the zamindars' memorial is that the Cadastral Survey will cause general litigation, be a great expense to all concerned, and do no good; and the case of the Cadastral Survey and Record of Rights made in the Srinagar estate is cited in proof and illustration of these assertions. These are the facts about the Cadastral Survey and Record of Rights in the Srinagar estate.

The Srinagar-Banaili estates were taken under charge of the Court of Wards in 1882, with a total nominal rental of Rs. 4,48,715. The arrear demand was Rs. 14,68,440, or  $3\frac{1}{4}$  times the current demand.

In 1884 a sum of Rs. 10,15,036 out of this arrear had to be remitted because it consisted of fictitious and illegal demands which the raiyats

Objections based on the Cadastral Survey of the Srinagar estate in the Purnea district.

repudiated, and which the Court of Wards was legally unable to enforce. The Court of Wards, with all its power under the certificate procedure, was only able to realize 72 per cent. of the current demand in 1884, owing to the inextricable confusion that prevailed in the zamindars' accounts. In 1885 difficulties arose in connection with giving receipts under the Tenancy Act; the raiyats alleging that the receipts offered exhibited fictitious rentals and areas. In 1886 the collections amounted to only 63 per cent. of the current demand, and the arrears had increased by more than 3 lakhs of rupees. To extricate the estate from this intolerable state of confusion, a survey and record of rights was undertaken with these results. All the confusion that had prevailed was cleared up, the raiyats were given, and they accepted, documents showing the exact area of their holdings and the amount of their rents, while the landlords' rental was increased to Rs. 4,96,498, or by Rs. 47,783. The total cost of survey and settlement was Rs. 2,94,328, which will be recouped in six years by the mere increase in rental. For the landlords, therefore, the operations have been a signal financial success.

The immediate result of the operations was that whereas only 63 per cent. of the current demand could be realized before the record was made, the collections in 1889-90 amounted to 112 per cent. on the current demand, and in 1890-91 to 125 per cent., or nearly double the amount realized in 1886. All this was effected without having recourse to compulsory processes for realization of the rent.

As to the "litigation" which attended the operations, the facts are these—

- (a) 1,883 "suits" were instituted by landlords against tenants, and 1,079 suits by the tenants against the landlords, under sections 104 and 106 of the Tenancy Act, for settlement of a fair rent. As the tenants, &c., in the estate number 69,561, the number of suits filed was less than 6 per cent. of the number of holdings, which is an excellent proof of the judgment with which the preliminary proceedings were conducted.
- (b) Of these 2,962 suits, 1,153 were decided in favour of the landlords and 803 in favour of the tenants, and 1,006 were compromised, withdrawn or never came to trial.
- (c) Besides the suits between landlord and tenant, there were 517 suits for settlement of fair rents between tenants, thus making a total of 3,484 suits, which is considerably less than the figure given in the Memorial.
- (d) The total number of appeals was 338 (not 388, as stated in the Memorial): of these 67 were appeals on questions of boundaries under the Survey Act, and 271 were appeals on the merits to the Special Judge in connexion with settlement of rents.

If it be remembered that the settlement of fair rents under section 104 of the Tenancy Act is one of the particular objects of such proceedings (should the parties so wish), and that applications to have fair rents settled *are* in fact the "suits" in question, it must, I submit, be admitted that the litigation in connexion with the settlement of the Srinagar estate, with its 69,561 tenants, the management of which had fallen into such confusion, was extraordinarily small. It would have been smaller still if the landlords had not, as they were quite entitled to do, sought to enhance their rents by "suits" or applications to the Settlement Officer.

As to the attitude of the raiyats, the Settlement Officer, Mr. Collin, reported in 1891 as follows:—

"The raiyats as a rule showed no disposition to hold aloof from the proceedings. They readily came to the Settlement Officer's camp to have the entries explained, and appeared to take great pains to have the records correctly prepared. The large number of objections filed is a proof of the interest taken in the proceedings."

The objections, which numbered 20,777, or one objection to every three holdings, had reference to measurement of fields, to mistakes in writing up the records, and generally to the adjustments of petty errors and discrepancies inseparable from every undertaking of the sort. These objections, which are disposed of as the work goes on, and which every Settlement Officer

knows to be a proof of the people's healthy interest in his proceedings, are construed by the Memorialists into damnatory evidence of embitterment and litigation!

It is true, as the Memorialists observe, that the cost of the Srinagar survey and record of rights was in excess of the estimate of eight annas an acre. But if the condition of confusion in which the estate was involved, and the fact that the lands were scattered throughout five separate districts and 23 parganas be considered, I think it will be admitted that the actual cost of 10 annas 9 pies per acre is not in itself excessive, while the benefits to zamindar and raiyat were cheaply bought at the price. If it cost only 10½ annas per acre to settle the Srinagar estate, we may confidently expect that it will cost much less to make a record of rights in North Bihar, where the land to be dealt with is of course not scattered, but can be surveyed continuously. The only drawback to the satisfaction which the whole episode inspires is that no adequate arrangements could be made to maintain the record up to date. Without such a law for maintaining the records as I now propose, this was impossible.

I may, on the authority of the Board of Revenue, say that since the record of rights has been completed in this estate two years ago, suits for arrears of rent have been instituted against 1,759 tenants, or about 1½ per cent. of the total number per annum. In 1,663 of these, decrees for the full demand were readily procured on the basis of the record of rights. In 80 cases only was there any modification of the sum claimed, and this was owing to clerical discrepancies in the abstracts of the records produced by both parties. Six cases only were dismissed, and out of the total number of 1,759 decided cases, there were only ten appeals. In the Banaili portion of the estate, in which a record of rights was also made, 701 suits for arrears of rent were within the same period instituted, and decrees were given on the basis of the records of right in 699 cases. In only two cases was there any modification of the demand. The conclusion is that the record of rights was entirely effective in enabling the landlords to recover their rents without delay or difficulty, and in restoring order, peace and contentment to nearly 70,000 tenants.

I think it will be admitted that if the Zamindari Associations had desired to cite a remarkable instance of the necessity and advantages of a survey and record of rights, they could not have selected a better example than the Srinagar estate. The settlement, as a matter of fact, has been a financial success for the landlords, and for the raiyats it has been a charter of peace and protection. And this is only one of many examples\* which could be cited of the immediate substitution of order and contentment for chaos and strife under the operation of Chapter X of the Bengal Tenancy Act.

Now I do not for a moment believe that the signatories to the memorial have cited the Srinagar case in support of their views, knowing what the real facts were. The gentlemen who have signed the memorial are all honourable men who would never knowingly put forward misleading statements or endorse inaccuracies of this description. But the very circumstance that on a material point the memorial is so misleading affords a suggestive illustration of that levity of assent with which many of the great zamindars of Bengal and Bihar receive representations made to them in depreciation of the Cadastral Survey.

57. In paragraph 7 of the Memorial, some words of Sir Charles Elliott's are quoted, and on them the assertion is based that the survey is required for "administrative purposes," or collection of economic facts merely, and as such is outside the scope of the Tenancy Act. The objection, if seriously made, is surely not supported by the Lieutenant-Governor's words. It should be perfectly well known to everybody that the record of rights in North Bihar has been undertaken, not with a view to collecting economic statistics, but in the interests of the population of that part of the province. The chief object of the survey and record of rights is more of a judicial than of an executive nature. The statistics which the record of rights will establish are those which will tend to prevent disputes, facilitate the decision of disputes when they arise in the courts, and secure the enjoyment to ten millions of people of their legitimate

\* I mention a few: Dubulhati, Churaman, Sunkarpur, Maldwar, Mollarpur, Dakhin Shabazpur, and others containing an aggregate area of about 2,500 square miles.



rights. These rights have been withheld for a century, and the memorialists must excuse me if I do not take their word for it, that the raiyats are now animated by a violent desire to forego these rights still longer! We are not without ample knowledge on this head. We know, from the constant enquiries of a quarter of a century, what the raiyats do really think upon the matter, and we have been lately told by the President of the Indigo Planters' Association that that the raiyats are willing to pay four times as much for the record of rights as they will be charged. And as for the maintenance of the record, I would again call attention to the words of Mr. Gibbon, Mannager of the Bettiah Raj (quoted in paragraph 62 above): "Half the amount of money now expended by zamindars on the present (patwari) staffs, if paid into Government treasuries, would be sufficient to secure the services of efficient men to maintain the record." We undertake to do it for a small fraction of that amount.

58. The Zamindars in paragraph 8 of the memorial [head (c), paragraph 7 above] raise an objection to the enforcement of section 114 of the Tenancy Act, by which the expenses of making a survey and record of rights in Bihar are to be defrayed by the landlords and tenants concerned. It is, I understand, now contended that this section is invalid, inasmuch as the public had not full notice of the intention of the Legislature to enact it. That this objection is founded on a misapprehension of fact will have been observed from the quotation given in paragraph 24 above from the Hon'ble Kristodas Pal's Minute of dissent from the report of the Select Committee on the Tenancy Bill. The fact is that the section as it stands now consolidates and modifies clauses 163 and 164 of the first edition of the Tenancy Bill published in the English and vernacular Gazettes in 1883. These provisions were reproduced with amendments in clauses 121 and 133 of the second edition of the Tenancy Bill, which was published in the English and Vernacular Gazettes in 1884, and was widely commented upon by the public of Bengal during 1884 and 1885. Those sections provided for charging the costs of settlement operations to landlords and tenants. It was this second edition of the Bill as modified in Select Committee that became Act VIII of 1885. It is therefore incorrect to say that the proposal to charge the expenses of the survey and record of rights to landlords and tenants was not specifically before the public for a long period before the Act was passed.

In regard to the fairness of this provision of the Act, I would again call attention to the fact that the Zamindars of North Bihar have now a rental of about  $2\frac{1}{2}$  crores of rupees (Rx.  $2\frac{1}{2}$  millions), out of which they only pay 34 lakhs (Rx. 340,000) as Government revenue, while at the time of the Permanent Settlement their rental was only a quarter of a crore (Rx. 250,000), out of which they paid something over 22 lakhs (Rx. 220,000) to the State. Their net income now is about 80 times greater than it was three generations ago. They have always been under the obligation to certify to their rayats *at their own expense* the facts which the survey and record of rights will now establish; they have persistently refused to fulfil this obligation; and the Government is now only doing for them what they have themselves failed to do. This plea of hardship because of their being made to fulfil their obligation is, therefore, an unreasonable plea to put forward.

59. In paragraph 16 [head (c), paragraph 7 above] of their memorial, the Zamindars object to the survey and record, because they say the litigation it may produce will not be conducted in the ordinary courts, "which are well known and trusted by the people," but must be heard and determined by Revenue officers, whose decisions for obvious reasons will not be considered with the same respect." Herein the memorialists are altogether mistaken, for, as stated in paragraph 34 of my Minute of the 24th June, and in my reply to the Indigo Planters' memorial at Muzaffarpur, it will rest with the Zamindars whether they will, in any litigation they may wish to raise, take the matter into the ordinary Civil Courts' or have it dealt with by the Settlement Officers. In the latter case the Appellate Court is the Principal Court of Civil Jurisdiction of the district, or a special Civil Court of equal rank with such Principal Court. The objection therefore is based on a misconception of law and fact.

60. Before ending this portion of my paper, I wish to quote the following extract from the despatch of the Secretary of State, No. 95 (Revenue), dated 24th December 1891, on the point of the costs of the survey:—

Secretary of State's opinion as to responsibility of zamindars for costs of survey.

"In regard to the third objection, it is true that in other parts of India the general treasury bears the cost of a cadastral survey and record of rights. But in temporarily-settled districts the treasury reaps an immediate increase of land revenue as the result of these operations; and so it is just that the cost should be borne by the general tax-payer. Although in the permanently-settled districts of the Benares Division the landed classes were not called upon to pay directly for the recent resurvey and record of rights, it must be remembered that one-half the cost of those operations was defrayed from the unexpended balance of a special fund contributed by the landholders. The other half was paid from the general treasury. In the case of North Bihar it is proposed that the general treasury shall bear one-eighth of the cost, the remainder being defrayed, half by the landlords and half by the tenants. The reason for thus limiting the State share of the cost is apparently because the decision of 1877 regarding the cost of the Benares survey is regarded as an unnecessarily liberal concession, and because the land revenue paid at present by the Benares districts is very much heavier than that paid by North Bihar. The North West Provinces' Government orders of the 15th June 1889 show that the five permanently-settled districts of Benares pay on the average a land revenue of 26½ annas for each acre of cultivated land, and that the total land revenue amounts to 39 per cent. of the corrected rental. At present there is no precise information of this kind regarding North Bihar; but I am informed that the land revenue there probably does not exceed 10 annas per acre, and perhaps does not exceed 20 per cent. of the total rental. I consider that there are good reasons for the treasury bearing a smaller share of the cost of the Bihar survey than it did of the Benares survey."

Circumstances have somewhat changed since this despatch was written. It will be perceived from paragraph 15 above that the Government revenue of North Bihar is in round numbers 34 lakhs, while the rental is in round numbers 250 lakhs. The Land Revenue, therefore is now less than 14 per cent. of the rental, as the rental of two districts was valued ten years ago, and one six years ago, no doubt the percentage of revenue on rental is at present appreciably less than 14 per cent., and probably not more than 12 per cent. I am informed that the zamindars of the permanently-settled districts of the Benares Division do pay a cess for the maintenance of the settlement records.

61. I have seen it stated on behalf of the zamindars that the Cadastral Survey will cost over one million pounds sterling, and, more recklessly still, that it will cost more than the capitalized value of the land. Now what are the facts? The area of North Bihar is 12,821 square miles, or 8,205,440 acres. The estimated cost of the Cadastral Survey is eight annas an acre, which would, if not exceeded, give in round numbers a total expenditure of 41 lakhs of rupees, of which Government pays one-eighth under present arrangements. I am in hopes that the estimate will not be exceeded, but assuming that the cost will even be so much as Rs. 400 per square mile, which I am assured it will not reach, even then the total cost would be about 51 lakhs, of which the Government pays one-eighth, leaving 45 lakhs to be shared between landlords and tenants in equal parts. That would still be only about £300,000, or less than a third of the sum which the zamindari advocates estimate. It would be only 4½ pence per acre each on the landlord and tenant. The expense, whether it be four pence or three pence per acre, I propose to recover at or about the rate of one penny per acre per annum. Where then is the probability of impoverishment to either landlord or raiyat from the cadastral survey?

## PART V.

### THE LAND RECORDS ESTABLISHMENTS BILL.

62. I now return to the point at which, in paragraph 7 of this Minute, I digressed, and proceed to comment on the Bill which I propose for the creation and maintenance of a Land Record Establishment. The Bill itself, with a Statement of Objects and Reasons, is printed in the Appendix C; and as the Government of India may wish to know at once how I should propose to give effect to its provisions if passed into law, I also append a draft set of rules (to be made under the Bill) which might form the basis of further discussion. The rules would of course be susceptible of such amendments as experience

The Land Record Establishments Bill. Complaints of Zamindari Associations of want of information.



might show to be necessary on all points, more especially as to the unit of area to be entrusted to each Land Record-keeper, the salary to be allotted to him and to all supervising officers, and the number of inspections to be made. I should welcome, and so far as possible give effect to, any suggestions which, consistently with maintaining a correct record, will be acceptable to the landlords, and guarantee the status and trustworthiness of the Land Record staff.

Objection to Land Record Establishments Bill.

63. The objections against the Bill may be considered as falling under three heads—

- (a) that the cess for which it provides is a violation of the terms of the Permanent Settlement, and an excessive burden on the landed interest in Bihar;
- (b) that it is unnecessary to maintain the record at all, or, if necessary, that a decennial revision would suffice;
- (c) that the scheme proposed in the Bill will lead to an intolerable degree of interference with landlords, and would be ineffectual for the object in view.

64. The first and the most important objection to the Bill is that the cess it provides for is a violation of the Permanent Settlement and an excessive burden on the landed interest in Bihar. The last portion of the objections is the burden of much of the memorial to the Secretary of State. I shall deal with this objection at some little length.

In Part II of this Minute I stated that when making the Permanent Settlement, Lord Cornwallis reserved complete power to interfere in any way the Government liked for the protection of the raiyats. This reservation is contained in article VII, Regulation I of 1793, which runs thus:—"It being the duty of the ruling power to protect all classes of people, and most particularly those who from their situation are most helpless, the Governor-General in Council will, whenever he may deem it proper, enact such regulations as he may think necessary for the protection and welfare of the dependent talukdars, raiyats, and other cultivators of the soil; and no zamindar, independent talukdar, or other actual proprietor of the land, shall be entitled on this account to make any objection to the discharge of the fixed assessment which they have agreed to pay."

Apart from the general and indefeasible power of the Government to make laws as circumstances require, that is the authority which empowers the Government to pass the land Records Bill into law, and who can say that its terms are limited, or its meaning or expression doubtful? There is here no question of enhancing the Government revenue. The Government "seeks no fiscal advantage, but the prevention or diminution of human suffering." It is merely a question of providing "regulations for the protection and welfare of the dependent talukdars, raiyats, and other cultivators of the soil." But besides this authority, there is another and a more specific justification for this clause of the Bill, which I proceed to state.

65. When introducing the Bill for amending the law relating to kanungos and patwaris into the Bengal Legislative Council in 1885, I thus explained the status and functions of the kanungo and the patwari, and their relationship to the zamindars: "I will now say a few words regarding the collection of the revenue under the Muhammadan system. The revenue was actually collected by officials who were the prototypes and doubtless in some few cases the progenitors of the zamindars of to-day. But to secure the interests of Government, it was obviously essential that the dealings of these tax-collectors and their subordinate agents, or gumashtas, with the actual cultivators should be subjected to some check. Accordingly, in order to obtain and preserve the accounts necessary to exercise such a check, the system of patwaris was remodelled, and the system of kanungos established. As originally constituted, the kanungo, or 'expounder of the laws,' was an agent of the Imperial Government who was associated with the tax-collector or zamindar for the purpose of checking and supervising the zamindar's proceedings in regard to the collection of public revenues. The patwari was the kanungo's subordinate, just as the village gumasta was the zamindar's, and he

Objection to the Bill on the ground that it imposes a cess on the land considered. The origin and nature of the system of kanungos and patwaris.

bore to the gumastha the same relation that the kanungo bore to the zamindar. Thus there was created a double check on the proceedings of the zamindar, while where was also established an office of record and account to which the cultivators could appeal in defence of their rights and privileges."

The kanungo and patwari were therefore under Abkar's system entirely unconnected with the actual collection of revenue. Their business was to see that no more than the due amount was taken from the people by the zamindar and his agent, the village gumashta: that the fact of payment was duly recorded; and that other matters connected with the agricultural well-being of the community were duly attended to. In the language of the Fifth Report of the House of Commons on Indian Affairs, "the kanungo was the confidential agent of Government—the depository and promulgator of the established Regulations—whose office was intended as a check on the conduct (in financial transactions) of all the other village officials. Under the superintendence of the kanungo or of one of his appointed agents was placed a certain number of adjacent villages, the accounts of which, as kept by the patwaris, were constantly open to his inspection, and the transactions in which, with regard to the occupancy of land and the distinction of boundaries, came regularly under his cognizance in a form which enabled him, at any time when called upon, to report to the Government the quantity of land under cultivation, the nature of the produce, the amount of rent paid, and generally the disposal of the produce. To this officer, moreover, reference might be had to determine contested boundaries, the use of rivers or reservoirs for irrigation, and generally in all disputes concerning permanent property or local usage without the limits of his official range."

66. The preceding extract makes it clear that under the *régime* to which we succeeded in Bengal, the kanungo and the patwari were public servants and in no way subordinate to the zamindar, but on the contrary a check upon his proceedings. But in the lapse of years, and amid the confusion attending the break up of the Mogul Empire, the office of kanungo fell into abeyance; and when we took over the Dewany or fiscal administration of the country, the kanungo was little more than a name. In the arrangements for the Permanent Settlement, therefore, no provision was made for him; but "the allowances of the kazis and kanungos heretofore paid by the landholders" were added to the jama (section 34, Regulation VIII, 1793), the Government taking on itself the payment of kanungos should the same institution be again revived, of course on the same basis. But the parwari system met with a very different fate. In origin Hindu, and not Muhammadan, it had all the vitality among the Hindu population which an indigenous institution always possesses. So that in 1793, Lord Cornwallis found it in full vitality in Bihar. He resolved, as I have stated in paragraph 13 above, to make use of it as one means of effecting that record of rights which he intended to establish, and he accordingly (by section 62, Regulation VIII of 1793) reaffirmed the obligation imposed by ancient custom on every zamindar of maintaining a patwari in each village to keep the accounts of the raiyats. The words of the law are these:—

"Every proprietor of land who may not have established a patwari in every village in his or her estate to keep the accounts of the raiyats, as required by the original rules for the decennial settlement of the three Provinces (i.e., Bengal, Bihar, and Orissa), shall immediately appoint a patwari in each village for that purpose."

I invite particular attention to the words "to keep the accounts of the raiyats." The patwari was under the Regulation to be, not the zamindar's servant, but the custodian of the raiyat's interests as against the encroachments of the zamindar, which was indeed his true position and function from immemorial times.

Subsequent regulations provided that, if the zamindar failed to appoint the patwari, the Collector was to do so; that where there were more proprietors than one, the Collector was to appoint without reference to the zamindar (section 4, Regulation I of 1819); and that the Board of Revenue might "increase or reduce the amount of remuneration paid to the patwari, and alter or modify the mode of its payment," whenever they deemed this necessary (section 18, Regulation XII of 1817).

67. It is thus established (and indeed it never has intelligently questioned) that at the

Financial effect of zamindar's responsibility for the payment of patwaris in North Bihar.

the zamindars of Bihar are

the conditions on which they ~~have~~ <sup>are</sup> ~~the~~ <sup>estates</sup>

salary of a patwari for every village—such patwari to be, not their private servants, to keep *their* accounts, but public servants, “to keep the accounts of the raiyats.” Now if it be remembered that the Board of Revenue has authority, under section 18, Regulation XII of 1817, to fix the remuneration of patwaris and the mode of paying it; that Rs. 8 per month, or say Rs. 100 per annum, is not too high pay for a patwari; and that according to the last census there are over 18,000 villages in North Bihar, it will be apparent that if the Government decided to maintain the record of rights through patwaris, it could recover, under the existing law and the terms of the Permanent Settlement, more than 18 lakhs of rupees annually from the zamindars of North Bihar on account of the pay of patwaris, unless in the rare cases where the zamindars could show that by immemorial custom the patwari was paid by the raiyats. *The Government can do this without any legislation whatever, and merely by enforcing the legal obligations which now rest upon the zamindars.\** The zamindars at the Mazuffarpur Conference knew this as well as I did, and they very naturally rejected the patwari, and chose a scheme for maintaining the record, which, with a minimum of interference, will probably not cost them one-fifth of what they are now liable to pay for the patwaris. I acquiesced in their choice for reasons which I stated at length in my Minute of the 24th June, although by doing so I was throwing on the raiyats one-half of a mitigated obligation which under the terms of the Permanent Settlement the zamindars should as a general rule bear. It is, then, surely too unreasonable for the zamindars of North Bihar, when a choice was allowed them, and their selection of a greatly reduced responsibility conditionally approved, to ignore all reference to these transactions, and say they cannot be made responsible for any contributions at all! If the zamindars unsay what they have said, and the Land Records Bill fail to become law, then they should remember that the Government can fall back on Regulation XII of 1817, and enforce the registration of patwaris, their payment in such mode as the Board of revenue directs, and the maintenance of the record of rights through them. But that the zamindars of North Bihar will not face that extremity, and that in their hearts they are thankful for what I have done for them in this matter, can be perceived clearly enough from the Resolution (among the enclosures to this Minute), in which the Tirhut Landholders' Association express their gratitude to me for the arrangement I have made.

68. I have thought a good deal over the clauses of the Bill, which following the Road Cess Act, make the land records cess of

Reasons for clause of Bill imposing on zamindars and raiyats joint responsibility for payment of Land Records establishment.

one-fourth of an anna per rupee of rent† recoverable in equal shares from the raiyats and the landlords.

I was induced to have the Bill drafted as it stands

by the consideration that, no matter what was the case in the distant past, it certainly is the case now that the raiyats do pay for the patwari either in the shape of customary fees or of an enhancement of rent, and that the zamindars have in the process of time, to some extent, transferred their own liability in this respect to the raiyats' shoulders. We cannot undo the past: we can only take precautions for the future; and therefore in this, as in other points, I accept existing facts, and do what is best for the future on that basis. *I am the more willing to do so, as the land record establishment now proposed will, I estimate, not cost the raiyat more than one-half anna or about one-half penny per annum per acre of his holding.* I trust that the full significance of this fact will not be lost on the opponents of this measure both in England and in India. For a cess of one-half anna (or one-half penny) per acre *per annum* each raiyat will enjoy the means of protection from illegal enhancements of his rent and arbitrary ejection from his land. This is surely an insignificant price to pay for such

\* On this point reference is invited to the opinion of the Hon'ble Sir Griffith Evans (Enclosure IIa, pages Xa to Xc) which confirms that of the Hon'ble the Advocate-General referred to in paragraph 31 of my Minute of 24th June last.

† I notice that in replying to a question put in the House of Commons by Mr. Hemker-Heaton in August last, Mr. Russell, Under-Secretary of State for India, said: “The cost of maintaining the record of rights would be about  $\frac{1}{4}$  of an anna per rupee of rent.” Mr. Russell was, it will be noticed, incorrectly informed as to the facts, and made the cess three times more than I propose it should be.

advantages, and no sensible addition to the raiyats' existing burden. incidence the zamindar of the land record cess will be no heavier than on the raiyat.

But I shall not, when the facts are known, be surprised if the Bill on this point is adversely criticised as unfair to the raiyat, having regard to the landlord's existing responsibility for the whole pay of the patwari when he cannot show that by custom before Regulation XII of 1817 the raiyats were responsible; and I should not object to leaving the point an open one for the Legislative Council to decide, without any declaration of policy from Government, except that the rate of  $\frac{1}{2}$  of an anna per rupee of rent shall not be reduced, nor any greater burden be imposed on the raiyat than that one-half of that rate (or  $\frac{1}{2}$  of an anna—that is, one farthing—per rupee of rent) which the Bill as drafted imposes.

69. I now propose to consider the second of objection stated in paragraph 62 above. In my speech at the Bankipore Darbar,

Objection that the Bill is unnecessary considered.

I referred to this objection in the following terms:—"I have spoken to many landlords within

the last two months on this subject, and there was not one who did not confirm my own long-standing conviction, that if the survey is made at all, it ought, when completed, to be maintained up to date. We know that changes in holdings are of constant occurrence through deaths, transfers, successions, reclamation of waste lands, division of fields (and I might have added, enhancements or divisions of rent). So that, if no means of annually adjusting the record to these change is adopted, the record will have become wholly obsolete in a few years, while from the first year it would be growing and more discredited for judicial and administrative purposes." Experience in other provinces where records of rights are maintained shows that the annual changes vary from 5 to 10 per cent. of the entries. If no adjustments were periodically made, we should be in a very few years confronted with the state of chaos and the numberless embarrassments we suffer from to-day. If the record be not maintained, the survey and settlement of Bihar will be a very one-sided business indeed. In my letter of the 6th July to the Government of India, it was said: "By the survey and record the landlords will gain substantially not only in that the recovery of existing rents will be materially facilitated and its cost reduced, but by the increase of rents in cases in which the survey enables the landlord to prove that the tenant is holding land in excess of the area for which he is paying rent. \* \* \*

Maintenance of the record of rights essential in the interests of the raiyats.

They will further gain by the stereotyping of *sir* or *demesne* land, which plays so important a part in the agricultural system of Bihar, and over which raiyats henceforward will be debarred from acquiring occupancy rights. The planters who are not solely landlords, and who regard the acquisition of rights in land as merely subsidiary to the cultivation and manufacture of indigo, will find their position enormously strengthened and their initial expenditure reduced by the survey placing on record the exact nature and extent of all proprietary rights; so that in future the planter will know exactly with whom to deal when taking a lease of a village. He will also be enabled, on occasions, to ignore the zamindars and to acquire effective rights for the purpose of cultivating indigo by entering into agreements with the raiyats direct. So far, then, looking at the matter from the raiyat's point of view, it will be seen that for a survey and record which will lead probably to an enhancement of their rents, and certainly to a curtailment of the area within which the rights conferred on them by the Tenancy Act can take effect, the raiyats will have to pay a sum amounting in the aggregate to one-half of the charges imposed upon the land. Clearly they have the strongest equitable claim to some substantial counterbalancing equivalent for proceedings which are likely, or which have a tendency, to produce such results. This equivalent is chiefly to be found in the maintenance of the record of rights, which, if it makes the raiyats now, will, it must be hoped, give them freedom from illegal demands and adequate protection in the future."

The maintenance of the record up to date thus, in my opinion, lies at the very root of the whole matter, and it is not to be wondered at that the zamindars are concentrating their opposition on this point. If they are successful—if even

by agreeing to the survey the zamindars can avoid the subsequent maintenance of the record—then in a very few years the raiyats will be in as bad a plight than if we had never interfered on their behalf. The examples of Chittagong and of Cuttack have been cited in support of the view that a survey without subsequent maintenance of the record confers a lasting benefit on the raiyats. But I submit that the cases are not in point, for the raiyats in Chittagong and (in a lesser degree) in Cuttack were strong and their landlords weak, while in Bihar the case is entirely reversed; even in Chittagong and Cuttack it is certain that the condition of the raiyats would be better than it now is had the records been kept up. Moreover, the experience of the Benares district, which adjoins North Bihar, points the other way, and indicates the necessity of maintaining the record. My great fear is that to the ignorant Bihar raiyat the survey alone would, after a very few years had passed, be a mere fig-leaf of protection.

70. At the Muzaffarpur Conference the zamindars met my proposal for an annual revision of the record by a counter-proposal for a decennial revision. But it was pointed out that, having regard to the frequency of changes in the record, a decennial revision was practically equivalent to no maintenance at all. I objected, and still object, to any limitation on the discretion of the Government as to the time when the record shall be revised. We are to be responsible for the accuracy of the record, and we must not be fettered as to the time or method of keeping it up to date. The only limitations we can allow are those imposed by financial considerations. For these we have provided in the Bill, and subject to them we must have power to revise the record at such periods as we may find most desirable. If we find an annual revision necessary, we must be able to make an annual revision; if we find a biennial revision will suffice, we must be at liberty to make our revision biennial. If in well-managed estates, where we find that changes are regularly reported to the Land Record-Keeper, a revision once in three years will meet practical requirements, we may have a triennial revision; but no longer period than three years should ever be permitted to pass without revising the record. Three years is the period of limitation which the law allows in regard to the recovery of arrears of rent. On one point perhaps I ought to guard myself against misconception. There is no intention to have the whole of the record re-written each year, but merely to have entered up annually mutations or changes which have taken place during the year. The re-writing of the record *de novo* will depend on the number of intermediate mutations that may have been entered, and administrative convenience.

71. The third objection (see paragraph 62 above) I have to notice is that our scheme of maintenance of the record involves intolerable interference between landlord and tenant. To see the fallacy of this, one has only to consider what information has to be maintained in the record. In Appendix B to my Minute of the 24th June, I gave provisional forms of records of rights, and an examination of them will show that they involved no unnecessary interference between landlord and tenant at all. All that they involved was the adjustment of the record of a previous year to the circumstances actually existing at the subsequent time when the Keeper of the Land Records visited the village. If all the changes are reported by the landlord and raiyat, or by either, at the time of occurrence, and before the date of the land Record-Keeper's visit, all the Keeper will have to do is to verify their accuracy on the spot. Wherein, then, does the intolerable interference exist? Where does it come in? There is to be no interference by the Land Record-Keeper with agreements regarding rents, no interference with the letting or resumption of lands, no meddling in the zamindari management of the village. There is to be no interference at all beyond the adjustment of the record to the existing facts. The people who make this charge of "intolerable interference" are themselves either unacquainted with the scheme which is before them, or, being averse from the check on arbitrary action which a record of facts and legal conditions implies, they permit their judgments to be warped by baseless apprehensions.

But it is said the Officiating Lieutenant-Governor's scheme for main-  
the record will be ineffectual. No reasons are given; the scheme is condemn-

off-hand by those who have had themselves little or no practical experience in such matters. My reply is that the scheme as it stands is the handiwork of men who have been dealing with land records on the largest scale now in operation in India. It is no doubt susceptible of improvement—every human contrivance is—and it will be improved with time and experience; but it is, as it stands, based on principles which underlie all valid schemes of the sort, that have been from time to time approved by men competent to form an opinion on the subject. We have succeeded in the Central Provinces, and we must be given some credit for knowing what we are about when we say that with ordinary care and attention the Land Records of North Bihar can be maintained up to date.

72. At the Muzaffarpur Conference the scheme found a critic in Mr. T. M. Gibbon, C.I.E., whose advocacy of Chapter X of the Tenancy Act (concerning surveys and record of rights), when he was a member of the Legislative Council of the Governor-General, will have been noticed in paragraph 26 above. But Mr. Gibbon has not always been in opposition on this question. In 1878, in a communication to the Bihar Rent Law Committee, he advocated the maintenance of the record of rights in the following terms:—

Attitude of Indigo Planters to the Bill considered.

“The patwari should be nominated by the district officers, be the servant of Government paid by the Government he should be, as originally intended, ‘record-keeper,’ and nothing but a record-keeper, entrusted with no executive powers. He should have nothing to do with the village collections, granting receipts, giving pattas and kabulyats, &c, &c, the zamindar should be compelled to do all this through his own servants

“The patwari being the record-keeper, the zamindar should be compelled to hand him copies in duplicate of the past years rent roll (*jamabandi*) and balance sheet (*wasal haki*), the current year's ticca land accounts (*arsatta*) and instalments paper (*bahri*, quarterly returns of all assessment papers (*khasras*), and also collections made (*scabasi*), memoranda of land-relinquished by raiyats and new lands bandobasted (settled) with raiyats, with a list of pattas given and kabulyats received.

“One copy should remain with the patwari, the other be signed by the patwari and returned to the landholder. The patwari should be a good accountant and know something of surveying, in case you think it necessary that all measurement of jotes should be made by the patwari. The raiyats should at all times have access to the patwari's papers and the patwari be bound to afford him all information as to the state of his account.

“Instead of each petty village of from one to two hundred rupees rent-roll having a patwari of its own, the district should be divided into circles with rent-rolls of not less than Rs. 5,000, not more than Rs. 10,000. It should be optional with landholders to dispense with the present staff of men. Half the amount of money now expended by zamindars on the present staffs paid into Government treasuries would be sufficient to secure the services of efficient men, and would be a saving to the zamindars, as it would enable them to get rid of the men who cannot afford to be honest on the small salaries they receive.

All returns called for by district officers should represent the exact terms of the holdings, however ridiculous to them such terms may appear.”

These were the proposals regarding the maintenance of a record of rights which Mr Gibbon advocated in 1878. He was not, I believe, against some sort of maintenance in 1892, but we are unfortunate in finding him in apparently an altered mind in 1893. The following extract from the Minutes of the Conference shows the grounds which Mr. Gibbon gives for his change of opinion, and the support my proposals borrow from his earlier views. I quote from Mr. Stevens' remarks in the Minutes of the Conferences:—

“He (Mr. Gibbon) replied \* \* that there was nothing in it (his letter to the Bihar Rent Law Committee) regarding which he had changed his views as to the conditions which then existed, but that circumstances have since become altered. When the letter was written there was no survey or immediate prospect of one. But the difference which this change has made seems to me to be at the most one of convenience rather than of principle. In other words, the suggestions then made were proper in themselves, though the survey now, in Mr Gibbon's opinion, makes it unnecessary that they should be carried out. You will notice that the following considerations underlie those suggestions:—

- (1) It is right that Government should have at its disposal a local agency of contemporaneous record.
- (2) That agency should have no connection with the collection of rents, but should be entirely at the service of Government, and should be nominated and paid by Government officers.
- (3) It is reasonable that the zamindars should pay at least a share of the necessary expenditure direct into the Government treasury.



- (4) It is possible to secure, consistently with due economy, the services of efficient men.
- (5) The areas to be dealt with by these record-keepers should be re-adjusted, and the district divided into convenient and fairly uniform circles considerably larger than those of the existing patwaris usually are.
- (6) The present staff of patwaris should be placed at the disposal of the zamindar, to keep or to dispense with at their option.

"These considerations, gentlemen, are, you will perceive, exactly those on which the scheme now before you is based, and the only question is whether the survey has superseded them. In the opinion of Government it has not done so."

73. Reading this extract with the memorial presented by the Indigo Planters at Muzaffarpur, it might be inferred that the attitude of the Planters' Association towards the survey and records of rights was somewhat of this kind. They desire to have the survey made, but do not want to have the record subsequently maintained; they want to have rent assessed summarily by the revenue officers and not by the judicial tribunals on "excess" areas which the survey may apparently bring out; they want to have patwaris abolished, without any substitute being supplied in their places, and the last potentiality of Government control over village agrarian economy thus wiped out; and lastly they want to have a summary method for recovering arrears of rent. In my reply to the memorial\* presented to

\* See Enclosure II.

me at Muzaffarpur by the Indigo Planters' Association, I endeavoured to show what these claims really signify, and I am now loath to believe that the Bihar Indigo Planters do mean all this. I prefer to think that they wish as earnestly as I do that there should be impartiality and fair dealing throughout this business. They wish for the survey and record of rights; so do I. But I wish further to have the record maintained, so that we may escape the errors of the past and secure in future protection and certainty for all concerned where there is now none. The Planters agree, as I understand, to the theory, but fear corruption, interference or harassment in practice. I have dealt with this objection in paragraph 71 above, and here I would only add, cannot the Planters' Association bring itself to let us try? If it agrees with us on all other points, why should it break away from us on this question of maintaining the record up to date? I can understand the opposition of the zamindars who object to the survey and every consequence of it. But I am unable to understand the attitude of the Indigo Planters, who profess good-will to the raiyats, are eager that the Record should be made, but oppose its maintenance up to date,—the only good the raiyat can get out of the whole business. I can only indulge in the hope that further reflection will bring the Indigo Planters' Association round to see that on the ground of expediency as well as of justice, the maintenance of the record up to date is conducive to their own best interests, and as essential for the protection of the raiyat as it is for the more speedy recovery of arrears of rents through the Civil Courts.

73A. I caused the preceding paragraphs to be communicated to Mr. Macnaghten, Secretary to the Indigo Planters' Association, who happened to be in Darjeeling, and I have his permission to quote from his reply as

"Indigo planters of Bihar as a body approve of the survey and record of rights, but they hold that a very much larger proportion, if not the whole, of the costs should be borne by Government.

"They believe that the proposed method of keeping up the record is a fair one, but they recognise more than any Government servant can do, the wide opportunities for bribery and corruption that will be open to subordinate officials. They do not think that a record will be kept up with any degree of accuracy, and they have reason for believing that such record is not kept in the North-West Provinces.

"Many planters think that the officers appointed for a circle, a subdivision, or whatever it may be called, should be of superior grade, a European if possible, and of the Survey Department; that the area of each circle should be such that the officer in charge would complete it in the ordinary course in three years. He may, if necessary, have to visit some villages oftener in the interval.

"Objection is not taken to the Government cess. If the record is to be kept up it must be paid for; but planters do most strongly urge on Government the absolute necessity of curtailing, so far as possible, the opportunities for the exaction of illegal cesses, the extortion bribery, and corruption which will inevitably follow the introduction of the record, and which will, in the opinion of many, more than do away with any good that should otherwise

"It is by spreading the Government employés over as large an area as is consistent with efficiency, and widening the intervals between their visits, that this may be most easily effected."

73B. The preceding extract went far to justify my belief that in point of principle there is no substantial difference between the Indigo Planters' Association and ourselves in connection with the cadastral survey and the maintenance of the record, and that, whatever differences do exist, touch matters of detail which are susceptible of adjustment. I have since communicated these proposals to Sir William Hudson, President of the Indigo Planters' Association, who now authorizes me to say that while endorsing Mr. Macnaghten's remarks, he accepts my scheme for maintaining the record, subject to the condition that an European officer of the Survey Department with the powers of a Deputy Collector (*i.e.* of a revenue officer) be appointed to supervise the working of the scheme in each district.

Compliance with Sir William Hudson's condition is consistent with my scheme; and it is in itself desirable that expert survey officers who have had experience in making the record should be employed in maintaining it. It may therefore be, I think, assumed that we shall be able to satisfy the Planters' Association, and that they will not persist in their opposition to the maintenance of the record. In matters of detail I need hardly add we shall be forward to meet all reasonable wishes.

74. There is one clause of the Bill—clause 12—on which I am particularly anxious to say a few words. The Memorialists are very pressing in their representations that the costs of the Cadastral Survey and Record of Rights will be a heavy burden on the landlords and tenants. I have shown in paragraph 61 above that there is extreme exaggeration in this complaint, but I admit that the work cannot be done for nothing, and I am anxious to adapt the method of recovering the cost to the convenience of all concerned. The method of recovering the cost of a Cadastral Survey and Record of Rights prescribed in section 114 of the Tenancy Act has been found by practice to be in some cases defective. It is suitable in the case of small estates; it is less suitable when large areas are concerned. In the latter cases it involves very intricate calculations, especially where subinfeudation has gone to any considerable length: it must cause some, though transitory, inconvenience to the poorer classes of people by making the debt payable in a single instalment; and by necessitating the employment of a collecting agency of tahsildars, peons, &c., it not only adds something in the shape of fees to the original burden, but opens the door to the irregularities which the memorialists connect with the employment of low-paid and ill-supervised agency. To the preceding objections against the existing arrangements from the landlords' and raiyats' side might be added the additional objection from the side of the Government (which advances the cost of the operations), that when the expenses are divided among and have to be collected from several millions of people, there is risk of short collections, unauthorised exactions on the part of process servers or collecting peons, and the certainty of intricate accounts and protracted proceedings. All these conditions point to the desirability of devising some means whereby the costs of the Cadastral Survey and Record of Rights may be recovered in such instalments as will not be felt by any party, and under such conditions that there will be no addition to the original apportionment, and no opportunity for exactions on the part of a collecting agency. By the plan proposed in clause 12 of the Bill, these requirements will, I think, be met, and if the clause becomes law, I should propose to spread the recovery over so many years, that in any one year the riyat or landlord would not have to pay more than one anna per annum per acre of the holding or estate.

To prevent such a transitory cess being continued in permanence, it would be specially mentioned in the "*parcha*" or extract from the record given at attestation time to each riyat that the additional anna would only be payable for the number of years which might be fixed as the period over which recoveries might be spread.

This proposal ought, I think, to obviate the objections raised to the Cadastral Survey on account of the cost and hardship to raiyats and zamindars which the collection of the expenses would, it is alleged, entail, while it is



desirable on its merits. The procedure I now propose would be an alternative to that provided in section 114 of the Tenancy Act.

Summary of conclusions.

75. With these remarks I bring this Minute to a conclusion, hoping that I have shown—

- (1) that in these Provinces raiyats were from the earliest times entitled to have a record of their rights in their holdings prepared at the landlords' expense;
- (2) that it was the duty and intention of the Government from the earliest times to establish a record of rights;
- (3) that the raiyats of Bihar have grievously suffered from the non-fulfilment of that duty and intention;
- (4) that the rentals of Bihar landlords have within three generations increased to an amazing extent (the figures show eighty fold), and out of all proportion to what was contemplated at the time of the Permanent Settlement, or to what was justifiable by any subsequent legislation;
- (5) that this increase in rent and the destruction of raiyats' rights which it entailed have reduced the raiyats of Bihar to an extreme state of poverty and depression;
- (6) that illegal enhancements of rent are still going on, and that the same abuses exist now in Bihar, and the same necessity for a record of rights, as before the Tenancy Act was passed;
- (7) that without a Cadastral survey and record of rights maintained up to date, these abuses cannot in Bihar be adequately and permanently checked;
- (8) that a Cadastral survey and record of right, wherever undertaken, have proved an immediate remedy for such abuses as exist now in North Bihar, and that they have, far from stirring up litigation and strife, produced peace and good-will between landlord and tenant;
- (9) that our proposals to create a Land record agency are justified alike by law, expediency, and moderation; that the cess proposed, *one-quarter anna (or one farthing) per rupee of rent*, is not only moderate in itself, but must be regarded, not as fresh taxation, but as a great alleviation of a legal obligation which now rests upon zamindars; that the *annual* incidence of this cess on the *land* will not exceed one anna (one penny) *per acre*, payable half by the landlord and half by the tenant; and that for such an insignificant charge the landlord will be able to recover arrears of rent though the Civil Court more speedily than at present, while the raiyat will secure protection against illegal demands and arbitrary eviction;
- (10) that it is not incumbent on the Government to make, at the expense of the general tax-payer, any large contribution to the expenses of operations rendered necessary by the laches of landlords, whose income from the land has, largely through extra-legal means, increased enormously in three generations, and who now contribute far less to the public Exchequer than landlords similarly circumstanced in any other part of these Provinces or perhaps of the Empire;
- (11) that the Memorial of the Zamindari Associations submitted to me for transmission to the Secretary of State is inaccurate on all material points.

The draft of this Minute has been considered by the Board of Revenue, and I am glad to be able to append to it the opinion of both Members of the Board, endorsing and accepting it. I would especially invite attention to Mr. Stevens' interesting and valuable note.

A. P. MacDONNELL,

*Offg. Lieutenant-Governor.*

*The 20th September 1893.*

## APPENDIX A.

*Note by the HON'BLE C. C. STEVENS, Senior Member of the Board of Revenue, on His Honour the Officiating Lieutenant-Governor's Minute, dated 20th September 1893.*

[Referred to in paragraph 75 of the Minute.]

1. I have read this Minute carefully, and have no hesitation in expressing my complete concurrence with both the statements of fact and the arguments which it contains. Both are dealt with so fully that very little besides acquiescence is left for any other writer.

2. Too much prominence cannot be given in the refutation of the wholly groundless assertion that the survey and record of rights in North Bihar constitute a violation of the Permanent Settlement. For the nature of the English people is to abhor a breach of faith, and the assertion, by persons who profess to be well informed, that an offence so repugnant to the national character has been committed, will always command attention. This charge has been persistently pressed against the Tenancy Act, and is now being urged against these proceedings, which have for their purpose the enforcement of the provisions of that Act, defining and maintaining the rights of the raiyats. And, just as the light thrown on the project of law by the discussions in and out of the Legislative Council dissipated the baseless accusations brought against the legislation as a whole, so it is well that the futility of these same accusations should be exposed, now that they are revived and directed against its practical application.

3. The position of the zamindars before the introduction of the English rule may readily be understood from the following facts:—

- (1) All the settlements, from that of Todar Mull downwards, dealt primarily with the individual raiyat, and fixed by an Act of State the payments to be made by him.
- (2) The profits of the zamindar were derived, partly from lands granted to him on account of official services, and partly from a definite share or a commission upon the revenue collected from the raiyats.
- (3) The commission received by the zamindar was very small, not exceeding 5 per cent. of the gross produce of the soil.
- (4) That the zamindar was an official rather than a proprietor may be inferred from his responsibility for the police, for the administration of justice, for the collection of transit duties, for the preservation of roads and bridges, and (when occasion required) for military service.
- (5) The zamindars were liable to dismissal.
- (6) Zamindars were appointed and hereditary successors received sunnuds. These were asked for by petition, and granted on conditions including promises to conciliate and protect the raiyats, to pay in the rents after receiving credit for their own allowances, to refrain from prohibited exactions, and to deliver the official village accounts.
- (7) Incompetent zamindars were excluded.
- (8) Zamindaris were not transferred as of right without the sanction of the State.
- (9) Kanungos and patwaris were appointed to declare the law, to keep the village accounts for the protection of the raiyats, and generally to check the zamindars.

4. In 1769, shortly after its succession to the Dewani, the East India Company appointed supervisors to enquire into the condition of the lands and the revenues in addition to other duties. The following passages from the orders appointing these officers are instructive—

“A third and equally important object of your attention under this head is to fix the amount of what the zamindar receives from the raiyats as his income or emolument, wherein

they greatly exceed the bounds of moderation, taking advantage of the personal attachment of their people and of the inefficiency of the present restrictions upon them. When the sum of the produce of the land and of each demand on the tenant is thus ascertained with certainty, the proportion of what remains to him for the support of his family and encouragement of his industry will clearly appear, and lead us to the reality of his condition.

"Among the chief efforts which are hoped for from your residence in that province, and which ought to employ and never wander from your attention, are to convince the raiyat that you will stand between him and the hand of oppression; that you will be his refuge and the redresser of his wrongs; that the calamities he has already suffered have sprung from an intermediate cause, and were neither known nor permitted by us; that honest and direct applications to you will never fail producing speedy and equitable decisions; that, after supplying the legal due of Government, he may be secured in the enjoyment of the remainder, and finally teach him a veneration and affection for the humane maxims of our Government."

A third passage directs that—

"The raiyat should be impressed in the most forcible and convincing manner . . . that our object is not increase of rents or accumulation of demands, but solely by fixing such as are legal, explaining and abolishing such as are fraudulent and unauthorized, not only to redress his present grievances, but to secure him from all further invasions of his property."

Seven years later a Committee was appointed by the Governor-General (Warren Hastings) to enquire in detail into the value of the land. It was suggested as an object, among others, of the enquiry—

"to secure to the raiyats the perpetual and undisturbed possession of their lands, and to guard them against arbitrary exactions. This is not to be done by proclamations and edicts, nor by indulgences to the zamindars and farmers; the former will not be obeyed unless enforced by regulations so framed as to produce their own effect, without requiring the hand of Government to interpose its support; and the latter, though it may feed the luxury of the zamindars or the rapacity of the farmers, will prove no relief to the cultivator, whose welfare ought to be the immediate and primary care of Government. . . . It is the interest of the zamindar to exact the greatest rent he can from the raiyats; and it is as much against his interest to fix the deeds by which the raiyats hold their lands and pay their rents to certain bounds and defences against his own authority. The foundation of such a work must be laid Government itself."

Sir Philip Francis, in the course of these discussions, though opposing the Governor-General generally, confessed that—

"the idea of guarding the raiyats against arbitrary exaction is just and attainable."

Mr. Barwell said—

"I deem it to be the first object of this Government to fence and secure the raiyats against the arbitrary power of the zamindars; otherwise, no one regulation we may resolve on can, in its immediate or remote consequences, answer the beneficent design for which it was formed. . . . I acknowledge the task is extremely difficult and arduous; but unless the rights of the common people are well defined and well secured, I am persuaded that all our speculations will only tend to enrich the zamindars."

5. Thus we see that in the times preceding the British rule, the raiyat was the person with whom the State had to deal, the zamindar was the agent of the State, and officers were appointed for the purpose of keeping the raiyats' accounts and of serving as checks upon the zamindars. The necessity for defining and securing the rights of the raiyats was recognized and forcibly expounded by the British rulers in the earliest days of their accession to power; and it was even then clearly seen that such a definition and maintenance of the raiyats' rights was not a work in which the zamindars could be expected to co-operate, but that its foundation must be laid by Government itself.

6. I can find no evidence whatever that in the 24 years which elapsed between the accession to the Dewany and the Permanent Settlement, there was any change, either in England or in India, of sentiment on this question. On the contrary, the Statute 24, Geo. III, cap. 25, was interpreted by the Court of Directors in their letter of the 12th April 1786, as intending to declare general principles for the regulation of the conduct of Government to the natives—

"Not to introduce any novel system or to destroy those rules and maxims which prevailed in the well-regulated periods of the native princes, an adherence to which must be most satisfactory to the natives, and most conducive to the safety of our dominion."

In the discussions which ensued in India, the protection of the raiyats was the first consideration with the disputants on both sides—

"We know from experience" (says Mr. Shore in his Minute of the 18th September 1789) "what the zamindars are; and I am not inclined, in opposition to that experience, to suppose that they will at once assume new principles of action, and become economical landlords and prudent trustees of the public interests. The necessity of some interposition between the zamindars and their tenants is absolute; and Government interferes by establishing regulations for the conduct of the zamindars, which they are to execute, and by delegating authority to the Collectors to enforce their execution. If the assessment of the zamindari were unalterably fixed, and the proprietors were left to make their own arrangements with the raiyats, without any restrictions, injunctions or limitations, which, indeed, is a result of the fundamental principle, the present confusion would never be adjusted."

The necessity for imposing these restrictions, injunctions and limitations is thus used as an argument against the hasty conclusion of the Permanent Settlement. But the Governor-General, in his reply, maintained most vigorously that the prevention of arbitrary and unjust conduct on the part of the zamindars was in no way inconsistent with the contemplated measure—

"To permit him (the zamindar) to dispossess one cultivator for the sole purpose of giving the land to another, would be vesting him with a power to commit a wanton act of oppression from which he could derive no benefit . . . The rents of an estate can only be raised by inducing the raiyats to cultivate more valuable articles of produce, and to clear the extensive tracts of waste land which are to be found in almost every zamindari in Bengal."

7. In his Minute dated 18th September 1789, Lord Cornwallis writes—

"I understand the word permanency to extend to the jama only, and not to the details of the settlement; for many regulations will certainly be hereafter necessary for the further security of the raiyats in particular, and even of those talukdars who, to my concern, must still remain in some degree of dependence on the zamindars; but these can only be made by Government as abuses occur, and I will venture to assert that either now or ten years hence, or at any given period, it is impossible for human wisdom and foresight to form any plan that will not require such attention and regulation. I cannot, however, admit that such regulations can in any degree affect the rights which it is now proposed to confirm to the zamindar, for I never will allow that in any country Government can be said to invade the rights of his subject, when they only require for the benefit of the State that he shall accept of a reasonable equivalent for the surrender of a real or supposed right which in his hands is detrimental to the general interest of the public, or when they prevent his committing cruel oppressions upon his neighbours or upon his own dependents."

8. The views of the Court of Directors may be ascertained from the following extracts from their letter dated the 19th September 1792:—

"We therefore wish to have it distinctly understood that while we confirm to the landholders the possession of the district which they now hold and subject only to the rent now settled, and while we disclaim any interference with respect to the situation of the raiyats, or the sums paid by them, *with any view to any addition of revenue to ourselves*, we expressly reserve the right which clearly belongs to us as sovereigns of interposing our authority in making from time to time all such regulations as may be necessary to prevent the raiyats being improperly disturbed in their possessions, or loaded with unwarrantable exactions. A power exercised for the purposes we have mentioned, and which has no view to our own interests except as they are connected with the general industry and prosperity of the country, can be no object of jealousy to the landholders, and instead of diminishing, will ultimately enhance the value of their proprietary rights."

Again—

"Our interposition, when it is necessary, seems also to be clearly consistent with the practice of the Moghul Government under which it appeared to be a general maxim that the immediate cultivator of the soil, duly paying his rent, should not be dispossessed of the land he occupied. *This necessarily supposes that there were some measures and limits by which the rent could be defined, and that it was not left to the arbitrary determination of the zamindar, for otherwise such a rule would be nugatory*; and point of fact, the original amount seems to have been annually ascertained and fixed by the act of the sovereign."

9. Such being the plain expressed opinions and intentions of those who framed, and directed the enactment of, the regulations constituting the Permanent Settlement, there can be little difficulty as to the true meaning of the right of interference provided in section 8 of Regulation I of 1793—

"It being the duty of the governing power to protect all classes of people, and more particularly those who from situation are most helpless, the Governor-General in Council will, whenever he may deem it proper, enact such regulations as he may think necessary for

the protection of the dependent talukdars, raiyats, and other cultivators of the soil; and no zamindar, independent talukdar, or other actual proprietor of land, shall be entitled on this account to make any objection to the discharge of the fixed assessment which they have respectively agreed to pay."

10. It ought never to be forgotten that the Permanent Settlement was a transaction between the Government and the zamindars, to which the raiyats were not parties, and that whatever rights and privileges were bestowed on the zamindars were carved out of those belonging to the State, and not out of those belonging to the cultivators. The zamindar was never intended to be, and never was, the absolute proprietor of the soil. Yet there is no doubt that the use of the word "proprietor" and of others gave rise in early times to misunderstanding on the part of persons unfamiliar with the history of the zamindari tenure in Bengal. And precisely this ignorance is the great hope of the agitators in England at the present day. "The use of these terms" (say the Court of Directors in their Revenue letter to Bengal, dated 15th January 1819)—

"which has ever since continued current, has in practice contributed with other causes, to perplex the subject of landed tenures, and thereby to impair, and in many cases to destroy, the rights of individuals; yet it is clear that the rights which were actually recognised to exist in that class by the enactments of the Permanent Settlement were not intended to trench upon the rights which were possessed by the raiyats."

And further on they say—

"It is also a circumstance which is not to be overlooked, that although so many years have elapsed since the conclusion of that settlement, yet no resort has been had to the exercise of the power we then expressly reserved, of interfering for the purpose of defining and adjusting the rights of the raiyats."

10A. The truth is that it is not the zamindars, but the raiyats, who have just cause to complain of us. They may righteously say—

"Before the British rule our dealings were with the State, whose officers the zamindars were; our right to hold our lands without disturbance, so long as we paid the established rent, was acknowledged; exactions beyond this were forbidden; kanungos and patwaris were appointed by the State to keep our accounts and to protect our rights against the zamindars; when the British took the Dewany it was thoroughly understood that we were entitled to these privileges and to the protection of the State; your own Governor-General saw that the obvious interest of the zamindars is to exact the most he can from us, that it is against his interest to accept any limits to his authority, and that to establish such limits is the work of Government. When the Permanent Settlement was being arranged, it was understood that our rents were to be paid according to fixed rates, and the zamindars' profits were to be derived only from inducing us to grow more valuable crops, and from the settlement of waste lands. At the Permanent Settlement made 'with a view to promote the future ease and happiness of the people,' the Government reserved to itself the fullest power to interfere for our protection. Now what have you done? How have you fulfilled your acknowledged obligations? In 1799, thinking your own revenues in danger, you handed us over to the zamindars practically without reserve, that they might realize their rents by summary measures of the severest kind. In 1812, to remove the 'considerable abuses and oppressions' which you had enabled the zamindars to practice, you empowered them to distrain our property. Up to 1817 you had admittedly neglected to afford us any of the promised protection. You made a feeble effort to revive and strengthen the kanungo and patwari for our benefit; but the kanungo has vanished, and the patwari has become the servant of the zamindar, on whom he was intended to be a check. Your sale laws and laws for partition of estates have brought us nothing but mischief. In 1859 you passed a Rent Law which in Bihar was inoperative, except as authorising distraint and enhancement against us. In 1885 you passed Tenancy Act, which was intended to limit the mischief caused by your previous negligence. But up till now what have you done to secure to us the benefits of that law? Have you educated us to a knowledge of our rights? Have you defined those rights? Have you recorded them, so that, surrendering as lost for ever all that of which we have been deprived, we may maintain the residue safe against future encroachments?"

And to this complaint it would be difficult to give any satisfactory reply; the institution of the survey and record of rights now going on in Bihar can only be regarded as a tardy realization by the Government of the obligations which in theory it has always recognized. It is not the zamindar, but the raiyat, who has had reason to complain of disregard of the Permanent Settlement.

11. The importance of the subject must be my apology for writing at such length on the origin of the general question, and I feel that after all I have added little, and perhaps need have added nothing, to the exposition contained in the Minute.

12. It appears to me that paragraphs 24 to 26 of the Minute effectually dispose of the zamindars' contentions that the survey of Bihar has taken them by surprise, and that a district is not such a "local area" that the Government is justified by the Act in surveying it. As for the latter point, it has always been a matter of surprise to me that the zamindars, holding the views which they profess, should not at the outset have protested against the Act itself. But allowing that they have permitted the opportunity to pass, it is strange that, if they believed the action of Government to be illegal, they should not have taken the advice of counsel. The adverse opinions of a few eminent lawyers would have doubtless induced the Government to pause in its undertaking. Or the institution of a test suit would have procured a judicial decision long ago. That these obvious measures have not been taken leads to the interference that the advisers of the zamindars have more hope from popular agitation than from law and facts. And this is confirmed, now that the Advocate-General has given an unequivocal opinion in support of the wider interpretation of the law, which has commended itself to all the responsible authorities.

13. I can think of nothing either to modify, or to explain or illustrate, in that large part of the Minute which deals with the necessity of the survey and record of rights in Bihar up to the passing of the Tenancy Act.

In reference to paragraph 40, in which it is shown that the remedies supplied by the Act are of two kinds—the legislative and the executive—I would invite attention to a passage which I have already quoted from Warren Hastings, to the effect that the "perpetual and undisturbed possession of their lands" is not to be secured for raiyats by "proclamations and edicts" unless "enforced by regulations so framed as to produce their own effect, without requiring the hand of Government to interpose its support." This is a prophecy which has been exactly fulfilled. A right known by all concerned to exist is more than half secured, and in Bihar the great difficulty has been, and still is, that the people know too little of their rights. The Board are now frequently receiving applications from landlords or tenants in other parts of the province for survey and record of rights; and it is argued that it would be wiser to take up only cases in which interference is thus applied for. But the obvious answer is that, where both parties are fully aware that the law is available, the objects of the law are in some measure attained, even without direct recourse to it. But, where one party knows the law and takes advantage of it, while the other is ignorant, the case is quite different. Here "the foundation of such a work" (as Warren Hastings said) "must be laid by Government

14. In paragraph 45 of the Minute His Honour the Officiating Lieutenant-Governor mentions a case which has come to light in the course of the proceedings now in progress in Bihar, in which the raiyats have been induced by an unscrupulous agent to swear to the authenticity of certain forged receipts to their own detriment. I may mention another instance of a different kind, which has still more recently come to my notice. It is that of a document which has been impounded by a registrar, and has been brought before the Board for adjudication of the proper stamp duty, but deserves consideration on account of the nature of its conditions. The following is a translation of extracts from the body of it:—

"That I am jeyt raiyat and cultivator in the said bearing  
tanzi No. in the proprietary right of  
and for the above reason the collection of rent from tenants of the said mauza is entrusted  
to me.

II. That I being the jeyt raiyat have no power of making any settlement, &c., without  
a written order from the or some one appointed in his  
behalf, with the exception of collecting rents from the tenants, and if I do so it will be null  
and void.

III. I, the jeyt raiyat, will not allow any one to excavate a tank or well in the cultur-  
able or fallow land, situated within the aforesaid mauza, belonging to the raiyats or *sir*; nor  
will I do so myself. I will not plant bamboos and groves, nor will allow any raiyat to do so,  
and nor will I erect houses myself or allow others to do so. In case tanks and wells are  
dug or gardens and bamboo groves are planted or houses are built, the tanks and wells will  
be liable to be filled up and the gardens and bamboo groves will be liable to be dug up and the  
houses will be liable to be demolished. If any raiyat without the sanction of the Maharaja  
Bahadur or his amlas and mukhtars aforesaid (tries) to excavate tanks, dig wel's, plant  
gardens and bamboos and erect houses forcibly, I will not allow him to excavate, plant and



build. In the event of failure to carry out these actions (orders) I will be held responsible for them and will have to make up the loss which will accrue to the Raj and shall pay it (loss) out of my own person and property to the aforesaid malik.

\* \* \* \* \*

V. That I shall collect rent according to the prevailing rates of the village and remit the same to the Tahsil Amla, instalment by instalment, receiving my annual commission of Rs. 17, commencing from 1290 *Fashi*, which will be set off against my rent, and that I shall discharge the duties of jeyt raiyat faithfully.

\* \* \* \* \*

VII. I, the jeyt raiyat, will pay the rent my jote lands which are in my possession up to the present time and the details of the rates of which are given below, with effect from the beginning of 1290 according to the *Bhaueli*, rate detailed below, and another (*sic.*, in original) and the fixed rates of the villages, year after year, kist after kist, without objection. I will take receipts and *Farighkhati* (written acquittance), (for payments). If I fail to pay in due instalment, I shall be liable to pay *khelafi* (interest on arrears) as is customary in the village. In the event of my non-payment and repeated default (of the payment) of instalment, the \* \* \* and his heirs and representatives and amlas and mukhtears will be at liberty to take such steps for the realization of the amount, as they may deem proper. I, the jeyt raiyat, will not have any right of any objection to their claims.

\* \* \* \* \*

A list of rates of rents is attached.

15. The points to be particularly noticed are these. The conditions of the third clause are in direct violation of sections 76-79 and 82-83 of the Tenancy Act, although section 178 of that Act lays down that nothing in any contract between a landlord and a tenant shall take away or limit the right of a tenant, as provided by the Act, to make improvements and claim compensation for them. It is further to be observed that the rents are fixed with *ten years' retrospective effect*. What the exact object of this last stipulation is cannot be ascertained from the document itself, but it can scarcely be consistent with the interests of the raiyat. This document comes from a very large estate in North Bihar, and the reason why the stamp question is brought before the Board is that many such contracts have been executed.

16. It is perhaps unnecessary for me to say that I entirely concur in the reply given by paragraph 62 *et seq.* to the argument that to compel the zamindars to pay for the maintenance of the record is a breach of the Permanent Settlement. The argument is otherwise of a very hollow kind since it appears only too certain that, unless very stringent precautions are taken, the raiyat will ultimately pay all and the zamindar nothing. I do not feel quite sure that the maintenance of the records will cost so little as an anna per acre, but the rough calculations which have been made show little more than that amount. I have little hope that the raiyat's share will be but half this; but I have no hesitation in expressing my belief that it would be to his interest to pay the whole expense if only his tenancy and the rights and conditions attached to it are recorded.

C. C. STEVENS.

*The 16th September 1893.*

*Postscript.*—Since the above was written I have had the advantage of seeing Mr. Lyall's note, and I now desire to add a few words which it has suggested to me.

2. I differ from Mr. Lyall in the opinion that the opposition to the survey and record of rights has been increased by the precipitation with which the work was begun. It appears to me that the opposition was lessened by the belief prevalent (to some extent wrongly) among the zamindars, (1) that, where they chose, their own patwaris would be used to do the work; (2) that the patwaris as Government servants would be abolished without the substitution of any other machinery; (3) that a summary procedure for the realization of rents would be given them; (4) that there would be considerable enhancement of rents; (5) that, to facilitate this enhancement, there was at least a chance that the former zamindars' measurements might be accepted as a basis. They have now been disabused by the later proceedings, and have seen that they are not likely to gain some of these expected advantages; the result is that the opposition has, for the time, gained something in strength,

But, on the whole, it appears to me by no means greater than might have been anticipated. From the earliest times it has been thoroughly understood that the interests of the raiyats and those of the zamindars, as understood by the zamindars, are antagonistic; and it would have been unreasonable to suppose that a measure, primarily intended to define and defend the rights of the tenants against the landlord, was likely to pass unopposed by the party whom it was meant to restrain. The opposition in this country is strengthened by the belief which is to some extent current, that, after Bihar has been dealt with, the turn of Bengal will come. I do not think that the Government can very well disclaim such an intention, though it is conceivable that wholesale proceedings may not be regarded as necessary. In what has reached me of the opposition in England, I can trace little knowledge of the subject from original sources, but much repetition of information more or less inaccurate, and argument more or less unsound, which have been furnished from India. It is to be hoped that when the real facts and the correct law are better known, the British virtue of candour will re-assert itself.

3. I am sorry to find that Mr. Lyall is still in favour of a summary system of enforcing the payment of rents. There was far greater excuse for such measures in 1799 and 1812, when the Government revenue was in a very high—probably an excessive—ratio to the assets; and if under such conditions the revenue was to be punctually paid, extreme punctuality must in time be exacted from the raiyats. Now even our most recent settlements of revenue are by far more liberal; and the ratio of assets to revenue elsewhere, as the Officiating Lieutenant-Governor has shown, has increased enormously.

The advocates of a summary system appear to be searching for a scheme, rather than supporters of one already thought out. Those who have given up the attempt to square this circle have done so on the broad ground that they can consent to no plan which would be based on misplacing the burden of proof on the raiyats' shoulders. They hold that, when a private person wishes to make use of the machinery of the State to collect debts, whether they are his rents, or whatever they may be, he must be compelled to make a statement of his claim. And this he must authenticate with some solemnity, being subject to a severe penalty for fraud. Such a claim having been made, it is manifest that it would be unjust to proceed at once to seize the property or person of the alleged debtor, without giving him an opportunity of stating his own case. It is easy to imagine to what oppressive uses such a power could be put; and if it could, there are certainly cases in which it would. Notice then must be given to the debtor. He comes forward and contests or admits the claim, and an order is given. Suppose he does not appear, it then becomes necessary to proceed further; but equity requires that, if he presents himself before the court, explains his absence, and proves the injustice of the order, that order must be rescinded. But this is the procedure of a regular suit, and can no more be abbreviated than a proposition of Euclid.

4. I am, however, decidedly in favour of giving the zamindars such assistance as can legitimately be given in realizing their rents. The most important step in this direction is to make a survey and record of rights and to maintain the latter up to date. This being done, the existence and conditions of the tenancy are beyond dispute, and except in special cases the only question will be that of payment; therefore, though the form of procedure remains unchanged, the practical facility of proof will remain much increased. Then arrangements may be made executively to provide for a sufficient staff of officers to try rent suits; perhaps some of these might be peripatetic, if such a course should be convenient. When decrees have been obtained, excessive indulgence should not be shown in execution to judgment-debtors who have defaulted without reasonable cause. Perhaps stamp duties might be reduced. But, however this might be, when the results of the survey and record of rights have once been secured, anything more that can be done for the zamindars will be in the way of executive orders rather than of shortening the judicial procedure.

C. C. STEVENS.

*The 18th September 1893.*



APPENDIX B.

*Note by the HON'BLE D. R. LYALL, C.S.I., Member of the Board of Revenue, on the Officiating Lieutenant-Governor's Minute, dated 20th September 1893.*

[Referred to in paragraph 75 of the Minute.]

I AM at one with His Honour the Officiating Lieutenant-Governor in nearly every point of his Minute II, and agree in all the vital points. But to avoid any appearance of inconsistency—as I was, and still am, opposed to some parts of the Tenancy Act, particularly as applied to East Bengal—I think it well to record my views on the Minute at more length, instead of noting a simple concurrence.

2. I look on the settlement chapter of the Tenancy Act as quite the most valuable part of the Act, and I hold it was necessary to work it in North Bihar.

At the same time I should oppose it being worked in the same wholesale way, *i.e.*, by districts or divisions, in a very large part of Lower Bengal, because such a settlement is not needed there, the raiyats being the stronger party and not requiring to have their rights safeguarded.

3. I think that much of the opposition in Bihar is due to the work having been begun too precipitately, but I fully recognise that the work was a necessary one.

4. Coming to details, I strongly endorse what His Honour says in paragraph 15 regarding the Permanent Settlement terms being very severe on the zamindars. The cause of this is explained in paragraph 9. Estates had been let out to ijaradars over the heads of the zamindars, provided they paid higher rates, and these rates were very generally adopted as the basis of the Permanent Settlement.

While Collector of Dacca I made detailed enquiries into this point, and the percentage of estates which passed out of the hands of the original zamindars in the first 20 or 25 years after the Permanent Settlement was enormous. In fact comparatively few representatives of the original zamindars were found to still hold estates. We now allow 10 per cent. for cost of collection alone. In the Permanent Settlement 10 per cent. was nominally allowed to recover cost of collection and profit of the zamindar, and, as above stated, the percentage really fell short of this figure. Now 25 per cent. is given to outsiders and 30 to zamindars, of which 10 per cent. is for cost of collection and 15 to 20 per cent. for profits.

5. I am still of opinion that where there has been a survey and settlement, and where the record is kept up, zamindars should have a summary procedure for the realization of rents admittedly due (paragraph 16 of the Minute). I would not re-enact Regulation VII of 1799, but even that law would have worked very differently had there been a record of rights.

6. I support the views of the Officiating Lieutenant-Governor in paragraph 38. During the short time I was in Bihar, I had to deal with a year of scarcity, and looking at the reports of 1888, I expected that relief works would be wanted in the early part of the cold weather. This was not the case, and the people of Darbhanga held out nearly three months longer than they would have done had the reports of 1888 been correct.

In Gaya, where the harvest was exceedingly bad, and which Mr. Grierson has recently depicted as a district normally deficient in its food-supply, no relief at all was necessary, and there was no importation of grain.

7. I have no doubt whatever that local area may be held to include a district or even a division. The phrase was intentionally inserted to include large as well as small areas; and apart altogether from the dictionary meaning of the word, the discussion in Council shows that large as well as small areas were included.

8. I have also no doubt of the legal right of Government to pass such an Act as that proposed, but it should apply in the first place only to Bihar, and I doubt if it will ever be wanted in East Bengal. It would be equally legal there, but as the conditions are so widely different from those of Bihar, it is not wanted there, and it would be impolitic to introduce it.

D. R. LYALL,

*Member, Board of Revenue, L.P.*

*The 18th September 1893.*

## APPENDIX C.

- (1) *The Land Records Maintenance Bill, with Statement of Objects and Reasons.*  
 (2) *Draft Rules under the above Bill.*

(1)

A

## BILL

TO

*Provide for the maintenance of Land Records in the Lower Provinces of Bengal.*

WHEREAS it is expedient to provide for the maintenance of survey maps and of records of rights and of settlement records and to repeal the law relating to kanungoes and patwaris in Bengal, it is hereby enacted as follows :—

1. This Act may be called “The Land Records Maintenance Act, 1893.”

Short title.

It shall come into force only in districts or parts of districts in which a survey and a record of rights has been made under Chapter X of the Tenancy Act, or under any other law for the time being in force, to which the Lieutenant-Governor may from time to time extend it by an order published in the Calcutta Gazette;

Extent.

and thereupon this Act shall commence and take effect in the districts or parts of districts named in such order, on the day which shall be in such order provided for the commencement thereof.

Commencement.

2. On the commencement of this Act in any district or part of a district, the enactments specified in Schedule A shall be repealed to the extent mentioned in the third column thereof.

Enactments repealed.

3. The Collector of the district, with the previous sanction of the Board of Revenue, may for the purposes of this Act combine the villages in the district of which he is Collector into circles and may fix the number of circles in the district or part of the district to which this Act may be extended, and the respective limits of such circles, and may, with the like sanction, from time to time alter the number and limits so fixed.

Power to form and alter circles of villages.

4. For each such circle the Collector shall appoint a keeper of the land records of the circle, who may be styled Land Records Keeper or by such other name as the Board of Revenue, having regard to local custom, may designate.

Appointment of a sub-kanungo to each circle.

5. From and after the commencement of this Act all immoveable property situated within the districts or parts of districts in which this Act may from time to time be in force, shall be

Levy of a cess for payment of land record-keepers' salaries and charges incurred for efficient maintenance of records.

liable to the payment of a cess (hereinafter called “The Land Records Cess”) to be applied for the purpose of defraying the salaries of the keepers of the land records appointed in such district, and any charges incurred on account of the correct

Section 23 of India Act XIX of 1873.

Section 2 of Bengal Act II of 1877.

and efficient maintenance and supervision of the records, and it shall not be lawful, save under the provisions of this Act, to levy, or continue to levy within such districts, or parts of such districts, any cess, whether under the name of putwari *ing* or other designation, and whether credited separately in the zamindars' accounts or consolidated with the rent, for the purpose of keeping the accounts of the raiyats or for any similar purpose.

Section 3 of Bengal Act II of 1877.

6. All valuations of immoveable property which have been, or may from time to time be, determined under the Bengal Cess Act, 1880, shall be deemed to be valuations of immoveable property for the purposes of this Act:

Valuations under the Cess Act, 1880, to be deemed to be valuations under this Act.

Provided that in local areas in which a record of rights has been made under Chapter X of the Bengal Tenancy Act or any other law for the time being in force, the aggregate amount of the rents recorded as payable or settled, as the case may be, may, in the discretion of the Collector, be deemed to be the valuation of immoveable property for the purposes of this Act.

Section 4 of Bengal Act II of 1877

Rate of cess to be levied not to exceed a quarter of an anna in the rupee.

[NOTE.—So far as enquiries have gone, it is anticipated that this rate need not be exceeded.]

7. The Local Government shall, by an order published in the *Calcutta Gazette*, determine the rate at which the cess for the maintenance of land records shall be leviable in each district or part of a district, and the date from which it shall take effect; such rate shall not exceed *one-quarter of an anna* in the rupee of the annual value of the lands in such district or part of a district.

Section 41 (1) of Bengal Act IX of 1880.

8. Every holder of an estate shall yearly pay to the Collector the entire amount of the cess for maintenance of land records calculated on the annual value of the lands comprised in such estate at the rate which may be determined for such cess as in this Act provided.

Section 41 (2) of Bengal Act IX of 1880.

9. Every holder of a tenure shall yearly pay to the holder of an estate or tenure within which the land held by him is included the entire amount of the cess for the maintenance of land records calculated on the annual value of the land comprised in his tenure at the rate which may have been determined for such cess as in this Act provided.

Section 41 (3) of Bengal Act IX of 1880.

10. Every raiyat shall pay to the person to whom his rent is payable his proportionate amount of the cess for maintenance of land records calculated at the rate not exceeding *one-eighth of an anna* in the rupee upon the rent payable by him, or upon the annual value ascertained under the provisions of the Bengal Cess Act, 1880, of the land held by him.

11. The provisions of sections 42 to 49 (both inclusive) of the Bengal Cess Act, 1880, shall apply as far as practicable to the cess for the maintenance of land records.

12. It shall be lawful for the Local Government, instead of passing an order of apportionment under section 114 of the Bengal Tenancy Act, to recover either in one year or several years, and in the manner specified in sections 8, 9, 10 and 11 preceding, all costs, declared by the Local Government to be recoverable from

landlords and tenants, which have been incurred in making a survey and record of rights and a settlement of rents under the Bengal Tenancy Act, such costs not having been incurred for the purposes of a settlement of land revenue.

13. The salaries of the Keepers of the Land Records and of their establishments, if any, and of all establishments entertained for the supervision of them, shall from time to time be fixed by the Board of Revenue under the order of the Local Government.

Section 32 of India Act XIX of 1873.

14. Every person succeeding, whether by purchase, inheritance, gift or otherwise, to any proprietary right in any estate or revenue-free property, and every manager of such estate or revenue-free property shall within six months from the date of such succession or assumption of charge give notice of the fact (i) to the Collector, or (ii) to the Land Record-keeper of the circle in which the estate or property is situated, in such form as may be prescribed by the Board of Revenue.

Notice given to the Land Record-keeper may under the orders of the Collector be held to be a compliance with the provisions of section 42 of the Land Registration Act VII (B.C.) of 1876; and on receipt of such notice the Collector shall take the action prescribed in sections 47, 48, and following sections of that Act. The Collector shall inform the Land Record-keeper of any mutations ordered by him under section 55 of the Land Registration Act.

15. Nothing in section 43 of Act VII (B.C.) of 1876 shall be held to exempt proprietors and managers of petty estates and petty revenue-free properties from the obligation to give the Land Record-keeper the notice required by section 14.

16 (i). Every person succeeding, whether by purchase, inheritance, gift, or otherwise to the position of a tenure-holder or under tenure-holder as defined in section 5 (1) of the Bengal Tenancy Act VIII of 1885, or to a raiyat holding at fixed rates within the meaning of section 4 of the same Act, or to the holding of an occupancy raiyat as defined in section 4 of the same Act, shall within four months from the date of such succession give notice to the Land Record-keeper of the circle in such form as may be prescribed by the Board of Revenue.

(ii) Such notice shall be held to be sufficient compliance with section 15 of the Bengal Tenancy Act VIII of 1885.

(i) It shall be the duty of the Land Record-keeper to notify the fact of such reported succession to the landlord or landlords of such person in the manner which may be prescribed by the Board of Revenue.

Provided that, when the person succeeding has caused the instrument by which the transfer has been made to be registered in the office of a registering officer, it shall not be compulsory on him to give notice also to the Land Record-keeper of the circle. It shall be the duty of the registering officer in all such cases to inform the Land Record-keeper of the succession or transfer.

17. A person giving the notice required under sections 14 to 16 shall be bound at the same time to tender such fee in cash or in stamps as may be prescribed by the Board of Revenue.

Section 85 of the Land Registration Act VII (B.C.) of 1876, so far as regards proprietary rights.

Such fees, other than fees payable to landlords, shall be credited to a fund to be called the "Land Record Fund" for the district.

All fees paid for copies of records maintained under this Act, searching fees and fines imposed under this Act, shall be credited to the same fund.

18. Whoever being required by this Act to give notice of succession to a proprietary right, tenure, or holding, shall omit to give such notice within the prescribed time, shall be liable to such fine as the Collector may see fit to impose, not exceeding one hundred rupees, and to a further daily fine not exceeding fifty rupees for each day during which he shall omit to apply for such registration after a date fixed by the Collector in a notice requiring him to apply for registration. Such fines shall be credited to the Land Record Fund of the district.

New.

19. Every holder of an estate or tenure, and every raiyat, shall, if so required by the Collector, within such time and in such manner as the Collector shall in a notice to that effect prescribe, and may at any time of his own motion, file in the office of the Land Record-keeper for the circle in which the land is situated such statements and shall furnish such information relating to the records and the changes to be made therein as the Board of Revenue shall from time to time by rule direct.

20. It shall be the duty of the Land Record-keeper of the circle to verify statements filed under the last preceding section or under sections 14 to 16 by local enquiry in the villages in such manner as the Board of Revenue may by rule direct.

New.

21. If any holder of an estate or tenure or any raiyat fail to file, or is not required to file statements under section 19, the Land Record-keeper shall prepare such statements, from information gathered by local enquiry on the spot or otherwise as the Board of Revenue may by rule direct.

New.

22. All Courts of Justice shall have regard to the statements prepared and verified under sections 19, 20 and 21 so far as they may be relevant on any question under enquiry before it affecting—

- (a) the situation, quantity, or boundaries of any holding,
- (b) the class to which any tenant belongs,
- (c) the rent payable,
- (d) the incidents of the holding,

and the contents of such statements may be proved by producing a certified copy signed by the Land Record-keeper.

23. When any mutation entry made by the Land Record-keeper or brought upon his records has been attested by a Revenue Officer, in a manner to be prescribed by the Local Government, the Courts shall presume that all entries shown as undisputed entries are correct until the contrary is proved.

New.

24. Whenever the holder of an estate or tenure, or whenever any raiyat, shall file in the office of the Land Record-keeper, the statements mentioned in the foregoing sections, the Land Record-keeper in whose office such statements are filed shall forthwith grant a receipt for the same, which shall bear the signature of such Land Record-keeper.

Land Record-keeper to grant a receipt for accounts filed.

Section 18 of Bengal Act IX of 1880.

25. All holders of estates or tenures, and all raiyats, who shall without sufficient cause being shown to the satisfaction of the Collector, refuse or omit to furnish statements required under section 19, shall be severally liable to such fine as the Collector may think fit to impose, not exceeding fifty rupees, for each such omission, and the Collector may impose such further daily fine as he may think proper, not exceeding ten rupees, for each day during which such holder or raiyat shall omit to furnish the statements required after a date to be fixed by the Collector in a notice warning the holder or raiyat that such daily fine will be imposed.

Such notice shall be served by tendering to the person to whom it may be directed a copy thereof attested by the Collector, or by delivering such copy at the usual place of abode of such person, or to some adult male member of his family; or in case it cannot be so served, by posting such copy upon such conspicuous part of the usual or last known place of abode of such person; and in case such notice cannot be served in any of the ways heretofore mentioned, it shall be served in such way as the Collector issuing the notice may direct, and the date fixed by such notice shall not be less than fifteen days after service thereof.

The Collector may proceed from time to time to levy any amount which has become due in respect of any fine imposed under this section, notwithstanding that an appeal against the order imposing such fine may be pending:

Provided that, whenever the amount levied under such order shall have exceeded one hundred rupees, the Collector shall report the case specially to the Commissioner of the Division, and no further levy in respect of such fine shall be made otherwise than by the authority of such Commissioner.

26. All fines imposed under this Act shall be recoverable by process of any law in force for the recovery of arrears of Government revenues.

Section 19 of Bengal Act IX of 1880.

27. From and after the expiry of the time allowed by the notice issued by the Collector under section 19, or from and after the time the statements are prepared under section 21, no holder of an estate or tenure and no raiyat shall be entitled to sue for or recover rent for any land or tenure situated in the district, or part of a district in which this Act is in force, unless at the time of instituting such suit or proceeding such holder or raiyat shall

file in the Court in which such suit or proceeding is instituted an extract from the record of rights relating to the holding, together with extracts of mutations of the khatam (if any) prepared and verified under sections 19, 20 or 21, or afford such other proof as shall satisfy the Court that such holder or raiyat has filed in the office of the Land Record keeper the statements mentioned in section 19 of this Act.

28. One or more Land Record Inspectors may be appointed in each local area for the proper supervision and control of the

Section 33 of India Act XIX of 1873.

Land Record-keepers in the discharge of their functions under this Act.

29. One or more District or Sub-divisional Supervising Officers of the rank of Deputy or Sub-Deputy Collector, who may be called Superintendents and Assistant Superintendents of

New.

Land Records, may be appointed for each district for the supervision and control of Land Record-keepers and Inspectors of Land Records.

30. It shall be lawful for a Land Records Superintendent and Inspector or within the limits of his local area, or part of a local area, and for a Land Record-keeper within the limits of his circle, to enter upon any lands situated within such limits respectively, and to make such enquiries and investigations as may be necessary for the purpose of obtaining information which he may be authorized to obtain under rules in that behalf made by the Local Government.

All persons shall, so far as possible, supply such information and facilitate such enquiries and investigations, subject to the penalties provided by Chapter X of the Indian Penal Code concerning contempt of the lawful authority of public servants.

Section 35 of India Act XIX of 1878.

31. Every Land Record-keeper, every Land Record Inspector, every Land Record Superintendent, and every person appointed temporarily to discharge the duties of any such office, shall be deemed to be a public servant within the meaning of the Indian Penal Code, and all official records and papers kept by any such officer under this Act shall be held to be public records and the property of Government.

Every order passed by an officer engaged in the maintenance of Land Records in any district shall be appealable to the Collector of the district.

32. Every order passed by the Collector of the district under section 18 or 25 shall be appealable to the Commissioner within one month of the date of such order, and the decision of the Commissioner shall be final.

33. The Local Government and the Board of Revenue, subject to the sanction of the Local Government, may from time to time make rules consistent with this Act--

- (a) regulating the appointment, control, discipline, and payment of all Land Record establishments;
- (b) prescribing the method and periods for making entries of mutations in the record of rights and village maps, preparing new editions of such records and maps and republishing them from time to time, or otherwise making them available for public information;
- (c) generally for the purpose of giving effect to the provisions of this Act;

and may from time to time, with the like sanction, repeal or alter any such rules.

34. In this Act the words and expression "annual value of land" (subject to section 6), "district," "estate," "holder of an estate or tenure," "the Collector," and "the Collector of the district," shall have the meanings attributed to them, respectively, in the Bengal Cess Act, 1880.

## SCHEDULE A OF ENACTMENTS TO BE REPEALED.

*See Section 2.*

Number of year.	Enactments repealed (abbreviated titles).	Extent of repeal.
Regulation VIII of 1793	Decennial settlement ..	Section 31 so far as it relates to khatungoes, and section 62.
Ditto V of 1816	Khatungoes, Katak, &c.	So much as has not been repealed.
Ditto XII of 1817	Patwaris	Ditto ditto.
Ditto I of 1819	Ditto	Ditto ditto.
Ditto VII of 1822	Settlement, Ceded and Conquered Provinces Katak.	Section 53, clause third.
Ditto XIII of 1825	Khatungoes	Sections 2, 3.

## STATEMENT OF OBJECTS AND REASONS.

1. A survey and record of rights has been undertaken of Bihar under Chapter X of the Tenancy Act, with the previous sanction of the Governor-General in Council, and similar operations have been completed in various parts of Bengal; but as circumstances alter from time to time, and a record of facts and rights true in one year will be inaccurate the next if there be no competent agency for its correction up to date, it is obviously desirable that such an agency should be provided.

2. The zamindars of Bihar and Bengal are bound by section 62, Regulation VIII of 1793 and Regulation XII of 1817, to keep in every village or circle of villages a patwari, one of whose duties it would be under the existing law to keep the village accounts corrected up to date, and by whom therefore the records might be maintained under the present law; but as the Patwari Regulation is cumbrous and some of its provisions difficult to work, while the agency of patwaris is deemed to be unnecessarily expensive; and as the landholders prefer to it a more economical agency, by which it is considered that the records can be properly maintained with less expense to the landholders and less inconvenience than would be entailed by the rigid enforcement of the provisions of Regulation XII of 1817, it is therefore deemed expedient to repeal Regulation XII of 1817, and to make provision for the maintenance of the record of rights in the manner provided in this Bill.

3. The Bill will be only extended to areas in which a record of rights has been made under Chapter X of the Tenancy Act, or any other law for the time being in force.

4. The maximum rate of cess leviable under the Bill will be altogether one-quarter of an anna per rupee on the rental, or about half-an-anna per acre to be realized from the zamindars and raiyats respectively. This amount will be about one-fifth of the cost of keeping a patwari in every village under Regulation XII of 1817.

5. Advantage has been taken in the Bill of the opportunity to facilitate the recording of changes of proprietary rights and generally to make more efficacious the provisions of the law for notifying transfers of proprietary and occupancy raiyats to the landlords and tenants concerned.

6. Power is taken under the Bill to make rules regulating the selection, duties and procedure of the establishment engaged in the maintenance of the records, but the maintenance of the land records will be confined to a record of changes in the more permanent facts of holdings and estates, and will not include facts relating to the payment or non-payment of rent for any particular period or holding.

7. Power is also taken to recover the costs of a survey and record of rights and a settlement of rents (not incurred in connection with a settlement of land revenue) by means of a temporary cess, instead of apportioning the costs under section 114 of the Tenancy Act. The effect of apportionment would be in the case of Bihar to necessitate the issue of some millions of bills, upon each of which recovery would have to be made. The issue of those bills, besides involving great delay, intricacy and inconvenience, would impose on the people additional cost in the shape of peons' fees and the pay of tahsildars and similar establishments. Doubtless also there would be the possibility of illegal exactions, all of which would be avoided by the procedure now proposed. Moreover, under the proposed procedure the cost of recovery of the survey and record of rights can be spread over a series of years instead of being realized in one lump sum.



(2)

DRAFT RULES UNDER THE LAND RECORDS MAINTENANCE BILL.

CHAPTER I.

*Pay, appointment, and punishment of Land Record-keepers.*

"Collector" in these rules includes a Deputy Collector

*Extent of Land Record-keeper's circles.*

1 The extent of the circle of one Land Record-keeper may be regulated, in the discretion of the Collector, either by extent of cultivated area or by amount of rental. If regulated by extent of area, it shall not ordinarily contain less than 20,000 nor more than 30,000 survey numbers.

*Pay of Land Record-keepers.*

2 The monthly pay of each Land Record-keeper shall be fixed by the Board of Revenue, but shall ordinarily not be less than Rs. 25 nor more than Rs. 50.

*Qualifications of Land Record-keepers.*

3. No person shall be appointed Land Record-keeper who is under the age of 18 years, or over the age of 40, or who has not passed a satisfactory examination in the following subjects:—

- (1) Reading and writing clearly in the language current in the district.
- (2) Elementary arithmetic.
- (3) Surveying by chain and offsets or by plane-table, map drawing, and elementary mensuration.
- (4) The rules regarding the duties of Land Record-keepers.
- (5) Board's Survey and Settlement Rules.
- (6) The Bengal Tenancy Act.

*Disqualifications for the office of Land Record-keeper, fines and dismissal of Land Record-keepers.*

4. The holding of any land, whether as tenant or proprietor, within or without his circle, shall be reported by every Land Record-keeper to the Collector, and may be a reason for his removal or dismissal if the Collector considers that he is thereby prejudiced in the proper performance of his duties.

5. A Land Record-keeper shall not engage in trade or money-lending.

6. Every Land Record-keeper shall reside within the circle, unless he shall receive the written permission of the Collector to reside without it.

7. If, after due enquiry, misconduct or neglect of duty is proved against a Land Record-keeper, he may be punished as a public servant under the Penal Code, or fined in a sum not exceeding three months' pay, or suspended, or dismissed, by order of the Collector.

8. A Land Record-keeper who is in debt to a zamindar or cultivator of his circle, or is in such a condition of pecuniary embarrassment as to render him, in the opinion of the Collector, unfit to discharge his duties, may be dismissed.

CHAPTER II.

*Duties of Land Record-keepers.*

It shall be the duty of every Land Record-keeper appointed under the Land Records Maintenance Act—

- I.—To make local enquiries and village inspections in the manner hereinafter prescribed for the purposes of preparing returns of mutations or changes to be made in the survey and settlement records and returns of areas sown under the principal crops of each harvest.
- II.—To receive from the landlords, tenure-holders and raiyats of his circle, and to preserve and maintain, reports of successions to proprietary, occupancy or other rights, and the returns and statements hereinafter prescribed, and to verify such returns and statements in the prescribed manner.
- III.—To keep up such registers, to prepare such returns, and to perform such other duties not inconsistent with the Land Records Maintenance Act, as the Board of Revenue may prescribe.

*Statements to be prepared by Land Record-keepers, or to be filed by landlords and tenants and verified by the Land Record-keepers.*

I. The following statements and returns shall be filed by landlords and tenants, if so required by the Collector, in the Land Record-keeper's office:—

- (1) *By landlords.*—*Dakhil kharij khewat* statements showing mutations occurring from time to time in the character or extent of proprietary interests.
- (2) *By landlords.*—*Dakhil kharij khasra* statements showing the mutations necessary to be made from time to time in the khasra, so far as they relate to lands unoccupied by raiyats, such as parti jungle, waste, &c.
- (3) *By landlords, or tenants, or both.*—*Dakhil kharij khatian* statement showing the mutations necessary to be made in the khatians.

These statements when filed will be verified by the Land Record-keeper in the manner hereinafter prescribed.

II. Should the landlords and tenants not be required by the Collector to file these statements, or, if being required to file them, they fail to do so, the statements shall be prepared and verified by the Land Record-keeper himself in the manner hereinafter prescribed.

*The dakhil kharij khewat.*

The proprietary rights and interests of every person who holds any right or interest in each mahal is recorded in the settlement khewat.

1. Every proprietor shall, if so required by the Collector, file in the Land Record-keeper's Office, within two months of the termination of each year, a statement showing the changes, if any, in the character and extent of proprietary interests which occurred during the preceding year.

2. The Land Record-keeper shall file the *dakhil kharij* statement given by the proprietor under the preceding rule in the Collector's or subdivisional office. He shall also note in his diary, and report from time to time to the Collector, any changes in proprietary interests of which he may have received information in the course of the year.

*The dakhil kharij khasra and khatians and field inspections.*

3. The Land Record-keeper shall make one or more visits to the village within the year, for the purpose of ascertaining the changes which should be made in the khasras and khatians, and for ascertaining the crops grown at the time of inspection. The dates of these inspections shall be fixed by the Collector of the district.

4. Before the date of the first visit after the commencement of the agricultural year of the district, the Land Record-keeper shall notify to the landlord the date of the proposed visit, and shall call upon him, if he wishes, to file in his office before such date, which shall not be less than two months after the termination of the agricultural year, a written statement showing the changes, if these have not been already reported, in the entries in the previous year's khasras and khatians which he (the landlord) alleges to be necessary on the ground of change of occupancy or otherwise, since the settlement records were made by the Settlement Officer, or since the last annual visit, as the case may be, and he shall also call upon him to attend personally or by authorised agent at the time of such visit. He shall also notify to the tenants collectively the dates of his visits, and shall call upon those of them in respect of whose holdings changes may have occurred since the commencement of the previous year, to attend for the purpose of causing such changes to be entered if such changes have not been already reported.

5. If the landlord file statements in accordance with the preceding rule, the Land Record-keeper shall proceed on the specified date to verify them in the village by enquiry from each tenant regarding the correctness of each proposed entry. Discrepancies between the landlord and tenant's statements will be dealt with in the manner prescribed below:—

- I. If the landlord and the tenants concerned agree that the proposed change should be made, it shall be recorded accordingly, a note being made that it was made by mutual consent and is an *undisputed entry*. No entry to which the landlords and tenants do not agree shall be recorded as an *undisputed entry*.
- II. If the landlord and tenant differ as to the propriety of the proposed change, the change shall not be entered in the record of mutations as an undisputed entry, but a note shall be made of the statements of both parties.
- III. If the proposed change relate to the transfer of a holding or part of a holding to which the landlord has not already agreed or does not agree, it shall be dealt with according to the following rules:—
  - (a) If the tenant named in the settlement record is dead, the holding should be recorded in the name of all the sons inheriting, and a remark to that effect will be made in the remarks column.
  - (b) If a tenant has sold the whole or part of his holding, and the purchaser holds a registered deed of sale and is in possession, his name will be entered in the khasra and khatian under the name of original tenant, and a remark will

be made in the column of remarks that the transfer has or has not been recorded in the landlord's office, as the case may be. The same applies to a holding or part of a holding alienated in any other way.

- (c) Holdings purchased at auction sales by the owners of the estate, if cultivated by a tenant, will be entered in the name of the tenant, and the words "purchase at auction sale by the owner" will be entered in the column of remarks.
- (d) When a tenant has purchased a holding at an auction sale in execution of a decree of a Civil Court, the name of the purchaser will be entered, and if mutation has not been recorded in the landlord's office, the name of the original tenant and the fact of sale will be recorded in the remarks column.
- (e) In the case of holdings sold in execution of decrees for debt to mahajans, &c., if the mutation has not been recorded in the landlord's office, but the purchaser is in possession, the name of the original tenant will be entered and the name of purchaser shown below it.
- (f) In the case of partitions of holdings by mutual consent which have not been recorded in the landlord's office, the name of the tenant given in the lists of tenants in the settlement records will be entered first, and the names of co-sharers after as joint-tenants, and a remark may be made that partition has not been recorded in the landlord's office.

6. If the landlord or tenant do not file the statement mentioned in Rule 4 on or before the date specified, or do not attend himself or by agent at the time of inspection the Land Record-keeper shall make the inspection in his absence, and shall prepare the *khassra* and *khatian dukhil kharij* statements from information obtained from the opposite party or otherwise in the village, and the party who does not attend is, for the purposes of sections 22 and 27 of the Land Records Maintenance Act, bound by such statements so prepared.

7. Either landlord or tenant may, at any time during the course of the year, before the date of the Land Record-keeper's inspection, notify to the Land Record-keeper any change which he may consider necessary to be made in the *khassras* and *khatians* in consequence of change of occupancy or otherwise during the year, and request him to make a record of the proposed change. It shall be the duty of the Land Record-keeper, as soon as conveniently may be after receipt of such request to verify the correctness of the proposed change by enquiry from the opposite party. If the proposed entry is admitted by the opposite party to be correct, a record of the change shall be made accordingly. If not so admitted, the statements of both parties shall be recorded and filed in the Land Record-keeper's office.

8. It will be the duty of the Land Record-keeper, on the request of any party who is interested, to survey any plot which may be the subject of dispute, or in respect of which it may be necessary to make a change in the *khassras* and *khatians*, and to assist so far as practicable either landlord or tenant in the preparation of the *dukhil kharij khewat*, *khassra* and *khatian* statements.

#### *Dukhil Kharij Khatians.*

9. *Dukhil kharij khatians* shall be filed by the landlord or tenants or both, if so required by the Collector, on the same date, or prepared by the Land Record-keeper himself and verified in the same manner as the *dukhil kharij khassra*, provided that the Land Record-keeper shall himself prepare a statement showing the names of non-occupancy riyats who have, by lapse of time, become settled riyats.

#### *Correction of maps at annual field inspection.*

10. During every annual tour the Land Record-keeper will carry a certified copy of the last year's *khewats*, *khassras*, *khatians* and map with him, and before making any fresh entry will himself ascertain whether any alleged change in the condition or occupation of the land has really taken place. The corrections, if any, will also be entered up in the original record.

#### *Rabi and Aghani field inspections.*

11. At the time of making annual visit for the purpose of correcting up to date the *knewat*, *khassras*, *khatians* and map described in the preceding rules, the Land Record-keeper will ascertain and record, field by field, the crops grown at each harvest of the agricultural year.

\*12. He will, if possible, make two other inspections on dates to be fixed in accordance with Rule 3 of this Chapter, for the purpose of ascertaining and recording separately the crops grown, field by field, for the *aghani* and *rabi* harvests.

13. He will ascertain the crops grown in each field by personal inspection, and shall himself prepare the statements of cropped areas in such forms as the Collector may direct with reference to the principal crops grown in the circle.

### SUPERVISION OF LAND RECORD-KEEPER.

#### CHAPTER III.

#### *Revenue Supervising Officers, or Superintendents of Land Records, of local areas.*

1. Land Record-keepers will be supervised by Land Record Inspectors, and both Land Record-keepers and Land Record Inspectors by Supervising Officers of the rank of

\* One inspection per year may probably be sufficient for all purposes.

Deputy Collector, and Sub-Deputy Collector to be called Superintendents and Assistant Superintendents of Land Records.

*Pay and Establishment of Land Records Inspectors.*

2. One or more Land Records Inspectors will be appointed in each local area for the supervision, maintenance, and correction of Land Record-keepers' records.

The salaries of Land Records Inspectors will, from time to time, be fixed by the Board of Revenue.

3. Ordinarily one Land Records Inspector will be in charge of 15 to 30 Land Record-keepers' circles.

4. There will be one Land Records Inspector at the head-quarters of each local area, who will be called the Sadar Land Records Inspector, to whom all the other Land Records Inspectors shall be subordinate.

*Qualification and appointment and duties of Land Records Inspectors.*

5. A list of approved candidates will be maintained in the Revenue office, and a copy of it will be forwarded to the Board of Revenue.

6. No person will be qualified for the office of Land Records Inspector unless he satisfies the Collector—

- (1) That he has passed the Entrance examination of the University, or is educated up to that standard.
- (2) That he bears a good character.
- (3) That he is not incapacitated by any physical infirmity for the performance of the duties of a Land Records Inspector.

7. Approved candidates will be required to pass examination in the following subjects before being appointed Land Records Inspectors:—

- (1) Mensuration, *i.e.*, surveying by plane-table and by chain and offset; computation of areas.
- (2) Land Record-keepers' and Land Record Inspectors' rules.
- (3) The Bengal Tenancy Act, Bengal Land Registration Act and Bengal Cess Act, and rules made under these Acts.
- (4) Board's Survey and Settlement Manuals.

But if the candidate has a certificate of competency as a surveyor from the Superintendent of Surveys, he will be excused from passing in (1), and will *ceteris paribus* have a preferable claim to appointment.

N.B.—*The intention is that ultimately all Inspectors shall be certificated by the Survey Department.*

8. The Land Records Inspector may be vested with the powers of a Revenue officer, under the Tenancy Act, for the purpose of section 23 of the Land Records Maintenance Act, and when vested with powers of a Revenue Officer shall attest all the undisputed entries of mutations made by the Land Record-keeper.

9. The Land Records Inspector will be responsible that the maps and records of every village in his circle shall be corrected and brought up to the prescribed date in accordance with these rules within four months of the termination of the agricultural year by the Land Record-keeper.

10. Each Land Record-keeper will be allowed a chainman-muharrir to be paid out of the Land Record Fund. One set of measuring instruments will be furnished by the Field Land Records Inspector to each Land Record-keeper in his circle, for the safe custody of which he will be responsible.

*Duties of Office Land Records Inspectors.*

11. The Sadar Office Land Records Inspector will be responsible—

- (1) For the custody and issue of forms to Land Record-keepers.
- (2) For the distribution of Land Record-keepers' salaries and keeping their pay accounts under such rules as may be issued by the Board.
- (3) For the supply of any information required by the Collector or other duly authorised public officer respecting entries in village records.
- (4) For the carrying out of procedure connected with the mutation of proprietary rights.

12. The Sadar Office Land Records Inspector will also maintain, under the control of the Superintendent of Land Records, registers showing—

- I.—Statistics of each year's cropped area.
- II.—Abstracts of mutations.

*Superintendents of Land Records.*

13. One or more officers for the supervision of Land Record-keepers and Inspectors will be appointed by the Local Government for every subdivision of a district.

The Superintendent of Land Records appointed under these rules will be a gazetted officer of the Imperial Civil Service, the Provincial Civil Service, or the Survey Department. He will be vested with all the powers of a Collector under the Tenancy Act, and with the powers mentioned in section 189 *b, c*, of that Act, provided that, except where otherwise prescribed by law, all orders passed by the Superintendent of Land Records shall be subject to the supervision and control of the Collector of the district.

*Duties of Superintendent of Land Records.*

14. The Superintendent of Land Records shall be generally responsible for the supervision and control of the Land Record-keepers and Land Records Inspectors of his local area.

15. It shall be the duty of the Superintendent of Land Records to visit the circle of every Land Record-keeper at least once every year, to examine registers kept in the Land Record-keeper's office, to attest the accuracy of as many as possible of the undisputed entries which have not been attested by a Revenue officer in the manner prescribed.

16. He shall be responsible for the preparation and maintenance, in accordance with these rules, of all such registers, returns, and reports as are prescribed, or as may hereafter be prescribed.

*Rules relating to reporting of transfers of proprietary and occupancy rights,  
sections 13, 14 and 15.\**

- (1) All transfers of proprietary rights shall be reported to the Land Record-keeper under section 14 in the form given in the Appendix (Form E of Board's Land Registration Manual, page 65).
- (2) Every such notice for recording mutations shall, as at present (rule 4, chapter V, Board's Land Registration Manual), bear a stamp of 8 annas.
- (3) The Land Record-keeper, on receipt of such notice, shall satisfy himself that the form has been properly filled up, and that the application has been subscribed and verified by the applicant, and shall transmit such notice through the post-office in a cover prepaid with service stamps to the Superintendent of Land Records.
- (4) The Collector shall ordinarily delegate to the Superintendent of Land Records, under section 84 of the Land Registration Act, all the powers which he is empowered or required to perform under that Act, except in respect of appeals; and the Superintendent shall exercise *all such powers* on receipt of such notice under rule 4, section 85 of the Land Registration Act Rules.
- (5) Every order passed by the Superintendent of Land Records shall be appealable to the Collector of the district.
- (6) The Superintendent of Land Records shall discharge the functions of a Collector for the purposes specified in sections 12, 13, 14, 15 and 16 of the Tenancy Act, and in the rules made by the Local Government under these sections relating to the service of notices (rule 1, chapter V of the Tenancy Act Rules).
- (7) The scale of fees for service of notices to be served by the Superintendent under the preceding rule shall be those prescribed in chapter VII of the Bengal Tenancy Act Rules.
- (8) Notice of succession to occupancy holdings, whether by purchase, inheritance, gift, or otherwise, shall be given to the Land Record-keeper in a form to be prescribed by the Board.
- (9) The Land Record-keeper, on receipt of notice under the preceding rule, shall cause it to be served on the landlord in the manner prescribed in rule 7, chapter V of the Tenancy Act Rules.
- (10) A mutation fee of                      shall be payable on each transfer reported under the preceding rule, and a fee for service of notice on the landlord in the scale prescribed in chapter VII of the Tenancy Act Rules (1, 2, 3 and 4).

\* NOTE.—The effect of these rules will be that notice of mutations in proprietary rights will be given to the Land Record-keeper in the circle instead of to the Collector at head-quarters of the district. The Land Record-keeper will transmit the notice to the Superintendent, who will take such action as the Collector now takes, subject to appeal to the Collector. The scale of fees will be that now paid.

As regards successions to occupancy rights, the effect of the rules will be that notice of such successions will be served on the Land Record-keeper, who will have them given to the landlord. The scale of fees to be paid for service of such notice will be that now paid for service of notices under chapter V of the Tenancy Act Rules, with an additional mutation fee of eight annas for each succession.

ENCLOSURES TO MINUTE II, DATED 20<sup>TH</sup> SEPTEMBER 1893, ON  
THE CADASTRAL SURVEY OF BIHAR,—BY HIS HONOUR THE  
OFFICIATING LIEUTENANT-GOVERNOR OF BENGAL.

- Enclosure I.*—Extract from the Officiating Lieutenant-Governor's speech delivered in Darbar at Bankipore on the 31st July 1893. (Referred to in paragraph 3 of the Minute.)
- Enclosure II.*—Memorial presented to the Lieutenant-Governor at Muzaffarpur, on the 4th August 1893, by the Bihar Indigo Planters' Association, and His Honour's reply thereto. (Referred to in paragraph 4 of the Minute.)
- Enclosure II-A.*—Opinion of the Hon'ble Sir G. H. P. Evans, K.C.I.E., on the position and duties of patwaris.
- Enclosure III.*—Letter No. 826A., dated the 14th August 1893, from the Hon'ble C. C. Stevens, Senior Member of the Board of Revenue, to the Secretary to the Government of Bengal, in the Revenue Department, to which are appended the Minutes of the proceedings of two Conferences held at Muzaffarpur on the 3rd and 5th August 1893, and a letter, dated the 7th August 1893, from Babu Ram Dhari Sahai, Honorary Secretary, Tirlut Landholders' Association, to the Secretary to the Board of Revenue, Lower Provinces, and Government order, dated the 15th August 1893, addressed to the Board of Revenue. (Referred to in paragraph 5 of the Minute.)
- Enclosure IV.*—Letter from Babu Ram Dhari Sahai, Honorary Secretary, Tirlut Landholders' Association, dated the 21st August 1893, to the Secretary to the Government of Bengal, Revenue Department, forwarding two resolutions of the Tirlut Landholders' Association, and letter No. 896T.—R., dated the 1st September 1893, from the Officiating Secretary to the Government of Bengal, Revenue Department, to the Honorary Secretary, Tirlut Landholders' Association. (Referred to in paragraphs 5 and 57 of the Minute.)
- Enclosure VI.*—Minute by Mr Henry Colebrooke, Member of the Board of Revenue, dated the            November 1814, referred to in paragraph 17 of the Minute.
- Enclosure VII.*—Extract from a letter from the Court of Directors, dated the 12th July 1820, to the Government of India, Territorial Department. (Referred to in paragraph 19 of the Minute.)
- Enclosure VIII.*—Mr. Chamberlain's letter, dated the 18th April 1819, to Board of Revenue; Board's letter, dated the 18th May 1819, to Mr. Chamberlain; and Board's Resolution, dated the 11th June 1819, regarding the salary of, and forms of accounts to be kept by, patwaris. (Referred to in the footnote to paragraph 19 of the Minute.)
- Enclosure IX.*—Letter from the Members of the Board of Revenue, No 2199, dated the 11th May 1827, to the Hon'ble Vice-President in Council. (Referred to in paragraph 22 of the Minute.)

## ENCLOSURE I.

*Extract from the Officiating Lieutenant-Governor's speech delivered in Darbar at Bankipore on the 31st July 1893, referred to in paragraph 3 of the Minute.*

GENTLEMEN, I now wish to say a few words to you in connection with a subject which is engaging your thoughts, namely, the survey and settlement in progress in the northern districts of the Division; and the points to which on this occasion I wish particularly to invite your attention are how the work can be best and most cheaply done; and how, when done, its good effects may be perpetuated. I will first speak to you on the second point, namely, the maintenance of the record when it has once been correctly made. Gentlemen, I have spoken to many landlords within the last two months on this subject, and there was not one who did not confirm my own long-standing conviction that if the survey is made at all, it ought, when completed, to be maintained up to date. We know that changes in holdings are of constant occurrence through deaths, transfers, successions, reclamation of waste lands, division of fields, and so forth. So that, if no means of annually adjusting the record to these changes is adopted, the record will have become wholly obsolete in a few years, while from the first year it would be growing more and more discredited for judicial or administrative purposes. That would mean the speedy renewal of the state of chaos and the numberless embarrassments we suffer from to-day. No one, and perhaps least of all myself, can regard that result with equanimity; and in this I only express the view of the Government of India. The case with which we have to deal is therefore simplified. We have to maintain the village map and revise the village record by annual corrections made on the spot; for under these conditions only can the record be effectively used for those judicial and administrative purposes for which it is intended. The maintenance of the record can be effected by more agencies than one, and the initial question for you, gentlemen, now to consider is, will you have the record maintained through the patwari after he has been brought under Government control in all respects, or will you have it maintained through another agency to the exclusion of the patwari altogether?

It is to learn your wishes on this point among others, and having learnt them to discuss with you a plan of maintenance, that I am going to Muzaffarpur. The survey and settlement now in progress will bring on record such essential facts as the proprietary rights in each estate, the ownership and occupancy of each field, the status of the tenants, the conditions of the holding, and the rent payable. These are facts which the State should have permanently on record. If such a record were available always, we might with confidence look forward to an era when there would be in Bihar due protection of agrarian rights and due and speedy disposal of disputes in the courts or out of them.

The other point to which I referred above, namely, the means by which the survey and record can be most cheaply and efficiently made, is one of detail, which can perhaps be more conveniently discussed in conference than in Darbar, but there is one important aspect of it on which I wish to say a word, and that is the employment of the patwari on survey work. I have invited the landlords of Bihar to register their patwaris under Regulation XII of 1817, and thus enable the Government to employ them as public servants in making the survey whereby a substantial reduction would be effected in the cost of the work. But my invitation has not been largely responded to, landlords being unwilling to give patwaris the status of public servants, though willing, I understand, to lend us their services gratuitously, while themselves retaining the control of a master over them. Gentlemen, I am entirely opposed to employing any person in making the survey or preparing the record who is not absolutely under the control of the Government and liable to punishment as a public servant for misfeasance. The survey and the record must be prepared under conditions which shall relieve it, so far as we can guarantee, from any suspicion of one-sidedness, and for this reason I cannot agree that a mere servant of the landlord or of the raiyat shall make the survey or prepare the record. As the record is to be an impartial statement of the rights and obligations of both landlords and raiyats, it is obviously unreasonable that the work should be done by a partisan of either party. No; there must be no room for doubt in this matter or for such a rebuke as the Judicial Committee of Her Majesty's



Privy Council recently administered to the authorities in another Province who allowed a record of rights to be prepared by one of the parties to a settlement. I cannot allow any patwari to be employed in these operations unless he has been previously registered under Regulation XII of 1817, and so brought under Government control as a public servant.

Gentlemen, when I invited you last June to register your patwaris under Regulation XII of 1817, my object was to reduce the cost of the survey, the registered patwari being bound to survey his village as part of his statutory duties. I had not at that time worked out the problem of the subsequent maintenance of the record. I have since done this to some extent, and I now wish to say that if you elect for maintenance of the record through the patwari under Regulation XII of 1817, or such amendment of it as may be found necessary, the patwari must be registered, and it is in that case obviously convenient and proper to register him at once, and so save expense in the survey, while fitting him for the work he will have to do later on. But in case you elect for maintenance of the record otherwise than through the patwari, then I am not greatly concerned to press you to register your patwaris under the Regulation. If you elect to have the work done through the more expensive agency of amins to the exclusion of the patwari altogether, I shall not contest your choice, though I may regret it on the grounds of economy. All I would insist on is that you make a definite choice one way or the other.

Gentlemen, there are other important points connected with this subject which I have to discuss with you or your representatives, but I do not think that it is necessary for me to say more on the present occasion. I am going to Muzaffarpur with the object of discussing all these matters with you, and I trust our discussion may result in an agreement equally satisfactory to you, to the raiyats, and to the Government. I wish to meet you in a friendly spirit, and with the desire to adjust differences of opinion amicably, and so far as the best interests of zamindars and raiyats will permit; for, apart from the general well-being of the Province and the people, the Government itself has no interest, pecuniary or otherwise, in the matter. As the Governor-General in Council said in his Despatch of 21st March 1892 to the Secretary of State in connexion with this very question of the record of rights in Bihar: "We seek no fiscal advantage, but the prevention or diminution of human suffering." I would remind the landlords—and in that term I include the Indigo Planters of Bihar—that we are now engaged with no question of organic change in the Tenancy Act, but in giving effect to those provisions of that Act which were specially made in the interests of Bihar. The task ought not to be difficult to those approaching it in a fair and reasonable spirit. Gentlemen, I do hope that between us the rights of all parties will be attended to and secured, and that we shall prevent this great measure, conceived in the best interests of the classes most connected with the soil, from proving as prejudicial to them as some well-intentioned enactments—the *Hafsum* and *Panjam*, for instance—before now have done. It only now remains for me, gentlemen, to thank you for the attention with which you have listened to me, and to bid you for the present farewell.

#### ENCLOSURE II.

- (1) *Memorial presented to the Lieutenant-Governor at Muzaffarpur, on the 4th August 1893, by the Bihar Indigo Planters' Association, and enclosure.*
- (2) *His Honour's reply thereto.*

[These documents are referred to in paragraph 4 of the Minute.]

(1.)

MOST RESPECTFULLY SHEWETH—

That Your Memorialists desire most sincerely to welcome Your Honour on your visit to the Province of Bihar. Your Memorialists feel that it is a great privilege to be brought into personal contact with the ruler of the Province; and Your Memorialists will therefore avail themselves of this opportunity of respectfully submitting for Your Honour's consideration the following representations in connection with the administration of the Province.

2. That Your Honour is aware that Sir Charles Elliott directed that a cadastral survey should be made of that part of the Province of Bihar which comprises the districts lying to the north of the river Ganges. One of the



great inducements held out to the landed proprietors of Bihar to compensate them for the harassment and expense which a Government survey necessarily involves was that on the completion of the survey the patwaris, who are admitted to be notoriously corrupt, should cease to be Government servants, and that it should be optional with the zamindars, who paid them, to retain them or not as they pleased for the purposes of collection. The second inducement held out to the zamindars to consent to the survey was that the survey would be obviously to their advantage, as all excess land found in the possession of the raiyats would be assessed with rent, and instances were given in official papers, published in the *Calcutta Gazette*, of several estates which had been surveyed by the Government, with the result that the rent-roll of the zamindars of those estates had been considerably increased owing to the assessment of this excess land which the raiyats had annexed to their holdings. That a further inducement was also held out to Your Memorialists that on the completion of the survey the Government would give to the zamindars by a summary procedure increased facilities for the collection of their rents.

3. That moved by these considerations many of Your Memorialists submitted without remonstrance to the orders of Government. They trusted to the promises of Government that the patwaris should cease to be retained as Government servants, and that the excess land, misappropriated by the raiyats, should be assessed with rent; and that after the completion of the survey, a simple procedure would be provided, to enable them to realize the rents which the survey record might declare them to be entitled to.

4. That Your Memorialists now desire to bring to Your Honour's notice that so far none of these promises have been fulfilled. During the survey operations of the present year in no case has excess land been assessed: and though Sir Charles Elliott said that the present survey would put an end to all litigation, Your Memorialists have been told that if they desire to assess the excess land held by the raiyats they must bring a separate suit either before the Revenue Officer or in the Civil Court for such assessment. The discovery of excess land by the survey officers is of no avail, if the survey measurements are not to be accepted as evidence of such excess, and if after all the trouble and expense of the survey the zamindars have to recommence proceedings afresh by instituting a separate suit against each raiyat. The survey authorities, Your Memorialists submit, are bound to take cognizance of such excess, unless such excess is so small as can be accounted for by the increased accuracy of the present survey measurement as contrasted with the former chain measurement. Where this excess is apparent the onus clearly lies on the raiyat to show that he is entitled to hold the excess land without an increase of rent. This is all Your Memorialists ask for: and if this is not granted, Sir Charles Elliott's promises are simply illusory; and no possible advantage can be obtained by the zamindars from the present survey.

5. That Your Memorialists would next submit that nothing could be clearer than Sir Charles Elliott's promises with regard to patwaris. He accepted the universal opinion of the Bihar landholders that the patwaris as a body were thoroughly corrupt, and that they ought no longer to be retained as *quasi* Government servants. In direct opposition to this opinion and promise is the circular of the Director of Surveys No. 133R.B.T of the 5th June 1893. That circular is stated to have been issued under the orders of Government; and so far from abolishing patwaris as *quasi* Government servants, it is ordered that patwaris are to be professionally instructed to survey their own villages, to extract the areas of the raiyats' holdings, and generally to prepare the village record, and when the village record has been prepared, these same patwaris are to be retained as Government servants, to enter in the survey map and record any changes which may have taken place in the village holdings. Your Memorialists therefore would respectfully ask whether the promise of Sir Charles Elliott with regard to the abolition of patwaris is to be carried out or not.

6. That Your Memorialists would further observe, with respect to the Government orders of the 5th June alluded to in the last preceding paragraph, that in no part of Bihar, as far as their experience extends, have patwaris ever been placed in charge of survey work. When a survey of a village is made by the zamindar, it is always made by independent amins; never by a patwari.

The great object of a survey is to check the proceedings of the patwari: and Your Memorialists strongly object to the Collector being directed to employ their patwaris on survey work without their consent. The patwari is the zamindar's servant and is paid by him, and if the patwari is withdrawn from his legitimate duties to be employed as a Government amin, it is obvious that the collection of rents will be most seriously interfered with. Your Memorialists would further remark that they have been advised by eminent counsel in Calcutta that the Collector has no authority under Regulation XII of 1817 to take away the patwaris from their legitimate duties as village accountants to be employed on Government survey work. Your Memorialists beg to annex a copy of this opinion, and they would ask Your Honour to take into your consideration and pass such orders as to Your Honour may seem proper.

7. Your Memorialists have watched with satisfaction the evident desire of Your Honour's Government to reduce the cost of the survey to both landlords and tenants, but they fail to see how the cost of this survey will be in any way lessened to them by the employment of their registered patwaris on survey duties, unless it is thoroughly understood by the patwaris that such employment is not to excuse them from the fulfilment of their other and, to them, more important duties, and that should it be necessary to employ other agencies to carry on such duties, the extra expense will be met by Your Honour's Government or by the registered patwari whose duty it is to fulfil them.

8. That Your Memorialists would further ask Your Honour explicitly to declare what is the intention of Government with regard to the maintenance of the record of rights. In preparing this record of rights the Government are professedly acting under the procedure of the Bengal Tenancy Act. That Act makes no provision for maintaining the record when once complete. The record is a judicial record, and no changes can be made in it without the zamindar's consent or by an order of the Civil Court. To allow patwaris to make changes in a judicial record seems to Your Memorialists utterly indefensible, and Your Memorialists must respectfully protest against any power being given to the patwaris, or to any one else, to make alterations or changes in their rent-roll without their consent. To allow executive officers of Government or a patwari to make changes or alterations in a village rent-roll, would simply deprive the proprietors of all control over the management of their estates.

9. That Your Memorialists have further been informed that it is in the contemplation of Government to maintain a staff of Inspectors to keep up and maintain the survey records, and that a cess is to be imposed upon the zamindars to defray the expense of these establishments. Speaking from their practical knowledge of zamindari affairs, Your Memorialists are convinced that it is impossible for Government to devise any scheme by which they can, without a resurvey, ascertain and record the innumerable changes which take place in these small village holdings. Your Memorialists are further of opinion that it will be impossible to devise any scheme for keeping up the record that will not be inquisitorial and onerous in its methods until the law of transfer of occupancy holdings has been put upon a firmer and more satisfactory footing. At the same time Your Memorialists are aware that the Government attach great importance to the maintenance of the record, and they are prepared to consider any scheme by which this object can be effected with the minimum of interference and the minimum of expense.

10. That there is one further matter which Your Memorialists would respectfully submit for Your Honour's consideration. This survey, as Your Honour is aware, was ordered by the Government of its own motion. Neither the zamindars nor the raiyats applied for a survey. In other parts of India, including the permanently-settled districts of the North-Western Provinces, the whole expense of the cadastral surveys was borne by the Government. In Bihar the Government have decided to bear only  $\frac{1}{4}$ th of the cost. As the survey is the act of the Government and is required for administrative purposes, Your Memorialists naturally are unable to understand why the province of Bihar should be treated less liberally than the permanently-settled districts of the North-Western Provinces, and they would respectfully ask Your Honour to take this matter into your serious consideration.

And Your Memorialists as in duty bound will ever pray.

## OPINION ON THE EMPLOYMENT OF PATWARIS ON GOVERNMENT SURVEY WORK.

We have before us a case stating the views of certain zamindars and ~~patwaris~~ as to patwaris and their present duties, the Blue Book of Bihar correspondence published and printed by order of the House of Commons on 17th May 1892, and a letter from Secretary, Government of Bengal, to Secretary, Board of Revenue, dated the 6th June 1893. The main questions are—

- (1) Whether it is part of the customary duty of a patwari to make a survey of his village, cadastral or otherwise.
- (2) Whether he can be compelled to learn professional or scientific surveying.
- (3) Whether he can be compelled to do the work of a professional surveyor or of a survey amin.
- (4) Whether he can be dismissed for refusing to learn scientific surveying or for refusing to make or fill in a map of his village on modern scientific principles or in any way.

(1) *As to the duties of patwaris*—This question arises on section 16 of Regulation XII of 1817, clause 1:—"To keep such register and accounts relating to the village or villages to which he is appointed, in such manner and form as has hitherto been the custom, or in such other mode as may be hereafter prescribed by the Board of Revenue, together with such further registers and accounts as may be directed by those authorities respectively.".... "To perform all other duties and services which it has been customary for him to execute."

It is now proposed by Government that the Board of Revenue should order the patwaris to make or fill in the details of village maps by scientific survey, and to order that they should attend instruction in surveying, and should be dismissed by the Collector on the ground of "neglect of duty or other sufficient cause," under section 15, should they not qualify themselves in surveying and make the survey. *Prima facie* it would not occur to any one that the making of maps and surveying was included in keeping "registers and accounts relating to the villages," and as regards customary duties, it must, we think, be admitted that no patwari has from 1817 to the present time ever made a map as part of his duty as patwari. But we understand it to be stated by Government that under the rules of the Board of Revenue as at present existing, they are bound to make and keep a register of the area of each raiyat's holding and of the amount of waste land, &c., in each village, and that for this purpose they are bound to and are in the habit of making a rough pole or latakhatta measurement, amounting to a rough survey of the villages.

On this it is contended that it would not be beyond the power of the Board to order them to make, in addition to the measurement of the area of holdings, a map or sketch showing the relative position of the various plots mentioned in their register or account of areas, so as to render it readily intelligible.

It is further contended that it is within the power of the Board to order them to make such rough measurement as they are said now to make, and further to embody it in a rough or a sketch map, it must be within their power to order them to make an accurate measurement and an accurate map. That this can only be done by a survey on modern scientific principles by means of a compass and by observing and recording angles in such a manner that the plots of land shown in the field book and map can be accurately laid down on the ground by competent surveyors as soon as any two points in the map are identified in the locality.

This is going a great way, and if this view be carried to its full extent, it will enable the Government to convert the ancient village accountants (which was the original function of the patwaris) into a trained body of scientific survey amins to be paid by the zamindars.

The zamindars in the case laid down before us contest the view held by Government as to the existing duties and actual work done by the existing patwaris in Bihar in zamindaris not owned by Government or worked through Government officials; they state that it has not been the practice for patwaris to measure, but only to record the measurement made by the zamindar's amins or register the areas according to his measurement, and that if in filling up the Board's form as to the area of each raiyat's field in details, the patwari writes out something like a khasra, it is not an independent measurement, but taken from the zamindar's measurement chittas. If this is so, an essential fact upon which the contention of Government rests being wanting, this contention would apparently have no basis to stand on. On this question of fact we can express no definite opinion. But it is to be noted that when it was stated by Mr. Finucane in his note of 2nd January 1891 (Blue Book, page 170) that "the survey of their several villages is admittedly one of their customary duties and one which they in fact now perform in every district in Bihar, though in a rough and unscientific manner," the Board of Revenue remarked (page 150)—"It is not clear, although patwaris now occasionally measure lands in the villages, that surveying is part of the customary duties"; and the Collector of Champaran says, "almost every patwari can roughly measure land, and they are often employed by the zamindars for this purpose." But the Collector evidently was not aware, nor was the Board, that patwaris were habitually being employed under the rules of the Board itself to make measurements as now asserted as part of their official duties. In Mr. Risley's letter it is put thus—A specimen of the village survey record as now proposed was produced at the meeting, and it was pointed out what it was proposed the patwaris should do. "This, it was pointed out, does not differ materially from the field measurement which admittedly forms part of his customary duties. It was also argued that the khasra or register of fields is such a register as the Board might reasonably prescribe, and have in former years prescribed, as a register to be kept by the patwaris under the

Regulation, and that the keeping of such a register necessarily involves and implies the preparation of a village map without which the khasra would be incomplete and unintelligible."

We have referred to the Board's Rules—Manual of Powers, &c., of Revenue Officers (1888), pages 37 to 41, and do not find this statement borne out.

Rule 14, page 38, provides that patwaris shall keep registers and accounts relating to the village in the forms annexed to the rules. Form No. 1 is headed "Annual account current of the village of . . ."

It contains, amongst others, the following columns to be filled up:—

- (a) Total quantity of land. (This, we take it, he is to get, like the Government revenue, from the existing records.)
- (b) Quantity not paying any rent, arranged under different heads. (It does not appear from what sources he is to get the information, nor is it stated that he is to measure or produce or keep a measurement paper or khasra of these matters.)
- (c) Quantity of land held by each raiyat, with detail of field B, C, D. *Name or number of field.*

(The last direction appears to mean that if the fields happen to be numbered, which they would be where a "khetbat" measurement existed, he was to record the number of the plot. If there was no such measurement, and the field had therefore no number, he was to give the name only. This rather rebuts the idea that he was to make a khasra measurement of his own for the whole village—certainly he is not expressly directed to do so.)

The result of this form is that he is nowhere told to make a khasra measurement, though it is possible that he might in some cases have to make rough measurements of separate holdings in order to ascertain the area, though if there was a patta he would, it may be supposed, take the area from that or from the jamabandi or the zamindar's chittas of measurement.

Rule XVII, which provides it shall be the duty of the patwaris to carry out any orders given by the Collector with reference to the survey or measurement of land by order of a competent court or officer, evidently refers to ordering the presence of the patwaris to give information, and is against the idea that the Collector could order the patwari himself to make an independent survey. Assuming, however, that patwaris, or some of them, have, for the purpose of keeping these accounts and registers in the prescribed form, been in the habit of making a rough measurement of holdings with a pole or rope, and calculating the area, this is quite a different thing from surveying, and particularly from the land surveying of modern days. The main object of a survey is not only to get the area of any particular plot, but so to describe each plot in reference to other plots, that the position on the earth's surface of that plot and all other plots in relation to each other shall be in futuro ascertainable by a scientific process by means of the map and field book of the survey as soon as any point in the map is identified with any existing mark on the land.

This scientific survey has been going on on a large scale under a regular Survey Department of the Government of India since the Act of 1847, and is now governed as to Bengal by the Survey Act of 1875. The patwaris have never been employed by Government as survey amins so far as we can learn. As to the older measurement that used to be made, there is no trace in Regulation XII of 1817 of any duty of patwaris in connection with measurements. Had it been the duty of patwaris to make measurement chittas or khasras of the villages, we should have expected to find such papers produced in courts of justice as entries made by an official in the course of his official duty or as official registers, and we are aware of no such case. It is noteworthy that it was the duty of the kanungo under Regulation V of 1816, section 7, clause 6, to "assist at all admeasurement of land, whether undertaken by the officer of Government in conformity with the Regulation, or by the landholder or raiyat, and to record the same." The opinion of the Advocate-General referred to by Mr. Risley appears to have been given orally at the Conference upon hearing the views and arguments then set forth, and assumes the accuracy of the statements and views laid before him. It is to be noted that the other members accepted the opinion as an exposition of the law, but it is not stated whether the members of the Board altered their views as to what the patwaris had actually been in the habit of doing.

Reviewing all the materials available to us, we are of opinion that unless it can be shown that surveying was one of the customary duties of patwaris by ancient and general custom, the new rules will radically alter the scope of the patwari's duties and cast entirely novel duties upon him and turn him into a survey amin—that such a change is not warranted by the Regulation and does not come under the head of "Keeping registers and accounts"—that the patwaris cannot legally be compelled to learn scientific surveying or discharge the duties of surveyors, though illegal pressure may be brought upon them to do so—and that the attempt to make the zamindars support a body of trained surveyors under the name of patwaris is not warranted by the existing law.

The 11th July 1893.

G. H. P. EVANS.  
W. C. BONNERJEE.

(2)

#### THE OFFICIATING LIEUTENANT-GOVERNOR'S REPLY.

GENTLEMEN,—I thank you for your welcome to Bihar. Though I come among you now for the first time as Lieutenant-Governor, you all know that

I am no stranger to the province. Some of you will even remember that I served here for seven years during times of difficulty, and that I then took an active interest in the questions to which you refer in your memorial. In returning to those questions now, I claim to speak, not as a novice in the law and custom of Bihar, but as one who has studied the subject carefully, and who has at least had exceptional opportunities for learning what the intentions of the Government and the Legislature were in respect of the Bihar land question when the Tenancy Act was under discussion. With these introductory remarks, gentlemen, I will proceed to examine the substance of your memorial.

The first statement which I have to notice is the following:—"One of the great inducements held out to the landed proprietors of Bihar to compensate them for the harassment and expense which a Government survey necessarily involves was that, on the completion of the survey, the patwaris, who are admitted to be notoriously corrupt, should cease to be Government servants, and that it should be optional with the zamindars, who paid them, to retain them or not as they pleased for the purposes of collection." Gentlemen, I have been unable to ascertain on what authority you base this statement. So far as I have been able to ascertain from the official records, it has never been, and it is not now, the policy of the Bengal Government to abolish the existing patwari system without substituting for it another agency to maintain the record. Such a policy as you impute to the Bengal Government would require the sanction of the Government of India, and I greatly doubt, having regard to the importance rightly attached in all other provinces to the correct maintenance of the record of rights, whether the Government of India would have countenanced it, even if recommended by the Government of Bengal. If you desire to abolish the patwari, your road lies through what Sir Charles Elliott described as "a complete and practical scheme of maintenance of the settlement record" by an agency other than that of the existing patwari.

The next statement which I have to consider is to the following effect:—"The second inducement held out to the zamindars to consent to the survey was that the survey would be obviously to their advantage, as all excess land found in the possession of the raiyats would be assessed with rent, and instances were given in official papers, published in the *Calcutta Gazette*, of several estates which had been surveyed by the Government, with the result that the rent roll of the zamindars of those estates had been considerably increased owing to the assessment of this excess land which the raiyats had annexed to their holdings." Here too, gentlemen, I must say that I have been unable to find in the records of the Government any evidence to bear out the statement made in the memorial. Indeed, gentlemen, there are certain important considerations conflicting with it to which I would beg your leave to invite attention. The various matters dealt with in a survey and record of rights are of two kinds—matters which the Government can deal with within certain limits by executive order addressed to the Settlement Officers; and matters fixed by substantive law, concerning which the Government is not competent to issue any orders at all. Now this question of land, said to be held in excess of that for which the tenant is paying rent, belongs to the latter class. It is regulated by law, and the interpretation of the law rests, not with the Executive Government, but with the Judicial authorities. In a recent case arising out of the settlement of the Burdwan estate—a case to which your attention has doubtless been drawn in connexion with this question—the High Court observed: "It is for the zamindar who seeks for a settlement of these lands to show that they are in excess of those for which rents are being paid, and to do this it is for him to show what those lands are, what were the terms of the original settlement, and whether it was by any, and if so by what, process of measurement." That decision gives an authoritative exposition of the law on the subject of excess lands, and the Government is unable, even if it were inclined, to do anything to alter it.

The procedure in the matter seems clear to me. The landlord who considers that his tenant is holding land in excess of that for which he is paying rent, may, while the settlement is still going on, apply to the Settlement Officer to fix a fair rent for the entire holding; and that application will be adjudicated on by the Settlement Officer acting as a Civil Court. Or he may wait till the settlement is over and file a suit for the assessment of the land alleged to be in excess. He will not, I am advised, be estopped,



or hampered in these proceedings by the entry in the settlement record as to the rent of the holding, for that entry, even if allowed to go undisputed, will not be conclusive as between the parties.

It is suggested, however, by your memorial, that if on a comparison of the survey measurement with the area entered in the landlord's jamabandi, a tenant seemed to be holding more land than he was paying rent for, the Settlement Officer was bound *suo motu* to assess rent on the apparent excess, and the Government is, I presume, urged to direct him by executive order to do so. That opinion, gentlemen, struck me at once as erroneous. It seemed to me out of the question that Government should have the power by executive order to require the Settlement Officer to take judicial notice of the landlord's private papers, and more especially when the effect would be to shift the burden of proof from one party to the other, and thus to reverse one of the most important provisions of the substantive law. But in a matter of such importance I did not wish to rely upon my own judgment, and I therefore referred the question to the Law Officers of Government. I am now advised by them that the opinion I have referred to is without doubt erroneous, and that the burden of proof which the law imposes on the landlords cannot be removed from their shoulders by any order of the Executive Government. The Settlement Officer cannot proceed to assess rent on excess area unless it appears from legal evidence, which would ordinarily be adduced by the landlord in discharge of the burden of proof laid on him by the law, that the land for which rent is claimed is in fact in excess of that for which rent is being paid.

Gentlemen, I feel bound to add, though the opinion will hardly be welcome to some of you, that I entirely agree with the Law Officers, not merely on technical grounds, but in view of the general equities of the case. It is known to those with experience of Bihar—I refer especially to the more densely populated district—that in past years the enhancement of a raiyat's rent by the order of a landlord was not a matter of uncommon occurrence. Nor is the fact a remarkable one. Such things have been done in most countries in the world, where circumstances rendered them possible. But the practical effect of such enhancements was to impose an assessment on the excess area, and whenever this has occurred, the existing rent in Bihar is really a consolidated rent for the holding. Moreover, it must be remembered first that, under the indigenous system of measurement, the *aile* or partitions between fields were excluded from survey, while under the scientific system they are included; secondly, that under the scientific system of measurement now adopted the area brought out for a field is itself considerably in excess of what the area of the same field would be if obtained by measurement according to the native system. Taking these facts into consideration, it must, I think, be admitted that the question of dealing with lands claimed as excess is one which ought not to be disposed of by executive order, but demands careful judicial enquiry, in which the whole facts and history of the holding must be examined and the landlord must be content to discharge the burden of proof which the law has laid upon him. And if this be the conclusion justified by the equities of the case to which I have referred, is it not strengthened by the consideration that, according to the concurrent testimony of enquirers into the subject, the Bihar tenant's rent, even 10 years ago, was in many places a rack-rent? Since then population has increased, the competition for land has grown more intense, and as a natural consequence the agrarian situation has become more precarious. All these considerations point to the desirability of careful judicial examination before rents are fixed, and to the administrative necessity of giving the province rest and security by such a record of rights as the Government has now undertaken to effect.

The last statement which I have to notice in the second paragraph of the memorial is "that a further inducement was also held out to Your Memorialists that on the completion of the survey the Government would give to the zamindars by a summary procedure increased facilities for the collection of their rents." It is no doubt the case that in a speech delivered in the Governor-General's Council on the 25th March 1892, on the amendment of the Bengal Court of Wards Act, Sir Charles Elliott spoke as follows:—

"There is a provision now in the Tenancy Act, under which rent suits below Rs. 50 may be tried summarily like a Small Cause Court suit. But this provision has not been put into force hitherto, because rent suits generally have turned, not merely on the question whether the rent had been paid or not,

but on the question how much the rent really is, or whether rent is due at all. Whenever disputes of the sort have been cleared away, it seems probable that the provision referred to may be utilized, or even that some simpler procedure may be invented."

The Lieutenant-Governor then intended that the subject should be taken in hand at the earliest opportunity, and trusted that he "might be able to introduce a Bill of this kind." It was not, however, until the 17th September 1892 that Sir Charles Elliott found it possible to take any further steps in the matter, and in the official letter then written, great stress is laid on the fact that a summary procedure is only possible when "a regular survey and record of rights have been effected under the Tenancy Act, and the maintenance of the record is duly provided for." Gentlemen, I invite your special attention to these words: "when \* \* \* the maintenance of the record is duly provided for." I am not aware that much progress has been made towards inventing the simpler procedure referred to in general terms by Sir Charles Elliott. It may be that that problem "passes the wit of man." In any case, however, I may remind you here that it was this very demand for a summary procedure for the recovery of rent which started into active life the discussion which ended in the passing of the Bengal Tenancy Act. For seven years that demand was examined from every conceivable point of view by the keenest intellects, not of Bengal alone, but of all India. Their answer to that demand was the Act as you have it now. I repeat, gentlemen, what Sir Charles Elliott has already practically said, that the only road to the summary recovery of arrears of rent lies through a regular survey and record of rights under the Tenancy Act and adequate maintenance of the record up to date.

Two enquiries are made in your memorial which call for a definite answer. You ask to be informed as to the intentions of the Bengal Government regarding the maintenance of the record of rights and the employment of the patwari on the survey.

Both of these points were, I think, fully dealt with in my speech in Darbar, and you can, I think, no longer have any doubt as to what is proposed. My intention is—and in this I have the support of the Governor General in Council—to maintain the record. If you reject the patwari, and we can agree on an efficient plan of maintenance independently of Regulation XII of 1817, I shall propose to the Government of India to abolish that Regulation and release the patwari from Governmental control. If we cannot come to an agreement, I must only do what I can to protect you against yourselves and to secure the due maintenance of the record in the best interests of all concerned.

In regard to the right of the Government to employ patwaris on survey work, to which you refer in paragraphs 5 and 6 of the memorial, I am advised by the Law Officers of the Crown that beyond any doubt the Government has that power. I am aware that a contrary opinion has been given by eminent counsel; but I also know that the grounds on which the Government is proceeding, and on which the opinion of the Law Officers is based, were not placed before those gentlemen, who approached the question therefore at a disadvantage. I have no objection whatever to your seeing the entire Government case on this point. My wish is that our objects and the grounds of our action in this whole matter should be displayed and made public as completely as possible. The strength of the Government case lies in its being widely known and fully understood.

There remain only two matters which it seems necessary to notice at length. The first matter is your reference in paragraph 5 of the memorial to the circular of the Director of Surveys of 5th June 1893. That circular does not in some respects correctly represent my intention: and portions of it were cancelled shortly after it was issued. But reading the circular carefully—I hold it now in my hand—I cannot find that it contains the statement you allege, enjoining the retention of the patwaris as Government servants for the purpose of maintaining the record of rights. As a matter of fact, my plans for the maintenance of the record had not been matured when the circular was issued, and Colonel Sandeman, if he made such a statement, would have known my intention better than at the time I did myself.

The second matter I have to notice is your statement that the Tenancy Act makes no provision for maintaining the record of rights. On this point let me read you the following extract from a letter, dated 20th November 1884,

addressed by the Government of India to the Government of Bengal:—"It is hardly necessary to remark that the value of the survey and the record of rights will be incommensurate with the cost unless an efficient staff of patwaris and supervisors is organized. \* \* \* If it be decided to

commence operations in 1885 or 1886—and on this point the Government of India will expect to be advised hereafter by the Government of Bengal—His Excellency the Governor-General in Council trusts that no effort will be spared to obtain at an early date the requisite legal powers to organize the patwari staff, and that the work of organization will be vigorously prosecuted."

It was in pursuance of those orders that the Bengal Government actively took up the question of patwari reorganization. But the reorganization of the patwari staff in Bihar was from the beginning part and parcel of the scheme for amending the Rent law: and it always was intended that legislation on the patwari question should be undertaken as supplementary to legislation on the substantive Rent law. It is unnecessary for me to explain here why this intention has hitherto remained in abeyance: it will suffice to say that, until it is fulfilled, these provisions of the Tenancy Act, specially intended for the protection of the raiyats of Bihar, will remain ineffectual. In these circumstances, gentlemen, you will not be surprised, nor I trust angry with me, if I am doubtful of your title to speak on this matter in the name of the raiyats of Bihar, or to say that they are opposed to the survey and settlement. I am informed that they are as a matter of fact, whenever they understand the matter, in favour of a settlement fairly conducted. I have even seen it stated in the public newspapers by Sir William Hudson himself that they were willing to pay as much as one rupee per acre for it, while under arrangements they will, I hope, not have to pay a quarter of that amount.

Gentlemen, we are now face to face with the essential facts which underlie the whole burning question of the relation of landlord and tenants in Bihar. Far more important to the raiyats is this question of the Record of Rights even than the recent change in the organic written law; for the written law, among an ignorant, struggling people, remains a dead letter—witness Act X of 1859—unless executive action steps in to do for the people that which they cannot do for themselves. This is the justification of Chapter X of the Tenancy Act, as it is of protective agrarian legislation wherever it has been undertaken. Gentlemen, I do entreat you to regard the question in a considerate and conciliatory spirit. I am here to discuss every point with you in a friendly and amicable way. I will do everything I can do within reason and the law to meet your wishes: and if only you will meet me in a similar spirit, as I feel confident you will, then I do think that between us we shall be able during the next few days to arrive at a reasonable understanding and a workable agreement on the matters that have to be settled between us. Gentlemen, I conclude by thanking you for giving me this opportunity of speaking my mind to you on these most important matters openly and frankly.

#### ENCLOSURE II A.

*Opinion of the HON'BLE SIR G. H. P. EVANS, K.C.I.E., on the position and duties of Patwaris. [Referred to in foot note to paragraph 57 of the Minute.]*

I HAVE had laid before me papers bearing on the position and duties of patwaris, which I had not before seen and which throw much light on the subject. They consist of (1) correspondence between the Board and the Government of India and the Directors of the East India Company ranging from 1811 to 1824, and the reports of Collectors during that period; (2) of the correspondence between the Local Government, the Board and various Collectors in 1886; (3) further information collected in 1893; and I have discussed with Mr. Finucane the nature of the duties the patwaris are now required to perform in respect of the present survey of Bihar under the Tenancy Act. Upon these materials, it appears that the reform of the office of patwari sought to be effected by Regulation XII of 1817 was connected with the restoration of the office of kanungo, and was to a great extent intended to provide the Government with such authentic information as to the area cultivated by each raiyat and the rent payable by him therefor in money and in kind and the amounts actually paid as should enable the Government to protect the raiyats from oppression so far as practicable; and generally to provide the fullest information as to the area and tenure and nature of the lands in each village.



With this view the Board in 1819 prescribed a form of account by which the patwaris were to record the length, breadth, and area of each plot held by each raiyat in the villages and the rent payable for his holding, as well as many other particulars, and were held liable for the accuracy of this return. strenuous efforts were made to have complete returns made by the patwaris and checked by the kanungos and kept as records. These efforts were continued with more or less, but generally with very indifferent, success till 1824 or 1825, when the correspondence ceases.

The correspondence of 1880 shows that, though the system had apparently failed entirely in Bengal, it was still alive in Bihar, and that the returns prescribed by the Board of Revenue in 1876 (which are the same as now found in the Revenue Manual) were much the same as those originally prescribed in 1819, but that the registration of patwaris and the insistence on their returns being filed in the Collector's office had fallen very generally into disuse. The conclusion came to was that the patwaris should be registered and that the rules compelling them to keep the accounts should remain in force, but that the patwaris had so far become servants and sent collections of the zamindars, and were so ignorant and corrupt that the accounts prepared by them were worthless and misleading, and that it was not worth while to attempt to enforce the duty of filing them yearly in the Collector's office, and that things should be left as they were for the present.

In the course of this correspondence it was reported by several Collectors in Bihar that measuring land was one of the duties then performed by these patwaris, but the Collector of Saran did not mention this as one of their existing functions. It appears, however, from the report of the Settlement Officer in 1893, that the patwaris from Saran and Gaya who appeared before him stated that they had been in the habit of measuring land roughly with a luggi, but that they had never made maps.

On the whole history of the matter it appears that patwaris were compellable to measure the plots of the raiyats under order of the Board existing since 1819, and that to keep up the register shewing the length, breadth, and area of each plot was one of their duties, though it has been little, if at all, enforced during the last 60 years by Government, and that this duty was imposed mainly to supply information of what land the raiyats paid rent for, and how much they paid for each bigha.

Their registers and accounts were apparently intended in 1817 to form the basis for some kind of record of rights as to all the land in the village. That the original object has lamentably failed is clear, but the patwaris remain legally liable to perform their original duties, though after so long a disuse and under present circumstances there are great practical difficulties in carrying out the original scheme through their agency.

I think it is made out that patwaris can be called on to make and file measurement khasras of the lands of the raiyats, and for the purpose to measure the lands in such manner as patwaris have been accustomed to do; that is, in the old native style with a luggi. I think also that if the Government desire some improved but still simple means of measurement to be substituted and adopted by them (not requiring scientific instruments or the education of a professional surveyor), they could in course of time effect such improvement in the accuracy of the measurements by the powers they have as to the appointment of patwaris and by encouraging them to adopt the new method.

I also think that the duties prescribed for them as to recording all mutations of tenants, &c., would enable the Government to make use of them for the purpose of keeping up the record of rights when made, though it does not appear that they could safely be entrusted with such duties or any duties out of which they could make money unless there were an efficient check upon them.

But though the duties of patwaris appear to me to be as above stated—and it is evident that the Government has much greater rights to demand services from them in the way of measurement and otherwise than it has been in the habit of exacting—yet there are great difficulties in the way of any attempt at utilising the existing patwaris in the manner proposed for the present survey of Bihar under the Tenancy Act, viz.—

(A) A fresh qualification for the office has to be introduced suddenly. For though, as explained by Mr. Finucane, the work required from them is comparatively simple, and does not involve their being able to make scientific maps

as I had previously thought, yet it admittedly involves the acquisition of knowledge which neither they nor any of their predecessors have ever possessed. It is not, I consider, possible to force an existing body of officials, who are only subject to dismissal for neglect of duty or other just cause, to come away from their villages and attend classes for the acquisition of this new knowledge on pain of dismissal; nor is it possible to dismiss them if, having attended, they do not become proficient in the new art.

(B) This survey is an exceptional thing ordered once for all under the Tenancy Act of 1885, and if the existing body of patwaris, though able to and compellable to, undertake measurements of raiyats' lands by the old method, are unfit to perform this special and unusual task which is demanded of them on this occasion, and which may never recur if the work is properly done and means taken for its being kept up, it is very difficult to hold that such a task is legally demandable from officials who admittedly are and always were unable to perform it. From the report it appears that none can perform it without a course of instruction, and that many, if not most, are incapable of acquiring sufficient proficiency to be able to fulfil the requirements.

(C) It is noteworthy that they have hitherto had nothing to do with maps, though possibly, considering the very extended meaning given by the Board ever since 1819 to the words "registers" and "accounts," it might not be *ultra vires* for the Board to prescribe some simple form of map which it was within their power to prepare.

If the old patwaris are to be dismissed, it must be for some other reason than the non-acquisition of the knowledge necessary for the survey. Difficulties will arise as regards fresh appointments, the nomination being in the first instance with the zamindar, and the Government power of appointment arises only on failure to nominate on nomination of an unfit person.

Assuming the zamindar to be hostile and to set up the patwaris to fight the point and provide them with funds, difficult questions will have to be decided, and it will be possible to question the action of the Board in the civil courts, unless the Government are prepared to work the change gradually. This would involve immense delay in carrying out the survey.

The zamindars will have a grievance from the fact that the patwari is now in many estates the only rent collector, and although they may have no legal right to insist on his collecting rents, unless it was a customary duty in 1816 of which I find no evidence, yet as his whole time will be taken up first in learning and then in doing survey work for a considerable period, there will be a great outcry at the sudden loss of what by long use the zamindars have come to consider as a right to his services.

My final conclusions are that the Government have a right to the services of the patwaris for the purpose of ascertaining and recording facts connected with the villages such as would be recorded in the record of rights, and possibly such as would be required for census purposes, and that this right, though fallen into practical disuse, still exists legally. That the enforcement of the right by Government will involve a great change in the present relations of patwaris and zamindars. *That the Government is entitled, if they think fit, to employ patwaris to keep up the record of rights. That they are entitled to require the patwaris to give assistance and information in framing it and in ascertaining the identity and measuring the area of the various plots of land in the village to the extent of their ability, and in other matters.*

That the proposed scheme for their immediate utilization for the survey now in progress is not practicable, and in any event bristles with difficulties legal and practical, which it is not easy to see our way through, unless the zamindars agree to it.

That if time were no object it might be possible in the course of years to secure a set of patwaris who might be so used. But that it is most probable that the experience of the past would be repeated, and that the patwari serving two masters would mainly serve the one who paid him and who was nearest to him and mainly affected his daily life.

G. H. P. EVANS.

The 30th July 1893.

## ENCLOSURE III.

- (1) *Letter No. 8264., dated the 14th August 1893, from the Hon'ble C C STEVENS, Senior Member of the Board of Revenue, to the Secretary to the Government of Bengal, in the Revenue Department, to which are appended the Minutes of the Proceedings of two Conferences held at Muzaffarpur on the 3rd and 5th August 1893, and a letter, dated the 7th August 1893, from BABU RAM DHARI SAHAI, Honorary Secretary, Tirhut Landholders' Association, to the Secretary to the Board of Revenue, Lower Provinces.*
- (2) *Government order, dated the 15th August 1893, addressed to the Board of Revenue.*

[These documents are referred to in paragraph 5 of the Minute.]

(1)

I HAVE the honour to make the following report on the Conferences which, under the instructions of the Lieutenant-Governor, I held at Muzaffarpur on the 3rd and 5th instant with the representatives of the zamindars and indigo planters of North Bihar, on the subject of the Bihar Survey and of the future maintenance of the Record of Rights.

2. Before these Conferences I informally met the Government officers employed in the tracts immediately concerned. The object of this meeting was merely to obtain such general information relating to the facts and to the wishes of those affected by the survey as the local officers could give and was not already known. No proceedings were recorded.

3. I submit full reports of the Conferences, but it is desirable that I should lay before Government a brief summary of what was said and done, and should state the points which appeared to me to have been made clear.

4. I was assisted by the Hon'ble H. H. Risley, C.I.E., Secretary to Government in the Revenue Department, and by Mr. M. Finucane, Officiating Secretary to the Board of Revenue and permanent Director of Land Records and Agriculture, while Mr. Lyon, Settlement Officer of Muzaffarpur, acted as Secretary. To all these gentlemen I am much indebted for their valuable help. The Commissioner of Patna, the Collectors of Muzaffarpur and Champaran, the Officiating Director of Land Records and the Director of Survey, and the Settlement Officer of Champaran were also present.

5. On the other side, the Maharaja of Darbhanga with his Manager, Mr. Bell, the Maharaja's brother, Raja Rameshyar Singh, Mr. Gibbon, the Manager of the Bettiah estate, the Secretaries to the Bihar and Tirhut Landholders' Associations, Sir W. B. Hudson, K.C.M.G., President, and Mr. Macnaghten, Secretary of the Bihar Indigo Planters' Associations, together with several other influential European and Native gentlemen, represented the zamindars and indigo planters. I endeavoured to find some persons who might represent the raiyats; and it is a significant fact, in considering the conditions of North Bihar, that no adequate representation of this class could be obtained, and consequently the attempt had to be abandoned. There probably is not a single raiyat in Bihar of intelligence and education sufficient to enable him to take part in such a Conference; and the raiyats' feeling on the subject can only be ascertained by personal enquiries in their villages.

6. I opened the proceedings by saying that the intentions of Government must be understood to be unalterable on the following points, which were not therefore open to discussion:—

- (1) The survey is to be made and record of survey and rights is to be maintained up to date.
- (2) The record is to be a public document, the accuracy of which Government must guarantee, so far as may be practicable.
- 3) Since the Government is thus responsible, it must not be fettered in its discretion as to the period at which corrections of the record should be made.
- (4) The work must be done by an agency under the complete control of Government, and independent of any interested party.

It was then explained that in order to attain these objects, the Government was anxious to know the views and to study the interests of these affected.

7. I then proceeded to sketch the two systems which had suggested themselves to Government, viz. (1) the patwari scheme, under which the unit would be the village, and the survey would be made, and the record kept up, by the patwari; (2) what might be termed the kanungo scheme, under which the survey would be made by amins, and the record for a circle of villages be maintained by an officer of higher qualifications and on higher pay. It was made clear that the former of these two plans would require legislation; the patwari would be a Government servant, appointed, controlled and paid by Government, and the cesses now collected from the raiyats for the payment of patwaris, under whatever name, must be taken in a legal and probably altered shape. The kanungo scheme was then sketched in outline following the note which had been, under the Lieutenant-Governor's orders, previously forwarded to the Indigo Planters and Landholders' Association.

8. A discussion followed, for which reference may be made to the detailed Minutes of the Proceedings appended to this report. It was apparent that the unofficial gentlemen present were hostile to any maintenance of the record at all. They pressed for information on many points of detail involved in either of the schemes laid before them, and to meet their wishes I distributed copies of the first draft of a Bill which had been prepared, embodying the Lieutenant-Governor's scheme of kanungos. This Bill, although prepared under the orders of the Lieutenant-Governor, had not yet been submitted to His Honour, and consequently he had had no opportunity of expressing his approval or disapproval of the draft. But since it was in general accord with his views, and there was an evident desire on the part of the unofficial gentlemen attending the Conference to be informed of the methods by which practical difficulties might be overcome, it was thought less inconvenient to produce the Bill somewhat prematurely than to reserve it till instructions could be taken.

9. It was not to be expected that any opinion should forthwith be given by the Conference; and it would have been manifestly unfair to press for criticisms without giving time for consideration. The Conference was then adjourned till the 5th, after the difference between the patwari and kanungo schemes had been again explained. No original plan was brought forward by the unofficial gentlemen present, but it was suggested that, instead of attempting to maintain a current revision of records, there should be a decennial revision. Since this suggestion was inconsistent with the principle that Government, being responsible for the accuracy of the record, cannot be fettered as to the periods of revision, I was unable to permit it to be discussed as a proposal, though I directed that it should be recorded as an opinion.

10. On the 5th instant the Conference re-assembled. The explanation given by Mr. Finucane of a remark made by him at the previous sitting led to a short discussion regarding the sanction proposed in the Bill for enforcing the communication of information as to transfers. The general feeling among the unofficial members was that the provision was open to objection, as giving the sub-kanungo a lever which he might use for purposes of oppression. It was obviously impossible to promise that no power of punishment for passive obstruction should be retained in the Bill, but it was explained that the details were open for consideration, and that any reasonable modifications which could be suggested were likely to be adopted.

11. I then read an extract from a letter written by Mr. Gibbon on the 24th October 1878, to the President of the Bihar Rent Committee. The advice given in this letter, as I pointed out, depended on the following principles:—

- (1) It is right that Government should have at its disposal a local agency of contemporaneous record.
- (2) That agency should have no connection with the collection of rents, but should be entirely at the service of Government, and should be nominated and paid by Government officers.
- (3) It is reasonable that the zamindars should pay at least a share of the necessary expenditure direct into the Government Treasury.
- (4) It is possible to secure, consistently with due economy, the services of efficient men.

(5) The areas to be dealt with by these record-keepers should be re-adjusted, and the district divided into convenient and fairly uniform circles considerably larger than those of the existing patwaris usually are.

(6) The present staff of patwaris should be placed at the disposal of the zamindars, to keep or to dispense with at their option.

These considerations, I pointed out, are exactly those on which the Bill under discussion is founded.

12. I regretted that Mr. Gibbon was not present, but I had mentioned to him personally my desire to bring his letter forward, and he was aware that I attached much importance to it. I have abstained from reading it on the first day, partly because I had feared that it might lead to irrelevant discussions, and especially because it seemed undesirable to take Mr. Gibbon at a disadvantage or to forestall and hamper him in anything which he might wish to say. After I had read the letter, Mr. Macnaghten, by Mr. Gibbon's authority, said that circumstances had changed since 1878, and that Mr. Gibbon claimed the right to change his opinions; Sir William Hudson further attributed Mr. Gibbon's change of opinions to the state of the law regarding the transfer of raiyats' holdings.

13. My object in reading the letter and laying stress on it was not to deny Mr. Gibbon the right to change his views, but to show that the scheme now brought forward was in precise accordance with that which had commended itself to one of the most valued unofficial advisers of Government, who even 15 years ago had had large practical experience. To me, I may remark in passing, it does not appear that the reasons given for a change from those views are adequate. The law as to transfers of occupancy rights has not been changed. If such transfers have become more numerous, surely the necessity for recording them has increased. And if the country is being surveyed and rights ascertained and recorded, it should be easier and less expensive to maintain the record. On the other hand, the interference of Government with the zamindars will be less under the Lieutenant-Governor's scheme than under the scheme which Mr. Gibbon proposed, since it is not now intended to register collections of rents.

14. The members of the Conference were next informed that His Honour the Lieutenant-Governor had now seen the Bill which was produced at the former meeting, and had accepted it as a provisional basis of legislation, with certain modifications which were read and explained, and will be found reproduced in the minutes of the Conference. Under the authority which had been given to me, I announced that Sir Antony MacDonnell would, if desired, be happy to come to the meeting and discuss any suggested amendments of the Bill. It was, however, considered unnecessary to trouble His Honour to do this.

15. I then asked whether the gentlemen present could now give me their opinion as to which of the schemes was to be preferred. The reply was given that, though those present could not bind absent interested persons, they were themselves of opinion that the kanungo scheme was the lesser of the two evils which were presented to them. This expression of preference, taken with the absence of any counter scheme of maintenance from the zamindars, was all that the Lieutenant-Governor asked for in his speech at the Bankipore Darbar; and under these circumstances I said that I was prepared, under the Lieutenant-Governor's instructions, to stop all further action in the direction of the registration and training of patwaris, and pointed out that the entire abolition of the patwari system is involved in the kanungo scheme. This announcement appeared to give satisfaction.

16. The discussion then fell upon the question of the area to be dealt with by the kanungos. It was desired that this should be as large as possible, that a superior class of men should be employed, and that the corrections should not be made annually. The landholders were assured that these expressions of opinion would have full weight given to them, and it was understood that Government would extend the area to the maximum consistent with efficient work. Speaking only for myself, I said that I could not advise that so large an area should be at first adopted as to produce any risk of failure. The work must first be made safe, and the details might afterwards be modified by the

light of experience. I declined to promise that the corrections should not be made annually, since it is a fundamental part of the scheme that this must be left to the discretion of Government.

17. The Maharaja of Darbhanga then asked that the Lieutenant-Governor's notes might be regarded as part of the proceedings, and that the zamindars might be favoured with as full an exposition of the views of Government as could conveniently be given. This was assented to.

18. It was once more pointed out that, subject to the four principles stated in paragraph 6 above, which are insisted on by Government as fundamental, all details, however important, are open to discussion, and that His Honour the Lieutenant-Governor is most anxious to receive all the assistance which the practical experience of those interested can afford him, in order to make the working of the proposed arrangements as little inconvenient as possible. In breaking up the meeting, I then, on behalf of Government, thanked the gentlemen present for their attendance, and acknowledged the courtesy which had lightened my own labour.

19. As the Conference was rising, a further conversation took place between some of the members and Mr. Finucane on the subject of the provision by the zamindars of coolies for the survey, the Lieutenant-Governor having, it was understood, expressed the hope to several zamindars, at his interviews with them, that help in this direction might be given so as to lighten the cost of survey. The offers then made were subsequently confirmed by an official letter from the Secretary to the Tirhut Landholders' Association, a copy of which is appended to this letter.

20. The general results of the Conference appear to me to be these :—

- (1) It was made perfectly clear that the Government would insist on the maintenance of the record of rights up to date as necessary to secure permanent benefit from the original operations. It was made clear that the record should be maintained by a Government agency independent of all parties, and that a revision at the end of five or ten years was an arrangement which the Government could not accept while remaining responsible for the accuracy of the record as representing existing facts.
- (2) It was evident that, though the interests of the zamindars and the indigo planters are not uniform, and perhaps in some instances conflict, both these classes object to the annual maintenance up to date of the record of rights. They would rather that the records should not be maintained at all. Next to this they would prefer a revision after long periods—say of five or of ten years.
- (3) Of the two schemes suggested to them, they prefer that of the kanungo dealing with larger areas to that of patwaris dealing with villages.
- (4) The announcement of this preference enabled us to make the immediate concession, that the existing patwaris shall not be made use of for purposes of the survey, and shall remain free for the performance of the zamindari duties. The concession was received with satisfaction by zamindars and planters alike.
- (5) We were able to show that the adoption of the kanungo scheme would involve the repeal of the Patwari Regulation XII of 1817 (a measure which would probably be satisfactory to zamindar and planter); provided that an efficient mode of maintaining the record of rights can be brought into operation.
- (6) I hope that it was made quite clear that the Government, while adhering to the principles laid down, will consider, and adopt, if possible, all reasonable proposals intended to meet the wishes, or guard the interests, of those affected.

21. The main objections put forward to the introduction of any scheme were (1) the interference, (2) the cost, and (3) the probable dishonesty and exactions of the establishments. As the kanungo will have nothing to do with the collection of rent, or recording such collection, or with the letting of land, but will only deal with the maintenance of the record as completed by the survey, whereby all parties will have a standard of right to which to appeal; and as,



besides, he will be closely supervised by superior officers, the interference will be reduced to a minimum, and it will be certainly less than that authorized by the existing patwari regulations. The landlord's share of the cost, though to large zamindars it may be considerable simply because they possess large property, will be small to other classes, and every effort will be made to avoid needless expenditure. Among other things it is under consideration whether the fees and fines under the Land Registration Act VII (B.C.) of 1876 may not be credited to a District Fund for the maintenance of these land records. And after all, though that part of the expense which will not be recovered by registration fees, &c., will have to be met by a cess, the amount so raised will be much less than that now levied with doubtful legality for or by the patwaris. At the present time a zamindar has a patwari in every village, it is understood. When the record of rights has been prepared and is maintained, the duties of the patwaris will be diminished; and it will probably be possible for a zamindar to do with fewer men than he now employs. Sir William Hudson, who has an intimate knowledge of the needs and condition of the raiyats, has publicly stated his opinion that they will gladly pay a rupee an acre for copies of the original record relating to their holdings. If this be so, they are not likely to object to pay their share at the rate of half an anna or so per acre per annum for its maintenance. It is too much to hope that there will be no instances of dishonesty or exactions; but the landholders of North Bihar possess great power and influence, and are in no way deficient in energy and courage; so that we may confidently look to them to report all instances which may come to their knowledge of malpractices directed to the injury of their raiyats and themselves. I cannot but hope that on further examination the force of these objections will prove to be less than it at present appears to them.

*Proceedings of a Conference held at Muzaffarpur on August 3rd, 1893.*

PRESENT.

The Hon'ble C. C. Stevens, Member of the Board of Revenue, Lower Provinces (in the Chair).	W. C. Macpherson, Esq., Officiating Director of Land Records and Agriculture, Bengal.
The Maharaja Bahadur of Darbhanga, K.C.I.E.	E. Macnaghten, Esq., Secretary, Bihar Indigo Planters' Association.
Raja Rameswar Singh Bahadur	Babu Guru Prasad Sen, Secretary, Bihar Landholders' Association.
A. Forbes, Esq., Commissioner of the Patna Division	Babu Ram Dhari Sahai, Secretary, Tirhut Landholders' Association.
The Hon'ble H. H. Rusley, C.I.E., Secretary to the Government of Bengal in the Revenue Department.	Rudston Brown, Esq., Indigo Planter.
Sir W. B. Hudson, K.C.I.E., President, Bihar Indigo Planters' Association	R. Macne, Esq., Indigo Planter.
Colonel Sandeman, Director of Bengal Surveys.	E. G. Calvin, Esq., Settlement Officer, Champaran.
M. Finucane, Esq., Officiating Secretary to the Board of Revenue	Babu Parneswar Narain Mahtha.
T. Gibbon, Esq., C.I.E., Manager, Bettiah Raj.	„ Mungul Parshad
Henry Bell, Esq., Manager, Darbhanga Raj.	„ Rameswar Narain Mahtha.
L. Hare, Esq., Collector of Muzaffarpur.	„ Jamuna Pershad Sukul.
W. D. Blyth, Esq., Collector of Champaran.	„ Sureswar Narain Mahtha
	P. C. Lyon, Esq., Settlement Officer, Muzaffarpur (Secretary).

MR. STEVENS, in opening the Conference, said:—

I have been directed by the Lieutenant-Governor to meet you for the discussion of the best means of making and maintaining the survey and record of rights in North Bihar.

I may say frankly that it has come to my notice that two nearly opposite doubts have been expressed regarding the objects and procedure of Government in this matter. Some appear to think that the Lieutenant-Governor has come down with his officers, bringing schemes cut and dried, and determined to adopt them, merely asking for the assent of those interested. Others think that there is nothing definite before them, and that they run the risk of being required to commit themselves prematurely to an opinion on propositions of a vague and shadowy nature. Neither of these apprehensions is well founded.

The points which may be taken at the outset as settled finally and definitely are (1) that the record of survey and of rights is to be maintained; (2) it is to be a public document, the authenticity of which the Government must guarantee, so far as this is practicable; (3) and since the Government is thus responsible, it must not be in any way fettered in its discretion as to the period at which correction of the record should be made; (4) and, lastly, this is to be done by an agency under the complete control of Government and independent of any interested party.

As to the best method of attaining these objects, His Honour the Lieutenant-Governor is anxious to know the views and to study the interests of those who will be affected. The key to his position is to be found in the last paragraph of his reply to the landholders' address:—"Gentlemen," (he said) "I do entreat you to regard the question in a considerate and conciliatory spirit. I am here to discuss every point with you in a friendly and amicable way. I will do everything I can do within reason and the law to meet your wishes; and if only you will meet me in a similar spirit, as I feel confident you will, then I do think that between us we shall be able during the next few days to arrive at a reasonable understanding and a workable agreement on the matters that have to be settled between us." These are not the words of a Government which is prepared to neglect or refuse advice.

Two plans have been under consideration, viz., (1) the use of the patwaris registered under Regulation XII of 1817 to make the survey and to maintain the record, and (2) the employment of amins for the survey and of a special agency for maintenance. As to the former, it may serve to clear away some misapprehensions if I say at once that the retention of the present patwari in his existing relations is not proposed. If retained at all, he would be made a Government servant, subject only to the orders of the officers of Government, and liable to transfer or removal by them. The extent of the area assigned to him would be reconsidered and re-adjusted. The cesses levied for the patwaris' remuneration, under whatever name, must be taken for him still, though in a legal and probably altered shape. It is recognized that Regulation XII of 1817 must be revised so as to secure the above objects, though the Government is advised that the Regulation as it stands gives it a right to the services of the patwari, for the purposes of ascertaining and of recording facts connected with the villages, such as would be recorded in the record of rights, and that this right (though fallen into practical disuse) still exists legally. The Government is entitled to require the patwaris to give assistance and information in framing the record and in ascertaining the identity, and measuring the area, of the various plots of land in the village, to the extent of their ability. The exercise of these powers under the Regulation as it stands, especially under the unfavourable conditions which have gradually grown up, would, however, be involved in difficulty; and the dual control which it recognizes would be adverse to efficiency, even were there no other objections. If, therefore, the patwari agency is to be employed, it must be under considerably altered conditions.

The other scheme which has been suggested is that there shall be an unit of area. The unit of area is the circle of villages—the circle will contain perhaps 20 villages—instead of the single village. The circle officer will be, not the patwari, but a more highly qualified and better paid Government official, and the information to be recorded will be reduced to the minimum necessary for supplying adequate information as to the actual occupation of each field, its area and soil quality, the status of the occupier, conditions of occupation, and the rent and rent-rate payable. The scheme leaves the question of rent payment to be settled between the tenant and landlord without any intervention on the part of the executive Government. There will be only one statistical statement maintained, the "jinswar," which is not directly concerned with the relations of landlord and tenant, and which may be said to have more of an administrative than a fiscal aspect. The following is an extract from the Lieutenant-Governor's note on this scheme:—

"The importance of careful supervision in such a scheme as that under notice cannot be over-rated. I would therefore group the sub-kanungos' circles into circuits (of, say, 20 circles), to be placed under a kanungo on Rs. 50 per month, whom I would include in the subordinate provincial service. The entire land record staff of the district I would place under a Sub-Deputy Collector. The following estimate of total cost for an average Bihar district is therefore tentatively proposed:—

				Rs.
120 Sub-kanungos	...	...	...	3,000
120 Chainmen muharrirs...	...	...	...	1,200
6 Kanungos	...	...	...	300
1 Sub-Deputy Collector	...	...	...	175
				<hr/> 4,675
Pensionary charges at one-fifth	...	...	...	935
				<hr/> 5,610
Per mensem	...	...	...	5,610
				<hr/> 67,320
Per annum	...	...	...	67,320
Tour expenses	...	...	...	2 500
Stationery and survey appliances	...	...	...	1,180
				<hr/> 71,000
Total	...	...	...	71,000

"As establishments have a tendency to grow, and as it might be found desirable to employ senior officers as District Land Records Deputy Collectors, this estimate might in time be exceeded. But it ought, I think, never to go beyond Rs. 75,000 per annum." I may, to prevent all risk of misunderstanding, repeat in other words what I have already



said. The discussion must postulate the maintenance of the record. This is not an open question. The record will be a public document, the authenticity of which the Government must guarantee so far as this is practicable. The Government must therefore not be in any way fettered as to its discretion to have annual corrections of the record, if it so decides.

The agency by which the record is to be maintained may be an agency dealing with (a) individual villages, or (b) circles of villages. If the former be decided on, the unit of agency would be the patwari. If the latter be decided on, the unit of agency would be the circle kanungo. In either case, the officer would be a whole-time Government official entirely independent of any other control.

If the patwari is decided on, the control exercised through him by Government will be close and continuous; and he may be required to furnish any information or statistics required by Government in regard to his village for administrative, judicial or other purposes. The patwari will not be at the disposal or control of the zamindar for any purpose whatever. He will have nothing to do with the collection of rent. But all arrangements connected with the land or the tenants must be brought on his records.

His pay will be levied from the zamindar and raiyats. It is believed that no more will be needed than the raiyats now pay for this purpose in the shape of *neg* where the *neg* has not been already consolidated with the rent or than what they pay for the purpose, though disguised as an addition to the rent, where the *neg* has been incorporated with the rent.

The landlords must make their own arrangements for rent collection.

If the circle kanungo be decided on, the information to be brought on record, and the enquiries to be made into village soon may from time to time, will of course be less. And in this case the pay to be given to the officer will be higher, and generally the status of the officer will be better. The control to be exercised over the circle kanungo will be constant, and such as the Government deems adequate for guaranteeing the accuracy of the records.

When the agency is settled, the character of the maintenance will have to be discussed. The principle to be insisted on here is that we shall make the map the basis, and that we shall work up from the occupancy of every field to the landlord.

In conclusion, Gentlemen, I would note that it is necessary for us to decide first by what agency the record is to be maintained, before we discuss what agency we shall employ to make it.

Mr. Bell said he was not quite sure that he understood the proposal as regards patwaris. If it was intended that they should cease to do any work for the zamindar, how were they to be paid?

Mr. Rishy said that the method that would very likely be adopted was the addition of 1/2 anna to the road cess now levied, calculated on the present road cess returns. Where the patwari *neg* had not been consolidated with the rent, a share, probably a half, would perhaps be levied from the raiyats.

Mr. Bell said that, as far as he knew, no patwari *neg* was levied.

Mr. Gibbon said that Government appeared to be under a misapprehension as to the nature of the patwari *neg*. It seemed to be assumed that the zamindar collected this cess from the raiyats and paid the patwari from the proceeds. This was not the case. The patwari was the person who levied the cess, which was called by different names in different villages, and he collected the cess himself. In some villages he had recently taken to entering the amount of this cess as a footnote to the jamabandi, but the zamindar never fingered it. He believed that, whether Government took away collections from the patwari or not, he would continue to collect his cess from the raiyat.

Mr. Finucane said that Mr. Gibbon's account of the cess might be presumed to be correct in reference to Champaran, but that this would make no difference to the scheme.

Mr. Bell, on the other hand, considered that the point was a most important one. Although the zamindars were to get no benefit from the patwari, they were to have to pay for him. He asked why they should have to pay at all when no cess had been consolidated with the rent. They had no concern with mere matters of general administration which should be paid for by the whole community.

Mr. Gibbon protested that Government was still assuming that the raiyats paid the cess to the zamindar.

Mr. Rishy said that the effect of the High Court judgment in the matter of patwari *neg* had been to give them a *tabula rasa*, and any scheme now proposed would have to be a wholly new one.

Mr. Bell said that the arrangements for payment would in fact amount to the imposition of a patwari cess.

Mr. Finucane concurred.

Mr. Bell said that the zamindars were not at present in a position to express any opinion on the schemes. His Honour the Lieutenant-Governor, in writing demi-officially to Sir William Hudson, had promised them a scheme combining the minimum of expense and the minimum of interference. At present they had no knowledge of the details of these schemes. How was the sub-kanungo going to perform his duties? What powers were to be given to him? Was he to be authorized to go into the villages, summon all the raiyats, call for papers and books, &c., &c.? It was most important that such points as these should not be reserved for future determination, but should be decided first. Again, what validity was to be given to these men's corrections? They had no information on these points, and would be glad to see the two schemes drawn up in bill form, and to be given time to consider those bills.

*Mr. Risley* enquired whether they were prepared to consider the schemes at once if they should be put before them in bill form.

*Mr. Bell* could not promise this, and said that the action to be taken now was too important to be hurriedly decided on, as any scheme now adopted would probably be extended later on to the whole of Bihar and to Bengal as well.

*Mr. Risley* then explained further the details of the second, or kanungo, scheme. He claimed that it prescribed the minimum of interference. The irreducible minimum of that interference was the year-by-year correction of entries affecting the possession, area, &c., of the fields in each village. The minimum of expense was secured by making the area to be dealt with by each sub-kanungo as large as possible. In the matter of legal validity, it was necessary to go back to section 119 of the Bengal Tenancy Act, and to consider what the legal validity was which was attached to the original entries made in the record. This was the starting point. The original entries were of two classes, (1) disputed, and (2) undisputed. The High Court had declared that the decisions arrived at in the matter of disputed entries were *res judicata*. The undisputed entries were merely presumed to be correct until the contrary was shown. The corrections would similarly be divided into disputed and undisputed entries. The undisputed corrections to which both parties agreed would stand on the same footing as the original undisputed entries, and the burden of proof that they were incorrect would lie on the person contesting them; whereas, in the case of disputed entries, the statements made by each party would be noted by the sub-kanungo, and a contemporaneous record would thus be secured of the allegations made on each side, *calcat quantum*, admissible in evidence, but not creating any legal presumption whatever.

*Mr. Bell* contended that such entries could not be made evidence, as being *res inter alios acta*.

*Mr. Risley* went on to say that, if it was objected that no legal presumption should attach in any case to an unverified entry made by a sub-kanungo, there was the alternative of having every entry made by him attested by an officer exercising the powers of a Revenue Officer under the Tenancy Act, during an annual revision. The officer in this case would be of equal rank with the Settlement or Assistant Settlement Officer who framed the original record, and it would be proposed to attach a legal presumption of correctness only to those entries which had been verified by him, and to attach no importance to unverified entries. But this development of the scheme would of course somewhat enhance the cost.

*Mr. Bell* said he would be glad to see all these proposals down on paper.

*Sir William Hudson* enquired whether the officials present were pledged to act on lines already laid down for them, or were free to give their own views on the schemes under discussion. He said that he and others with him required assistance in dealing with such administrative schemes, and that there were many non-officials who would give much weight to the opinion of officials who had had practical experience of the difficulties to be met with in the field.

*Mr. Emmance* pointed out that the two schemes were very similar, and that the choice lay merely between the employment of small men in small areas, and the employment of more important and better paid men in larger areas. Did the gentlemen present want large or small areas as units?

*Sir William Hudson* enquired whether Government was prepared to accept and debate any scheme other than those now proposed.

*Mr. Risley* replied in the affirmative, but added that Government would reserve the right to declare that any scheme that might be proposed did not amount to maintenance of the record at all.

*Mr. Stevens* repeated the limitations referred to in his opening speech, on which Government had determined, and said that the Lieutenant-Governor was anxious to receive the views of non-officials.

*Sir William Hudson* said that the non-officials would be glad to have the opinion of officials of practical experience as to whether they believed in the present schemes and anticipated their success.

*Mr. Forbes* remarked that Government had had the benefit of the opinion of such officials before propounding the present schemes.

*Mr. Stevens* added that the present meeting had been called in order that Government might ascertain the facts and hear the opinions of non-official gentlemen interested.

*Mr. Bell* was afraid that time was being wasted, as no real discussion could be entered upon until the details of the scheme had been considered. There being no reporters present, mere verbal statements could not be accepted by the zamindars. *Sir Charles Elliott* had promised the abolition of the patwari.

*Mr. Risley* said that any such promise was conditional on the acceptance of the scheme then under discussion, which had been abandoned.

*Sir William Hudson* concurred.

Copies of a draft Bill, with rules to be made under it, were then distributed to the gentlemen present as being a first sketch of the kanungo scheme.

*Mr. Gibbon* then enquired whether the sub-kanungo would not form some sort of court, how he was to compel the production of evidence, and what he was to do when evidence was persistently withheld from him. He contended that no case had yet been made out for the maintenance of the record at all, but that if it was to be maintained, they must choose whichever scheme appeared to them to be the lesser evil. How could they do this with no details before them? How was evidence to be taken? Would the sub-kanungo have power

to summon him (Mr. Gibbon) and to call upon him to produce papers? If he refused, was he to be fined?

*Mr. Risley* said that all these points would be provided for in a rule-making section, and that all rules drafted under the section would be published for criticism, and that all criticisms would be considered by the executive authorities.

*Mr. Bell* intimated that the zamindars would be more strongly opposed to the Bill if power were to be given to the executive to make rules to carry out its provisions.

*Mr. Finucane* said that all the points raised by Mr. Gibbon would be found to have been answered in the Bill and the rules drafted under it.

*Mr. Gibbon* enquired further whether the courts would accept the entries as evidence without the evidence of the man who made them.

*Mr. Finucane* said that this was provided for, and proceeded to explain that a safeguard had been introduced into the scheme in the provision made for the filing of lists of changes to be made in the record in the sub-kanungo's office. In this way a zamindar would be able to place on record his opinion as to the alterations which the sub-kanungo should make. The Deputy Collector would go into every village and verify every entry in detail.

*Mr. Bell* asked what would happen if no one appeared before the Deputy Collector or sub-kanungo, or if the raiyats and zamindars all agreed to conceal alterations and to announce that there were none to be made.

*Mr. Finucane* said that in such cases no changes would be recorded.

*Mr. Bell* contended that in that case the scheme would not secure the maintenance of the record, and said that in the North-Western Provinces raiyats and zamindars combined to deny the existence of changes in order to get rid of the harassment of the Government agent who was deputed to record them.

*Mr. Risley* and *Mr. Finucane* believed that the parties to changes would not adopt this attitude as soon as they appreciated the advantages that they would obtain by having the corrections made.

*Mr. Finucane* said, in answer to Mr. Gibbon, that all transfers of holdings or portion of holdings that were alleged to exist would be noted, even if they were illegal, but that such entries would in no way operate to legalise them.

*Mr. Gibbon* further enquired whether the record was to be binding as between zamindar and raiyat only, or as between raiyat and raiyat also. Were all mortgages, zar-peshgis, and the like to be recorded, even though they were illegal, without the zamindar's approval.

*Mr. Finucane* said that all these points were to be found in the Bill and the rules under it. All mortgages involving possession would be noted.

*Mr. Bell* enquired what difference there was between the two schemes.

*Mr. Finucane* said that any Bill and rules that might be drafted to give effect to the patwari scheme would be very similar to those in the hands of the gentlemen present. There would be a change in the area of the unit, in the personality of the agent, and in the method of realising the cost of the maintenance of the record. The patwari scheme would be the more expensive. Both schemes were purely tentative. Government would be prepared to accept any better scheme if one can be put forward.

*Mr. Risley* added that the tendency under the patwari scheme would undoubtedly be towards greater interference. The area dealt with by each patwari being small, he would be asked for more elaborate information about it, and would probably be called on for local reports in judicial matters, and for census and other statistical information useful for administrative purposes. It would be impossible to ask for all these statistics from men dealing with the larger areas that were to be given to sub-kanungos.

*Mr. Bell* understood that the zamindars were to have nothing to do with the patwari or his returns or his statistics, or indeed with his work in any way, but were to retain the privilege of paying for him.

*Messrs. Risley* and *Finucane* agreed that the zamindars would not be called upon for any returns or statistics of a general character, but added that the zamindars and raiyats alike would be benefited by the operation of the scheme, and would be asked to pay in equal shares for the benefit derived.

*Mr. Gibbon* then enquired whether Government would devise some summary procedure for the recovery of rent.

*Mr. Risley* said that it was impossible to devise any such procedure until the maintenance of the record had been secured.

*Mr. Gibbon* asked whether Government would promise to devise some such procedure, if the zamindars agreed to the proposals made for the maintenance of the record.

*Mr. Risley* said that no such promise could be given, and that Government could not go beyond Sir Charles Elliott's statement in Council that "he hoped it might be possible" to devise such a scheme.

*Mr. Gibbon* wanted to know what security they had that Government would not go beyond their present requirements in the matter of returns and statistics, and that interference would always be at a minimum. He contended that no one could pledge Government to this.

*Mr. Finucane* referred to the draft Bill, and pointed out that everything done under it must be confined to the record of transfers and to subjects connected with the maintenance of the record of rights. Obviously if any summary procedure could be devised at all it could not be till we got rid of disputes. The first step to shortening procedure is to minimise the possibility of there being matter left to dispute over; the record of rights, and the scheme for its maintenance, aim at effecting this object.

*Mr. Gibbon* feared that interference would certainly increase.

*Babu Parmeswar Narain Mahtha* cited as an example of increasing interference a recent addition to the road cess return form which required the entry of rates of rent—a completely new departure.

*Mr. Bell* thought that the instance showed the danger of trusting to the generalities that were being freely expressed.

*Mr. Risley* enquired what *Mr. Bell* would regard as an ideal method of maintaining the record.

*Mr. Bell* said that he agreed with *Mr. Gibbon* and *Mr. Maonaghten* that a periodical revision should be made at intervals of 10 years, and that no further attempts should be made to devise a scheme that it was impossible to work.

*Mr. Stevens* said that this could not be taken as a proposition, but merely as an opinion.

*The Maharaja of Darbhanga* said he could not express any opinion until the papers had been circulated among the members of the Bihar Landholders' Association and he had received their replies, but he would prefer *Mr. Bell's* suggestion for the periodical revision of the records if they were to be kept up at all.

*Sir William Hudson* agreed, but wished to add:—"Unless Government is prepared to give us a summary procedure for the recovery of rent."

*Mr. Gibbon* agreed, but wished to add:—"If Government insist, against our opinion, on the maintenance of the record by any other means, I would prefer the scheme suggested in the Government letter of June 30th, 1892."

*Babu Ram Dhari Sahai* agreed with *Mr. Bell's* suggestion.

*Mr. Risley* enquired whether, if *Mr. Bell's* suggestion could not be accepted by Government, the gentlemen present were prepared to offer an opinion on the schemes that had been submitted to them.

*Mr. Bell* and *the Maharaja of Darbhanga* expressed their inability to give a personal opinion on the point at present, as time was required to enable them to circulate the scheme among the members of the Bihar Landholders' Association.

*Mr. Stevens* enquired whether the opinions that had been expressed preferring a decennial revision were also liable to modification after further consideration.

*Sir William Hudson* said that those opinions were a plain and clear answer to a definite question propounded by *Mr. Risley*.

*The Maharaja of Darbhanga*, in reference to his opinion on that point, cited the case of the records of his own villages which were surveyed in 1878, and had recently been resurveyed, and in which very few alterations were found to be necessary.

*Mr. Bell* gave some details of those changes.

*Mr. Finucane* pointed out that a record that had been left uncorrected for five years would be quite useless in the courts, and that legal validity could only be secured for the record by its proper annual maintenance. Unless this were secured it would be impossible to devise any procedure for the summary recovery of rents or for simplifying the evidence under the ordinary procedure.

*Mr. Bell* disagreed and expressed his opinion that the Government of India should not force the maintenance of the record on the Provincial Government when a gentleman of the vast experience of *Mr. Gibbon* had declared that it was impossible to secure it.

*Mr. Risley* enquired, with reference to the registration scheme preferred by *Mr. Gibbon*, what was to be done with the map. The papers could be kept up under that scheme, but not the map.

*Sir William Hudson* pointed out that 8 out of 10 per cent. (the figure adopted as representing probable alterations) would be succession transfers involving no alteration of the map.

*Mr. Stevens* then asked for an answer whether, if it be determined that the record must be maintained annually or concurrently, the patwari would be preferred to the sub-kanungo.

*Mr. Finucane* again explained the difference between the two schemes.

*The Maharaja of Darbhanga* said no answer could at present be given.

*Mr. Gibbon* enquired whether he was to continue to nominate additional patwaris, substitutes for unfit patwaris, and the like.

*Mr. Stevens* said that *Mr. Gibbon* should formulate his question and send it up through the Collector of Champaran, but that in the meantime no change should be made in his present procedure.

*Babu Ram Dhari Sahai* enquired whether the registration of patwaris was to continue.

*Mr. Stevens* said that further orders would be subsequently issued on this point.

*Messrs. Gibbon and Bell* enquired whether the draft Bill and rules could be regarded as an official document.

*Mr. Finucane* said it was only a first draft not yet seen by the Lieutenant-Governor, but added that it had been prepared on the lines of His Honour's scheme.

*Mr. Bell* thought that the details of the scheme were of such importance that he would like to know, before he considered it, whether the Lieutenant-Governor approved of the draft.

As to a further meeting of the Conference, *Sir William Hudson* thought any such meeting would be unnecessary until at least a definite reply had been given to the suggestion that the records should be revised decennially.

After some discussion the Conference was adjourned to 8 A.M., on Saturday, the 5th August.

P. C. LYON,  
Secretary.

*Proceedings of a Conference held at Muzaffarpur on August 5th, 1893.*

PRESENT:

The Hon'ble C. C. Stevens, Member of the Board of Revenue, Lower Provinces (in the Chair).  
The Maharaja Bahadur of Darbhanga, K.C.I.E.  
Raja Ramesvar Singh Bahadur.  
A Forbes, Esq., Commissioner of the Patna Division.  
The Hon'ble H. H. Risley, C.I.E., Secretary to the Government of Bengal in the Revenue Department.  
Sir W. B. Hudson, K.C.I.E., President, Bihar Indigo Planters' Association.  
Colonel Sandeman, Director of Bengal Surveys.  
M. Finucane, Esq., Offg. Secretary to the Board of Revenue.  
Henry Bell, Esq., Manager, Darbhanga Raj.  
Babu Bepin Behari Bose, Manager, Hutwa Raj.

L. Hare, Esq., Collector of Muzaffarpur.  
W. D. Blyth, Esq., Collector of Champaran.  
W. C. Macpherson, Esq., Offg. Director of Land Records and Agriculture, Bengal.  
E. R. Macnaghten, Esq., Secretary, Bihar Indigo Planters' Association.  
E. G. Colvin, Esq., Settlement Officer, Champaran.  
H. Oollingridge, Esq., Indigo Planter.  
Rudston Brown, Esq., "  
Rowland Hudson, Esq., "  
A. Macrae, Esq., "  
E. Stevens, Esq., "  
Babu Ram Dhari Sahai, Secretary, Tirhut Landholders' Association.  
Babu Ramesvar Narain Mahtha.  
" Parmesvar Narain Mahtha.  
" Sridesvar Narain Mahtha.  
P. C. Lyon, Esq., Settlement Officer, Muzaffarpur (Secretary).

The minutes of the proceedings of the meeting held on August 3rd were taken as read and were agreed to, Mr. Bell and Sir William Hudson having previously read and considered them and admitted their accuracy. With reference to the remark made by him (see page 4 of the minutes) that in certain circumstances "no changes would be recorded," Mr. Finucane explained that he meant that no changes would be recorded by the sub-kanungo at that time. But the draft Bill provided for further action to compel information in cases of wilful obstruction or concealment. If it were found that information as to transfers was being kept back, and all other means of obtaining that information failed, the Collector would issue a notice calling for returns, and would insist on their being filed, imposing a fine for their non-production. And should the returns thus obtained prove incorrect, the zamindar would be liable.

Mr. Bell enquired whether the zamindar was to be held responsible for all inaccuracies in his returns discovered or alleged to exist by the sub-kanungo. In many cases he might be unaware of the existence of changes.

Mr. Finucane explained that it was only in cases of direct obstruction that the penal clause would come into play. The stages would be as follows:—

- (1) The parties would or would not file returns. This was at their option.
- (2) The sub-kanungo would go to the village and make enquiries as to changes after due notice of his intended visit to all parties concerned.
- (3) If he could gather no information, and there was evidence to show that there had been changes, and that both zamindars and raiyats were combining to conceal them, the sub-kanungo would report accordingly.
- (4) The Collector would then consider the report and, if he thought fit, call on both parties to file statements.
- (5) Then, if the parties still refused to file statements, or filed false ones, the penal clause would come into operation.

Sir William Hudson said that he thought that self-interest would prevent the occurrence of such cases.

Mr. Finucane said that his long practical experience satisfied him that, as a matter of fact, neither zamindar nor raiyat was ever found to resist contumaciously any reasonable procedure of the Government, and he hoped and believed they would not do so in the matter now under consideration.

Mr. Risley said that a draft Bill must be consistent and complete to stand against criticisms in Council, and that even unlikely contingencies had to be provided against.

Sir William Hudson said that he and others objected to the penal clause, on the ground that it gave the sub-kanungo a handle against both zamindar and raiyat, and that it was by using this handle that he would be enabled to extort bribes and reap his harvest.

Mr. Finucane said that the provision was not essential to the Bill, and might perhaps be modified in Select Committee.

Mr. Stevens remarked that at the last meeting they had been asked what sanction had been provided for such a case.

Sir W. Hudson said that the enquiry had only been made to show that the last state of the zamindar would be worse than the first. He contended that the section would give the sub-kanungo power to harass.

Mr. Risley pointed out that he was to be checked by superior officers, among whom was the Collector.

*Sir William Hudson* said that the Collector must be omitted from consideration, as he could not be expected to exercise effective control.

*Mr. Bell* said that, as a matter of fact, the zamindars would never be disabused of their belief in the power of the sub-kanungos. They would be paid for making entries, and then, in order to avoid the payment, both zamindar and raiyat would combine to conceal changes. The sub-kanungo would also think that he could best justify his appointment and show zeal by harassing all parties for information.

*Mr. Finucane* said he had not wished to raise a discussion about details, but only to point out what procedure would be followed in the case of combination.

*Sir William Hudson* said that, if the zamindar and raiyat combined and were determined to conceal changes, no procedure could be devised to make them disclose them. They wished to have the provision omitted.

*Mr. Stevens* then said:—At the end of our last meeting it was remarked that perhaps no further meeting was necessary till the definite orders of Government should be given on the suggestion of quinquennial or decennial revisions. I had intended to make it clear that this suggestion could not be adopted. The Lieutenant-Governor is fully persuaded that the discretion of the Government, which will be responsible for the accuracy of the record, should not be fettered by any conditions as to the periods at which corrections should be made, and he cannot accept the proposals to make these periods quinquennial or decennial.

I regret that *Mr. Gibbon* is not with us to-day, not only because we shall miss the benefit of his present advice and criticisms, but also because I wish to read to you a part of a letter, to which I attach great importance, written by him on the 24th October 1878, to the President of the Bihar Rent Law Committee:—

“The patwari should be nominated by the district officers, be the servant of Government, paid by the Government: he should be, as originally intended, ‘a record-keeper,’ and nothing but a record-keeper, entrusted with no executive powers. He should have nothing to do with the village collections, granting receipts, giving pattas and kabuliya, &c., &c.; the zamindar should be compelled to do all this through his own servants.

“The patwari being the record-keeper, the zamindar should be compelled to hand him copies in duplicate of the past year’s rent-roll (*jamabandi*) and balance sheet (*wasil-baki*), the current year’s ticca land accounts (*arsattu*) and instalments paper (*behri*), quarterly returns of all assessment papers (*khasras*), and also collections made (*seahas*), memoranda of lands relinquished by raiyats and new lands bandobasta with raiyats, with a list of pattas given and kabuliya received.

“One copy should remain with the patwari, the other be signed by the patwari and returned to the landholder. The patwari should be a good accountant and know something of surveying, in case you think it necessary that all measurement of jotes should be made by the patwari. The raiyat should at all times have access to the patwari’s papers, and the patwari be bound to afford him all information as to the state of his account.

“Instead of each petty village of from one to two hundred rupees rent-roll having a patwari of its own, the district should be divided into circles with rent-rolls of not less than Rs. 5,000, not more than Rs. 10,000. It should be optional with landholders to dispense with the present staff of men. Half the amount of money now expended by zamindars on the present staff, paid into Government treasuries, would be sufficient to secure the services of efficient men, and would be a saving to the zamindars, as it would enable them to get rid of the men who cannot afford to be honest on the small salaries they receive.

“All returns called for by district officers should represent the exact terms of the holdings, however ridiculous to them such terms may appear.”

After our meeting on Thursday, I told *Mr. Gibbon* that I had thought of reading this letter to the Conference that day, but that I deemed it better not to do so, since I was afraid that the effect might be to lead to irrelevant discussion, and I might have added that I was unwilling to forestal him in anything he might wish to say. He replied that I might have read it, and that there was nothing in it regarding which he had changed his views as to the conditions which then existed, but that circumstances have since become altered: when the letter was written, there was no survey or immediate prospect of one. But the difference which this change has made seems to me to be at the most one of convenience rather than of principle. In other words, the suggestions then made were proper in themselves, though the survey now, in *Mr. Gibbon*’s opinion, makes it unnecessary that they should be carried out. You will notice that the following considerations underlie those suggestions:—

- (1) It is right that Government should have at its disposal a local agency of contemporaneous record.
- (2) That agency should have no connection with the collection of rents, but should be entirely at the service of Government, and should be nominated and paid by Government officers.
- (3) It is reasonable that the zamindars should pay at least a share of the necessary expenditure direct into the Government treasury.
- (4) It is possible to secure, consistently with due economy, the services of efficient men.
- (5) The areas to be dealt with by these record-keepers should be readjusted, and the district divided into convenient and fairly uniform circles considerably larger than those of the existing patwaris usually are.
- (6) The present staff of patwaris should be placed at the disposal of the zamindars, to keep or to dispense with at their option.



These considerations, Gentlemen, are, you will perceive, exactly those on which the scheme now before you is based, and the only question is whether the survey has superseded them. In the opinion of Government it has not done so.

Just before we separated on Thursday, the very natural question was asked, whether the Bill then in your hands was to be taken as official, and as representing the views of the Lieutenant-Governor. You were told in reply that it was based on the Lieutenant-Governor's suggestions, but had not in its present form been considered by him. He has since seen the Bill, and I am authorized to tell you that he has accepted it as a provisional basis of legislation subject to the following modifications, on which he would like to be favoured with your opinion:—

- (1) A section should be introduced (after section 12?) imposing on the transferee (or successor) of a tenure, rent-free holding, or occupancy right, the obligation (subject to penalty of fine?) to report the circumstance of transfer to the kanungo. A fee should be levied on each transfer, &c.
- (2) The Collector and Registrar of Assurances should be bound to report to the kanungo all mutations, transfers, &c., under Acts VII (B.C.) of 1876 and III of 1877.
- (3) The fees to be levied under clause (1) above to be credited to a Land Record Fund for the district. All copying fees and fines, &c., to be credited to the same Fund. [It is for consideration whether fees under the Land Registration Act VII (B.C.) of 1876 should not be credited to the same Fund.]
- (4) The "Land Record Cess" to be subject to a statutory maximum of  $\frac{1}{4}$  anna per rupee of rent, but the rate at which it is to be levied to be fixed annually, with reference to the estimated income from "Fees" and "Fines." The accounts of the Fund to be published annually.
- (5) Omit the proviso to section 4 of the draft Bill.
- (6) Consider whether the officer should not be called kanungo instead of sub-kanungo. The higher officers to have higher titles.
- (7) The question of amending the Land Registration Act of 1876 and the Transfer of Property Act, with the view of relieving landholders from the obligation of effecting double registrations (i.e., in the Land Record and the Land Registration Offices), and of giving them the option of registering in the Registration Office alone, to be considered when the Bill is being prepared for submission to the Government of India, previous to introduction into Council."

I will say in conclusion that the strength of the supervising staff and the area of the sub-kanungo's jurisdiction are matters still open to consideration. If it be found possible for a better paid and higher class of official to cover a larger area, this may be subsequently arranged.

*Mr. Macnaghten* said that *Mr. Gibbon* had authorised him to say, with reference to the letter that had been quoted, that he claimed his right to change his opinions, that circumstances had altered since 1878, and that he did not adhere to the opinions expressed in the letter.

*Sir William Hudson* said that the principal reason that had induced *Mr. Gibbon's* change of opinion was the state of the law as regards the transfer of raiyats' holdings. As long as that was in a fluid state he could not hold by that former opinion. He (*Sir William Hudson*) was personally of the opinion that in the raiyats' interest the right of transfer should be abolished.

*Mr. Bell* said that they preferred *Mr. Gibbon's* present opinions to those expressed 15 years ago.

*Mr. Stevens* said that he had not understood *Mr. Gibbon* to say that he had changed his opinions, but that the conditions on which those opinions had been based had been changed. The letter had been read from no desire to convict *Mr. Gibbon* of inconsistency, or to deny him the right to change his views; the object was to show that the Lieutenant-Governor's scheme was not a mere official invention, but was exactly consistent with the opinion once held by an esteemed unofficial adviser of Government of great experience.

*Sir William Hudson* said that he understood that the Lieutenant-Governor's remarks on the Bill were all dependent on the choice that might be made by them.

*Mr. Stevens* agreed, and said that he was authorised to say that the Lieutenant-Governor would be quite prepared to come down to the meeting and discuss any particular points or amendments to the Bill.

*Mr. Bell* thought it was not necessary to trouble the Lieutenant-Governor to come.

*Mr. Finucane* said that the Lieutenant-Governor's note consisted of a series of concessions that he believed would be acceptable to the zamindars.

*Mr. Stevens* then asked whether the gentlemen present could now give him an opinion as to which of the schemes was to be preferred.

*The Maharaja of Darbhanga* said that he could not give an authoritative reply, as he had not had time to consult the members of the Bihar Landlords' Association, but that personally, as a choice of evils, he preferred the scheme in which the agent was to have a larger area and be better paid.

*Sir William Hudson* concurred, and asked that the complete scheme for the employment of sub-kanungos might be circulated for criticism. He then asked what executive orders were now to be issued respecting the registration and training of patwaris.

*Mr. Stevens* said that if the sub-kanungo scheme was the one preferred by them, he was prepared, under the Lieutenant-Governor's instructions, to stop all further action in the direction of the registration and training of patwaris. The entire abolition of the patwari system formed part of the kanungo scheme.

*Mr. Finucane* said that the Lieutenant-Governor was prepared to consider any reasonable modifications of the provisions of section 17 of the draft Bill when it went into Select Committee. It would not be put forward as a Government proposal to be necessarily passed in its present form.

*Mr. Stevens* added that in all matters of detail His Honour would be prepared to consider any reasonable proposals.

*Sir William Hudson* said that the question of the amount of interference was of great importance to them. Many of them thought that an extension of the area of the circles, and of the period of each revision, would diminish the amount of interference. He believed that three-quarters of the transfers would be succession transfers, involving little alteration of the records, and that the work in an area of 25 square miles would be light, especially if it should not be deemed necessary to recognise as transfers petty family arrangements, by which members of the same family privately divided up their lands amongst themselves. He was of opinion that the area might be extended, and that, if the period were also extended, a sub-kanungo might do the work of 100 square miles.

*Mr. Finucane* understood that the principle that Government would follow would be to extend the area to the maximum consistent with efficient work. Experience would show what that maximum was.

*Sir William Hudson* asked if Government would say definitely that no extension of time could be granted.

*Mr. Stevens* replied that this could not be said. Government could not bind itself as to the period of revision. In the matter of area, his personal opinion was that it would be dangerous to start by giving the sub-kanungo too large a charge, as this would involve risk of failure, but the general wish to have larger areas and fewer men, and those of a higher class, would be borne in mind; and if experience should show that larger areas could be adopted, it would be easy to make a change.

*Sir William Hudson* remarked that if we began with small areas, it was improbable that those areas would afterwards be enlarged.

*Mr. Risley* asked whether biennial corrections would not be of less value from a landlord's point of view in Civil Court suit than annual corrections.

*Mr. Stevens* thought it was unnecessary to discuss these details at the present time.

*The Maharaja of Darbhanga* asked that the Lieutenant-Governor's remarks might be put on the minutes of the proceedings, and that the zamindars might be favoured with as full an exposition of the views of Government as could conveniently be given.

*Mr. Risley* said that the Bill and rules would be circulated for criticism, and would doubtless form the nucleus of a vast amount of literature and discussion.

*Mr. Stevens* said that on Thursday he had laid before them, on behalf of Government, the four principles which the Government insisted on as fundamental. The details to be found in the draft Bill and rules and in the Lieutenant-Governor's remarks were on a different footing altogether. In reference to these, the Government was not only willing but anxious to obtain advice and help. It was completely recognised that the gentlemen present were in possession of a practical knowledge of facts which few officers of Government could acquire, and it was highly probable that even those gentlemen themselves could not fully appreciate the interests of other classes not represented at the meeting. He thanked the gentlemen present for their attendance; and on his own behalf he thanked them for making his labours easy by the friendly and courteous manner in which their discussions had been conducted.

The meeting then adjourned.

P. C. LYON,  
Secretary.

Dated Muzaffarpur, the 7th August 1893.

From—BABU RAM DHARI SAHAI, Hony. Secy., Tirhut Landholders' Association,  
To—The Secretary to the Board of Revenue, Lower Provinces.

WITH reference to the supply of coolies by zamindars, I am directed to state as follows:—

2. The zamindars are willing to give the services of three coolies at their own cost to accompany each amin that will be deputed to survey their entire and partitioned villages, it of course being understood that they will be employed by the amins solely on survey work and for such length of time only as the survey will continue; their employment will be contemporaneous with the continuance of the survey, and it will cease on the evening of the day it is completed. The amins should be directed to give a receipt to each zamindar, specifying the date, time, and the number of coolies that have been placed by him at their disposal. The zamindars should have the option, on receipt of the notice proposed to be given to them by the Survey Office, as to the probable date of the commencement of the work, and the estimated number of days for which the coolies would be required, either to supply coolies or pay in a lump sum of money to the Survey Office sufficient to cover their wages. We consider that Re. 1-13 per 100 bighas would sufficiently cover them, calculating



their wages at Rs. 3 a month. On payment of such sum of money, all responsibilities of the zamindar to provide for coolies shall cease.

3. As regards co-parcenary villages, any zamindar giving coolies shall be entitled to recover the amount jointly and severally from the pottidars. I am aware that there is no legal provision to that effect, but consideration might be made for it in the apportionment of costs, and on this subject I shall address you later on.

4. I may add that the advantages of the present offer would only be complete with the co-operation of the amins. As we have every desire to reduce the cost of the survey and meet the wishes of Government, we have made the offer; but as it will go to reduce a considerable amount of the profit which is now being made in the supply of coolies, you must be prepared to face considerable obstacles and opposition from the interested quarter.

5. I am directed to say that His Highness the Maharaja Bahadur of Darbhanga, Raja Rameshwar Singh, Bahadur, and Mr. Rott, Manager, Narhan estate, fully agree with the above.

6. I may add that a large number of zamindars have signed a declaration form undertaking to supply coolies for each amin while the survey is going on or to pay in their wages to the Survey Office in a lump sum at Rs. 3 a month.

(2)

*Government order, dated the 15th August 1893, addressed to the Board of Revenue.*

I AM directed by the Officiating Lieutenant-Governor to acknowledge the receipt of the Hon'ble Mr. Stevens' letter No. 826A., dated 14th August 1893, with its enclosure. Mr. Stevens' letter and the Minutes of Proceedings give a clear account of the deliberations of the Conference held with the representatives of the zamindars and indigo planters of Bihar on the subject of the cadastral survey and maintenance of the record of rights in North Bihar, and of the results of that Conference. Briefly stated, the results are that the influential and representative gentlemen who attended the Conference, while re-affirming their opposition to the survey and maintenance of the record altogether, but regarding the contingency that such opposition might prove fruitless, have admitted their preference for a system of maintenance through kanungos; that is, on the lines of the scheme proposed for criticism by His Honour the Officiating Lieutenant-Governor. This preference implies the rejection of the system of maintenance through village patwaris. The expression of this preference has been accepted by His Honour as decisive between the several schemes of maintenance, and orders will be at once issued to suspend the registration of patwaris under Regulation XII, 1817, or their utilization for survey purposes. The Lieutenant-Governor understands that this decision, which has already been communicated to the zamindars and indigo planters, has afforded them gratification.

The results of the conference are satisfactory to the Officiating Lieutenant-Governor, as clearly defining the situation, enabling Government to act with greater freedom and effect, and leading to the immediate removal of all those difficulties and uncertainties as to the agency by which the survey should be made and the record subsequently maintained, which had been gathering round the operations in North Bihar. These operations will now be prosecuted with vigour to a well-defined end by officers under the complete control of the Government alone, and subject to the checks and guarantees for accuracy of work which have been sanctioned by the Officiating Lieutenant-Governor at his interviews with the Hon'ble Mr. Stevens and the Settlement Officers, and Messrs. Carey and Craddock of the Central Provinces' Commission.

Measures will also be taken now to procure the necessary legal sanction to the creation of a land record agency on the lines indicated in the draft scheme and which were laid before the conference.

Sir Antony MacDonnell desires me in conclusion to convey his thanks to the Hon'ble Mr. Stevens for the judicious and effective way in which the proceedings were conducted by him. His Honour fully endorses the praise given by Mr. Stevens to the gentlemen, official and non-official, who attended the Conference. In his reply to the Tirhut Landholders' address on the 7th instant at Muzaffarpur, Sir Antony MacDonnell acknowledged the practical and helpful manner in which, always on the assumption that the record was to be maintained, the zamindars had co-operated with the officers of Government during the discussions, and the assistance they promised the Survey Department in the shape of unskilled labour free of charge.

ENCLOSURE IV.

- (1) *Letter from BABU RAM DHARI SAHAI, Honorary Secretary, Tirhut Landholders' Association, dated the 21st August 1893, to the Secretary to the Government of Bengal, Revenue Department, forwarding two Resolutions of the Tirhut Landholder's Association.*
- (2) *Letter No. 896T—R., dated the 1st September 1893, from the Officiating Secretary to the Government of Bengal, Revenue Department, to the Honorary Secretary, Tirhut Landholders' Association.*

[Resolution I is referred to in paragraph 5 of the Minute.]

(1)

I AM directed to have the honour to enclose herewith two Resolutions which have been passed by the members of the Tirhut Landholders' Association, with a request that you will be pleased to lay them before His Honour the Lieutenant-Governor of Bengal for His Honour's information.

*Tirhut Landholders' Association, Muzaffarpur.*

RESOLUTION I.

PROPOSED by Babu Parmeshwar Narayan Mahtha, seconded by Babu Ram Dhari Sahai, that the thanks of the zamindars of this district be communicated to the Hon'ble Sir A. P. MacDonnell, Officiating Lieutenant-Governor of Bengal, for withdrawing his recent orders regarding the registration of patwaris in this district—an order which has given great relief to us at present.

RESOLUTION II.

PROPOSED by Babu Bhugwati Churn, seconded by Babu Vishnath Pershad Mahtha, that thanks be communicated to the various officers of the Government, who have spared no pains to apprise the Government of the inconvenience to which the zamindars would be put to by the registration of patwaris and its following consequences.

RAM DAHARI SAHAI,

*Honorary Secretary, Tirhut Landholders' Association.*

(2)

I AM desired by the Officiating Lieutenant-Governor to acknowledge and thank the Tirhut Landholders' Association for the copy of the Resolutions adopted by that body in connection with the suspension of the registration of patwaris in Bihar. The registration of patwaris was undertaken with two objects, namely, with the immediate object of reducing the costs of survey, and with the ultimate object of providing an agency for maintaining the record when the survey had been made. The zamindars were, however, averse to their patwaris being registered and employed on either duty, and preferred a scheme of maintenance through officers of a superior status, which had been submitted by the Lieutenant-Governor as an alternative plan for their consideration.

In view of this preference, and of the reluctance of the zamindars to allow their patwaris to be brought under clear Government control, His Honour agreed to suspend the registration of patwaris and to propose the abolition of the Regulation XII of 1817, should the alternative scheme for maintaining the record be legalized. He is glad to learn from the Resolution forwarded with your letter that this decision on mature consideration continues to be approved by the zamindars of Tirhut. These zamindars have already agreed to assist the Lieutenant-Governor in reducing the cost of the survey by supplying unskilled labour free of cost, and His Honour is sure that this conciliatory spirit on the part of the Tirhut landholders will evidence itself in still further acts of helpfulness during the progress of the operations.

In conclusion, I am to say, with reference to the second Resolution, that the Tirhut Landholders' Association is labouring under a misapprehension of facts in attributing His Honour the Lieutenant-Governor's action on this matter to information received from local officers. As a matter of fact, no information was received by Government which induced any change in the Lieutenant-Governor's plans, or excited any doubt as to the suitability in the circumstances of the action taken under His Honour's orders.

## ENCLOSURE VI.

*Minute by MR. HENRY COLEBROOKE, Member of the Board of Revenue, dated November 1814, referred to in paragraph 17 of the Minute.*

On the subject of the reference of Government contained in the Chief Secretary's letter of 21st ultimo, I wish to record my sentiments previous to taking leave of the Board, although the many avocations incident to my approaching departure from India render it impracticable for me to do so as fully and with such explanation of the grounds of my opinion as I should have been desirous of doing if time permitted.

I have no hesitation in saying that I am entirely convinced, after the experience of more than 20 years, that the abolition of the office of kamungo was a radical error in the Code of Regulations framed at the close of Lord Cornwallis' Government, no office of registry and record calculated to supply its place being then substituted in its room. The Regulations in question did, indeed, provide for the formation of certain registers of land by officers of the revenue, which, it seems to have been supposed, would collect and preserve all information which Government might have occasion for. The expectation entertained from these and from the further registry enjoined by a subsequent Regulation have been entirely disappointed. It must be acknowledged they were ill-devised; and they have also been very imperfectly kept; and those which have been executed are of little utility. In every view, therefore, no doubt can now, I conceive, remain as to the expediency of rescinding all the Regulations concerning them, and of only requiring from the revenue officers an annual statement, in the manner of an account settlement, readily prepared in a simple form.

But had the proposed registers been more practicable, and been actually and regularly prepared in the prescribed form and within the enjoined period, and were they even effectual for purposes that concern the special interests of Government, still they were totally inapplicable to supply the kamungo's place in regard to such of his functions as concerned individuals and as affected their private interests. That point in particular which has been brought under the notice of Government, and is the subject of the present reference to this Board, is an instance conspicuous and important, as it has led to consequences affecting more than one department of the Administration, and to evils which urgently call for remedy.

At the period of the decennial settlements, subsequently declared permanent, the rights of zamindars and raiyats, as well in relation to Government as to each other, underwent much discussion, of which a great portion is to be found recorded on the proceedings of this Board. Among many important points not unconnected with the present subject one, especially, being immediate relation to it, which was then distinctly admitted, was that certain classes of subordinate tenants, and chiefly those denominated dependent talukdars and khodkasht or chupurbund raiyats, possessed certain rights and immunities, which it was just and expedient to uphold, but for which end (the zamindar's property in the soil being recognised, and he being permanently interposed between the Government and the raiyat) it has become necessary to make special provision for the security of subordinate tenures and maintenance of the rights of the tenants. With this view rules were framed, which were introduced into the amended Code of Regulations for the decennial settlements, from 52nd to 71st Articles of the Code, passed on 23rd November 1791 and re-enacted with other clauses interspersed in them in 51st and following sections of Regulation 8 of 1793.

At the date of this re-enactment of those rules, the permanency of the settlements and assessments of the land revenue having been in the meantime proclaimed, it was thought necessary to make particular provision for the protection of the resources of the public revenue from any permanent diminution through the improvidence of the landholders; and for this purpose chiefly a Regulation was then passed (44 of 1793), restricting the zamindars from granting pattas or leases, or otherwise entering into engagements fixing the payments of their tenants for any period exceeding ten years, and declaring all engagements between the zamindar or landholder and the tenants, however strictly conformable to Regulation, void and cancelled from the day of sale, in the event of the lands being sold by public sale for the discharge of arrears of assessment due by the zamindar, at the same time providing that the purchaser should be at liberty to collect from the tenants whatever the former landholder would have been entitled to demand according to the established usage and rates of the pargana or local division, had the engagements so cancelled never existed. It was subsequently declared by Regulation 4, 1794, that tenants whose pattas might be cancelled or might otherwise determine should not be required to take new pattas at higher rates than the established rates of the pargana for lands of the same quality and description, but should be entitled to have pattas renewed at the established rates.

When it is recollected how large a proportion of the lands of Bengal changed masters in a few following years, it will be easily conceived how prodigiously numerous must have been the cases in which engagements between landlord and tenant were annulled by sales for arrears due by the landlord to Government.

Other clauses of the same Regulation last cited show that extreme difficulty had been already experienced in the adjustment of the land rents between the zamindar and raiyats under the previous rules of the permanent settlement, which entitled the tenants to receive pattas at the established rates of the pargana. Yet not only were no means devised for arranging and preserving a record of those rates and of the rules by which they were

regulated, but an existing institution, the only one in which information could be then found and might be expected to be preserved, was unrelentingly abolished. It cannot be wondered that the consequence should have been, as is now generally acknowledged, that (with rare exceptions, which, owing to special circumstances, a record of the rates exists in the Collector's office, and of course with the exception of Benares and the ceded and conquered provinces, where a reformed sarishta founded on the kanungo's office has been kept up) the courts of justice which are by Regulation required to decide according to established pargana rates all disputes that arise between the raiyats and their landlords regarding the rates of the pattas which they are entitled to are unable to procure any evidence of those rates or any other satisfactory information to guide their decisions. Consequently the provisions contained in the general regulations for the permanent settlements designed for the protection of the rights of the raiyats or tenants are rendered wholly nugatory, and it has been repeatedly urged by many of the most judicious officers who witness the practical operation of the existing laws through the country, as it is now urged by Mr. Cornish, that it would be better for the tenants to declare them destitute of all immunities and of any right but such as may be specifically conveyed to them by the express terms of the engagements which they may be able to arrange with their landlords, rather than to suffer them to be misled by a vain confidence in supposed or acknowledged rights in which the courts of justice for want of definite information are unable effectually to support them. And certainly there appears to be no complete remedy, but either the sweeping one of abrogating the illusory privileges of the tenantry, or the arduous task of rendering their undoubted rights distinct and palpable, and furnishing the means of upholding them by now doing what should have been done in the first instance for the purpose of ascertaining and preserving the rules by which subordinate tenures should in the various parts of the country be regulated according to ancient and established usage as it subsisted or was understood at the period of the decennial settlement.

There can hardly be any hesitation as to the choice in this alternative. Entertaining, however, but a slender hope of the adequate accomplishment of the latter object, which is now become from lapse of time difficult of attainment, I proposed some time since a palliative remedy which was adopted in Regulation 5 of 1812, but which I fear, is but an insufficient relief of a serious and inveterate evil, more especially as the remedy provided applies only to individual cases as they arise, and does not operate with much effect to obviate future recurrence of disputes between other individuals.

I am disposed therefore to recommend, late as it now is, that measures should be taken for the re-establishment of fixed rules, as nearly conformable to the anciently established ones as may be yet practicable, to regulate distinctly and definitely the relative rights of the landlord and the tenantry.

The power of making laws for the protection and welfare of the tenants in the several classes of dependent talukdars, raiyats and other cultivators of the soil was expressly reserved to Government by an article of a Proclamation enacted into Regulation 1 of 1793, and rules with correspondent rates may be sanctioned by Government in prosecution of those measures, and in virtue of that power, without any apprehension of violating faith, if they should differ in some degree from the ancient usage, under the difficulty which must now attend the research and which will impede a perfectly exact ascertainment of it. Still, however, it is due to all parties interested that the best practicable means should be used to make the ascertainment as perfect as it is capable of being rendered.

But if Government should be unwilling to interpose its legislative authority for the purpose of furnishing clear and definite rules, by which the relative rights of zamindar and raiyat may be determined, and which would close an abundant source of mutual grievance and injury, and consequent disputes and litigation, the next best measure is to do what is yet practicable towards collecting and preserving such evidence and information as can be yet recovered; and placing it where persons having an interest therein may inform themselves concerning the existing evidence of their rights; and where courts of justice, when called upon to decide such questions, may find the information requisite to their investigation of the matter.

In either view or for either purpose the re-establishment of the kanungo sarishta or the institution of some analogous office of registry and record appears highly expedient. It would materially assist the recent as well as the earlier enactments of the Regulations designed for the protection of the tenant; it would greatly assist the adjustment of numerous disputes of every sort between landlord and tenant which actually arise, and would sensibly tend either to obviate their occurrence or at least to accommodate them at an early moment, perhaps without previous recourse of either party to a law-suit. But the most important of the objects for which the re-establishment of the office is desirable, no doubt, is the retrieval of a knowledge of these rules and rates, by which all questions between zamindars and tenants are by Regulation to be determined, and without which the relative interests of those parties can no way be settled, unless Government, as before suggested, will enter upon the task of fixing them by fresh enactments of law.

If it be indeed practicable to retrieve the requisite information by any means, it is most likely to be done through an office instituted on the basis of that in which formerly it was expected to be recorded and preserved. Such of the records of the ancient sarishta as yet exist would of course be transferred to the revised office; and the fittest among the persons formerly employed in it would naturally be engaged at the re-establishment

of it. Their recollection, or the means of enquiry which they would possess, would be most promptly serviceable to the recovery of such written records as yet remain, and to the collecting of information from various quarters, to supply the defect of records that are imperfect or the want of those which are lost.

On this account, joined with the consideration of the general utility of the office in the affairs of the land revenue as experienced in the provinces under the Board of Commissioners, it appears to be highly expedient that an officer on a footing similar to that of the reformed kanungo of Benares and the ceded and conquered provinces should be established in Bengal, as has been already recommended by the Board for Bihar, and as would have been at the same time recommended by us for the entire province of Bengal, had not the Board been withheld by the apprehension that the expense (no fund being suggested to defray it) might be an insuperable objection.

The general functions of the office would be the same with those of the ancient kanungo and of the reformed sarishtas of the ceded and conquered provinces and district of Benares. Their special duty, with reference to a principal object of the revived institution, would be to prepare a statement of the rates, or the rybundee, durbundee, or by whatever other name known, for the pargana or other local division, as they stood in the Bengal year 1197 (the first year of the permanent settlement), together with the abwab established previously to that year as well as the rules by which those rates were regulated and applied, ascertaining them from the records and old accounts which they may be able to collect, and from the best accessible sources of information where records may be deficient.

They should be further instructed to prepare statements of the actual rates according to existing engagements and present collections and payments between landlord and tenant. To enable them to execute this essential duty, the patwaris should be required to furnish all necessary information, and to allow them to inspect documents and accounts for which they may have occasion, and supply them with copies of accounts and papers wanted for records.

It does not occur to me to be necessary to state more particularly in this place the rules and instructions which it might be proper to prescribe for the guidance of pargana sarishtadars in the execution of these and other duties of their office.

Concerning the expediency of the institution, I shall only add that my recollection of the judicial duties both in a zilla and in a court of appeal in the province of Benares after the pargana sarishtas were there established on the basis of the kanungo, and in zillas of Bengal and Bihar before the abolition of the office in those provinces, enables me to affirm that disputes between zamindar and raiyat were less frequent and more easily determined than they now are in the Lower Provinces, and I am assured from more recent local experience and personal observation of other gentlemen, who have communicated their sentiments to me, that in Benares particularly, when the rybundee of a specific year is by Regulation prescribed and is forthcoming in the subsisting sarishtas of the parganas, the controversies between zamindar and raiyat, when any so arise, are by no means difficult of adjustment. The effect of this in lightening the burden of the administration of justice, and in the very important point of promoting the mutual good understanding and consequent ease and happiness of two principal classes of the community—the landowner and the husbandman—requires no elucidation.

H. C.

#### ENCLOSURE VII.

*Extract from a letter from the Court of Directors, dated 12th July 1820, to the Government of India, Territorial Department, referred to in paragraph 19 of the Minute.*

PARA. 10. In re-establishing the office of a kanungo you began with the districts of Bihar and Benares, and in these districts the re-establishment was at last effected. Correspondence had also taken place with the Collectors and Board of Revenue preparatory to its re-establishment in Hidgelee, Midnapore, Cuttack and certain districts of Bengal. The actual re-establishment, however, was still confined to Bihar and Benares. By this time you must have had some experience of the revived institution in these districts, and we need not tell you how much anxiety we feel to be speedily and fully apprised of its effects.

11. In the operations connected with the re-establishment of this office, the circumstance of principal importance is the resumption of lands. Anciently the kanungos were paid, as almost all civil functionaries in India were paid, by lands held exempt from the Government assessment. In Bihar and Benares the lands which had been so appropriated and were still held by the families of the ancient kanungos could be distinguished and ascertained.

12. These lands, you have informed us, it is your determination to resume, and upon the principle that the service being discontinued its payment ought to cease.

13. If this was intended to be established as a universal principle, the foundation does not appear to us to be quite sufficient for that important practical conclusion which you have erected upon it. Cases may exist in which it is proper that a payment should continue, even after the service to which it was at first annexed is no longer required. We trust, therefore,

that your determination to resume the lands of the ancient kanungos has been formed cautiously and upon a full conviction, after examination of the circumstances of this peculiar case, that no such right was created in favour of their existing descendants. We are aware that by Regulation IV of 1808, the revenue of the lands held by the kanungos in the ceded and conquered provinces was declared liable to resumption. But we do not conceive that the rule which was then followed ought to govern in future as a precedent, and every case of resumption should depend for its jurisdiction upon its own peculiar merits. We require that not only all reasonable claims of right should in those cases be respected, which is justice, but that the considerations of humanity should meet with their due share of attention.

14. The province of Benares was included in the provisions of Regulation IV, 1808, which organized the kanungo office for the ceded and conquered provinces, and rendered the lands held by the kanungos liable to resumption. Mr Deane reports that "in pursuance of the rules contained in that Regulation, several alterations appear to have been made in the appointments of mufassal kanungos in the province of Benares, and such of the nankar lands of the kanungos as has not been resumed by his predecessors were attached and settled by the late Collector, Mr. Salmon." From this we conclude that the whole of these lands in that province are now resumed. Mr. Deane continues: "No report, however, of the grounds on which the new officers were selected, or the former incumbents removed, nor any particulars of the nankar lands comprising 373 villages and assessed at a jama of Rs. 15,176-15-15, have been submitted to the Board of Commissioners or laid before Government, nor have any of the official records of the kanungos been deposited with the Collector in consequence of the investigation." Various things of importance which ought to have been done have thus been left undone without notice or complaint. You state what may be in part an apology for the successive Collectors, when you say that the business is too great for a single functionary; but we deem it an apology only in part, because it is surely not fit for the Collector to omit any part of his duty at pleasure without reporting upon it explicitly and declaring the causes of any omission which he may be obliged to make. But if you have stated an apology in part for the Collector, you have offered nothing in the way of apology for the Superintending Board, whose duty it was to call for those reports and statements, and not to overlook a remarkable dereliction of duty in the public officers under their charge. We are sorry to observe that a chain of neglect, continued from the inferior to the superior, should have existed so long without making itself known to the Supreme authority; it might, for aught we see, have continued to exist for any length of time, had it not been for the appointment of Mr. Deane.

15. In the correspondence respecting the re-establishment of the office in the Hidgelee malams, in Midnapore, Cuttack, and certain districts of Bengal, we see nothing which very strongly calls for remark, except the proposed resumption of lands. As the same considerations apply to that measure in these cases as in the case of Bihar and Benares, it is only necessary here to press them again upon your attention. In these several places more difficulty was anticipated in establishing the office than had been experienced in Bihar and Benares, where a kanungo had belonged to every pargana, and where in consequence it had been practicable to select persons for the revived office from the families of the ancient kanungos. In other districts this had not been found practicable, because there a few sadar kanungos had formerly performed the business of a whole district, by the aid of subordinates. We cannot, however, imagine that the difference between a descendant of an ancient kanungo and another person is so great in this case, where very simple duties are imposed, as materially to increase the difficulty. Where new measures are to be introduced, and new labour to be undergone, there is a great temptation to raise imaginary difficulties, and though we do not pronounce that those here alleged are altogether of this description, it is highly incumbent upon you to be on your guard against so natural and dangerous a propensity.

16. With regard to patwaris, the office did not require to be re-established, for it continued in existence, and the maintenance of a patwari for every village was imposed as an obligation upon the zamindars by the terms of the perpetual settlement. It had been found, however, that the accounts which were kept by those patwaris were altogether unworthy of trust, and were so framed as to promote the sinister interests of the zamindars, by whom they were paid, both in defrauding the Government and in oppressing the raiyats. When we turned our attention to the means of rendering the ancient accounts of the country subservient to the affording of that knowledge, which might enable us more perfectly to secure both the interests of the Government and those of the raiyats, it was necessary of course to consider the means of obtaining true instead of false accounts from the patwaris. For this purpose it appeared to us to be absolutely necessary to remove them from all dependence upon the zamindars. We accordingly give you explicit directions to make them servants of Government, by transferring the choice, the pay and superintendence of them wholly to the Collectors.

17. Your communications to us upon this subject are almost entirely confined to your determination not to follow the plan prescribed by us, but to substitute another of your own. We do not mean to command the repeal of the Regulation which you have passed for this purpose. We are willing that what you have begun, and which no doubt by this time is in full operation, should not be abruptly interfered with, but should now at least have an adequate trial.

18. Having come to this decision, we do not think it necessary to enter into any minute consideration of your plan. It is proper, however, to inform you that the reasons which you



have adduced for considering as impracticable the measure which we recommended, have by no means convinced us, and we see too many reasons for apprehending that the expedients which you have adopted will very imperfectly accomplish the end. We shall merely state as shortly as possible a few considerations which may elucidate the view which we take of the subject, and point out the inconveniences and dangers against which you ought to provide in carrying your scheme into execution.

19. Your objections to place the patwari in dependence upon the Collector are, that this would be a change of system; that the zamindars would be offended; that it would be inconsistent with the spirit of the permanent settlement; that the Collectors would be incapable of making a proper choice of patwaris, or of making them discharge their duties; and that a mode of paying them would not be easily found.

20. That it would be a change is implied in the very idea of an evil to be removed, or an advantage to be gained. But we are by no means of opinion that it is a change the inconvenience of which would not be overbalanced by the attainment of the end we have in view.

21. We expect that the zamindars will be offended by any plan we can adopt which will deprive them of a present advantage, whether derived from defrauding the Government or oppressing the raiyats. It is the loss rather than the mode of losing by which they will be irritated. In the mode by us proposed we see nothing peculiarly calculated to act painfully upon their feelings.

22. That it is contrary to the spirit of the permanent settlement to make the patwaris dependent upon the Collectors, or to take any other measures that may be necessary for protecting the Government from the frauds and the raiyats from the oppression of the zamindars, we cannot possibly admit. We cannot indeed forbear expressing a considerable degree of surprise that you should have entertained such an opinion. You know that in enacting the perpetual settlement Government reserved to itself—that of which no Government can lawfully divest itself—all the powers necessary for maintaining justice between one class of its subjects and another.

23. When you state as another objection the inability of the Collectors to make a proper choice of patwaris, or sufficiently to control them, we do most anxiously hope that you have exaggerated the difficulty; for, if not, the objection extends much farther than to the modes of appointment. You have in various places declared, in the strongest terms you could employ, that the control of the Collectors over the patwaris was the only ground of hope from their services, and here you seem to affirm that the Collectors will be unable to control them.

24. We cannot imagine that you lay great stress as an objection upon the difficulty of paying the patwaris. It was not intended to prevent the patwari from keeping the same accounts for the zamindar which it was formerly his duty to keep. It was only intended to use means for making him keep true accounts. As he would have rendered all lawful services to the zamindar in the same manner as before, it appears to us that the zamindar was bound by the very terms of the perpetual settlement to afford the pay in the same manner as before. However, if this had been found to be a point particularly objectionable to the zamindars, a compromise might have been devised.

25. In the plan which you have adopted, several of the expedients for counteracting the influence of the zamindars and preventing it from operating upon the patwaris to the production of false accounts appear to be judiciously devised. But the immediate dependence of the patwari upon the zamindar, which you have allowed to remain, is a source of evil against which it will require an increased and very peculiar degree of vigilance to guard. This, we confess, is the source of our apprehension. Every idea of benefit from this attempted reform is by yourselves attached to the control of the Collectors. But it is impossible we should not be deeply impressed with the evidence which you have forced upon our attention that a control sufficient for the objects in question is, in the present state of the revenue service, hardly to be expected. Your immediate attention ought to be directed to what it may be possible to obtain from such a control, and generally to render the superintendence of the Collectors more efficient for protecting the raiyats and preventing frauds upon the Government.

26. Unless the Collectors have some ready means of detecting errors in the accounts of the patwaris, it is more than probable that they will abound with errors. We are fully convinced that additional expedients for this purpose are still required, and that under the present system of checks, unless in the rare instances of extraordinary vigilance and penetration combined in the Collector, an understanding to very pernicious purposes may subsist undetected between the patwaris and zamindars.

27. We are not perfectly sure that the old system of patwari accounts, though in general not ill-adapted to the circumstances of the case, yields the whole of the information which that class of accountants might easily afford. One thing is peculiarly important, that their accounts should contain the whole of the payments which under any claim whatsoever are made by the raiyats to the zamindars, and the strongest securities ought to be taken for preventing any payment which they do not record. For ascertaining whether by any addition to the present accounts or any other change you can render them more conducive to the end in view, important information might be received by fit questions addressed to the most intelligent of your revenue servants. The rule which you have prescribed for summoning the patwaris before the Collector, with all their accounts and making them

answer questions upon oath; may be attended with advantage, and we trust that you will insist on its being uniformly obeyed.

28. The examination should take place at least once a year, at that period at which the accounts of the year may be considered complete. It ought to be done by the Collector in person in as many cases as possible, where it is possible, and by persons selected by him for that purpose. In all those cases, too, in which it is done by other persons than the Collector, it would be useful that a report containing at least the material points of the examination should be presented to the Collector. If this examination would be useful, it is evidently of importance that it should be made to take place in those circumstances which afford the greatest security for the truth of the answers. The presence of persons acquainted with the facts is the best security applicable to the case, and these are respectively the raiyats of the villages. The proceeding, therefore, should be attended with publicity. The examination should take place in the presence of the raiyats, who should be invited to contradict the statements of the patwari, as often as they knew them to be false, and to suggest questions by which the full truth may be disclosed.

29. We have entered thus far into details respecting this examination, because we are fully convinced that, unless the Collectors effectually descend into details, you will never obtain accurate information, and because we are equally convinced that, unless you prescribe specific details, the Collector will never undertake them, but will continue to perform the duties of their office in that summary and superficial way of which there is too much reason to complain. We are aware, however, of the disadvantages under which, at this distance, we endeavour to conceive a process of detail, and leave all suggestions of this kind fully open to your deliberation.

30. In the duties which are prescribed to the kanungo, provisions of considerable efficiency are made for detecting the frauds of the zamindars upon Government, but we see very little in those duties which has any tendency to afford protection to the raiyats. We have no doubt that this is a part of your arrangements which will be found susceptible of very great amelioration, and we trust that by this time your experience will have added to your means of rendering the measure complete. The great end of the kanungo office is to make the accounts of the patwaris useful. This is not to be done by merely receiving and preserving them. Two previous conditions are necessary—that the accounts of the patwaris contain all the requisite points of information, and that it be true information. The information which the patwari accounts ought to contain is simple; it is information of what is due and what is paid by the raiyats to the zamindars, and of what is due and what is paid by the zamindars to Government. To find securities for making this information true, is, as it has been justly described by you, most difficult. You are of opinion that much advantage may be derived for this purpose from the agency of the kanungos; and if the fidelity of the kanungos can be secured, and if an appropriate line of duty is prescribed to them, there can be no doubt of the fulfilment of your hopes. These two, therefore, are the objects to which your most strenuous attention is required, and the abilities of your most experienced servants should be called in to your aid in devising a system of means for the accomplishment of so important an end.

#### ENCLOSURE VIII.

MR. CHAMBERLAIN'S letter, dated 18th April 1819, to Board of Revenue; Board's letter, dated 18th May 1819, to MR. CHAMBERLAIN; and Board's Resolution, dated 11th June 1819, regarding the salary of, and forms of accounts to be kept by, patwaris.

[These papers are referred to in the foot-note to paragraph 19 of the Minute.]

Dated Dinajpur, the 18th April 1819.

From—R. CHAMBERLAIN, Esq., Secretary, on deputation,

To—GEORGE WARD, Esq., Secretary to the Board of Revenue, Fort William.

THE offices of kanungo and patwari being so intimately connected with each other, that the beneficial results looked to from the re-establishment of the former must in great measure depend on the degrees of efficiency and success with which the reforms in the latter may be carried into effect under the provisions of Regulation XII of 1817, extended to the province of Bengal by Regulation I of the current year, I beg to submit the following remarks on the subject of the patwari office for the consideration of the Board of Revenue.

2. The Regulation above quoted clearly points out the situations and manner in which patwaris are to be appointed, and judiciously guards against any material innovation on established usage either in regard to the nomination of these officers, or to the mode in



which their salaries or other allowances and emoluments of office are to be paid; but it may be satisfactory to the Board to know in what mode, by whom, and on \* \* \* what scale patwaris are usually paid, and to establish, as far as may be practicable, uniformity in their forms of account.

3. In the Western Provinces, including Benares and Bihar, the expense of the patwari more generally falls on the raiyats; sometimes it is exclusively borne by the landholder, and often mutually by both; if paid by the raiyats the amount is usually levied by a cess of half, three-quarters, or an anna on every rupee of revenue paid by them, or when paid in kind, by one seer of grain on each maund produced, or by five seers at each harvest on every plough in the village. If the patwari be paid by the landholder, it is either by land or a monthly salary, and sometimes both, the raiyats usually presenting a small present (optional) either at the harvests, or on receiving the farkhuttee (annual acquittal). When both parties contribute to the expense, the preceding modes of payment prevail, but in a lighter degree on each. The amount of salary or other emolument receivable by the patwari depends of course on the extent of resources of the village he may superintend, but from Rs. 2 to Rs. 5 monthly may generally be calculated on, or a charge of from three to five per cent. on the amount collections.

4. In Bengal or in those districts in which I have had opportunities of making inquiry, the patwari appears to be paid by the landholders almost generally either by a fixed monthly salary, or by commission on the amount collections of the estate under his superintendence, receiving from each raiyat a small present in cash or kind, either at the time of executing the patta or giving the annual acquittal; this, however, is entirely optional with the latter, though usually observed.

5. From my own inquiries in 35 estates taken indiscriminately in this district, and situated in the parganas of Noorpoor, Punjra, Deora, Suntose, and Sooltanpoor, I find the patwaris are paid exclusively by the several landholders, by a commission of three per cent. on the amount collections in eight villages, and three-and-a-half per cent. in 27 villages. The collections from these estates, respectively, amounting to from Rs. 600 to Rs. 1,800, yield a monthly allowance to these officers of from Re 1-8 to Rs. 4-8, exclusive of their fees from the raiyats. Some patwaris, however, have the superintendence of much more extensive estates, keeping muharrirs to assist them. In such cases their receipts and allowances are of course proportionately great.

6. Patwaris, as far as I have yet ascertained, appear to be kept up almost generally in this district, and from the simple mode in which they are usually paid, I should conceive the Acting Collector will meet with no difficulty in regulating, according to pargana usage, the amount of salary or commission to be received by such officers in villages to which they may yet remain to be nominated.

7. The forms of account used by the patwaris here appear by no means so perfect as they should be; for instance, the total quantity and descriptions of land comprising each village are not stated, only an account raiyatwar of such lands as are in cultivation. I therefore beg to submit, for the approval of the Board, the accompanying forms of account in Persian and Bengali, which correspond with those used in the ceded and conquered provinces in Benares and Bihar, and which I think may be introduced gradually in the districts of Bengal with great advantage. The accounts are quite simple and perfect, and are as follows:—

- 1st.—First Rukhabundee, or statement of the total quantity and descriptions of land comprising the village.
- 2nd.—Pymaish Nugdee Asameewar (supposing a part of the village pays in kind and a part in cash, which commonly occurs). A statement agreeably to measurement of the quantity of land cultivated by each raiyat, for which cash payments are made, with the descriptions of cultivation and produce.
- 3rd.—Hissab Nugdee Asameewar. A statement of the rates per bigha and total demand against each raiyat for the lands in statement the second.
- 4th.—Seah Amudunee Asameewar. Statement showing the daily payments made by each raiyat on account of the demand in statement the third.
- 5th.—Teriji Khuttaanee Wussoolee Nugdee Asameewar. Statement exhibiting the dates and total amount paid by each raiyat on account of the demand in statement the third.
- 6th.—Jama Wassil Baqee Nugdee Asameewar. The demand receipt and balance against each raiyat on account of the land in statement the second.
- 7th.—Khasra Buttace Pusi Bhudwe Asameewar. A statement exhibiting the quantity of land cultivated by each raiyat which pays in kind, with the description, quantity, and division of produce.
- 8th.—Khasra Buttace Pusi Khureef Asameewar. A corresponding statement to the preceding of the khureef cultivation.
- 9th.—Khasra Buttace Pusi Rubee Asameewar. A corresponding statement to the preceding of the rabi cultivation.
- 10th, 11th and 12th.—Similar accounts to the preceding of the several harvests of two dependent villages, taluks.
- 13th.—Hissab Saltamaum Asameewar. Annual account of each raiyat's cultivation of lands which pay in kind, as stated in Nos. 7, 8 and 9, specifying the description and amount of produce at each harvest, with the nirik or price at

which the proprietor's share of produce is commuted for cash payments  
At the back is the khuttaunee or account of the total of each item.

14th.—Jamabandi Terij Saltamaum. An account of the annual produce of the village, both nugdee and bhuahee, with the amount of each harvest.

15th and 16th.—Similar accounts to 13 and 14 of the dependent villages.

17th.—Jamabandi Terij Saltamaum. An account of the total annual produce of the original and dependent villages, nugdee and bhuahee, with the amount of each harvest.

18th.—Jamakhurch Saltamaum. An account of the annual collections and disbursements of the whole village.

8. The only alteration necessary to adapt these forms to the several districts in Bengal is to insert the names of the Bengali seasons in lieu of those of Bihar, and which I believe has been done in the counterparts in Bengali.

Dated Dinajpur, the 18th May 1819.

From—GEORGE WARD, Esq., Secretary to the Board of Revenue, Fort William,  
To—R. CHAMBERLAIN, Esq., Secretary, on deputation.

I AM directed to acknowledge the receipt of your letter, and its enclosure, of the 18th ultimo, and to acquaint you that the Board entirely approve of the forms of the patwaris' accounts which you propose for general adaption. You will be pleased to furnish the Acting Collector of Dinajpur with copies of them, together with such suggestions with respect to their introduction and for the modes of remunerating the patwaris in cases where the appointment of them may become his duty, as may appear to you expedient with reference to the usage of the parganas in which he may have to nominate them.

The several Collectors under the Board's authority will be furnished with copies of the forms of patwaris' accounts, with instructions to report whether they can be introduced in their several districts, and in what respects they differ from those already in use. They will likewise be required to supply information with respect to the modes and rates of remuneration of the village officers of account now prevailing.

*Circular with the exception of Iligilee.*

As the reformation of the office of patwari under the provisions of Regulation XII of 1817 is in progress in those districts in which the establishment of the kanungos has been in a great measure effected, and as the Collectors of other districts will be required to introduce the prescribed measures under those provisions as soon as the latter institution shall have been established in their respective districts, the Board of Revenue deem it proper to provide all the Collectors under their control with copies of the orders of Government of the 2nd instant, and also with an extract from their resolutions on the proceedings of the Collector of Iligilee on the subject of the office of patwari, for their information and guidance.

2. In communicating the above proceedings, the Board resolve that those Collectors in whose districts the office of kanungo has been established, be required to conform generally to the principles elucidated in the above-mentioned documents, and to comply without loss of time with the following instructions; and that the others, in whose districts it has not been established, conform to them whenever the kanungo arrangements shall have been completed.

3. The malguzars should be required to furnish a statement, of the nature of that alluded to in the annexed resolutions of the Board, of their present private establishment of village accountants; and they should be informed that such requisition is for the purpose of reconciling, as far as may be consistent, the difficulties they may urge with respect to expense. After the delivery of such statement, the Collectors might show to the malguzars all the forms of patwari accounts that will be required to be constantly kept up as permanent records of the patwari's duffar, and to obtain from them categorical answers whether the number of persons now employed by them will be sufficient to perform all the requisite duties of the patwari establishment without much increasing their expenses. In such cases, after having seen and examined the persons to be appointed patwaris, and satisfied themselves of their qualifications, the Collectors might report the circumstances to the Board.

4. In the commencement this might be adopted as an experiment, without pledging its continuance; if it should be found adequate, the public interests would not require more; if it be proved insufficient, the malguzars would have the less reason to complain of the alteration.

5. The forms of accounts to be kept by patwaris adopted by the Board will be transmitted with these instructions to those Collectors who have not yet been provided with them, together with a copy of a letter from Mr. Chamberlain on the subject of those accounts.

# FORMS OF ACCOUNT REFERRED TO IN BOARD'S LETTER DATED 18TH MAY 1819.

*Fehrishet rakhabandi or statement of the total quantity, mauza Elahipur, pargana Rampur, district Jasaratpur, year 1226.*

Assami.	Mauza.	Asli.	Dakhili.	Total land.	Rs.
Elahipur	With 2 Mauzas	... 1	1		551
Para Rampur and Para Muradpur.	2 Paras	... ..	2	Deduct— Lakhiraj Bishunputi Piran ...	Bs. 10 14 —
					24
					527

	Rs.	
Elahipur	... 427	<i>Detail.</i>
		Jangalkati Nawabadi Para Rampur and Para Muradpur ... 100 bighas.
		<i>Details.</i>
Jamai	... 106	Para Rampur.
Bhagrakhamer	... 195	50 bighas.
Unculturable waste	... 10	
Culturable	... 40	
Bastu waste	... 20	
Garden	... 10	
Public road	... 10	
Tank	... 15	
Sivalaya and tomb	... 5	
Bush and road	... 2	
Wells (kutcha and pukka)	... 1	
Flowing river	... 7	
Place for Sati	... 6	
	427	

*Mashahat Chita Pomaish Jami Jamai, mauza Elahipur, pargana Rampur, district Jasaratpur, year 1266.*

Assami.	Date	Day of week	Land measured	Dag.	Length.	Breadth.	Area.	Produce.
	...	...	...		B. k.	B. k.		
<i>East mat of the village.</i>								
Tika Kayari	...	...	...	1	5 0	4 0	20	Kanja chal.
South of preceding	...	...	...	2	2 10	2 0	5	Jali.
East of preceding—Lalu Kayari	...	...	...	3	3 0	4 0	20	Kanja chal.
East of preceding—Lalu Kayari	...	...	...	4	2 8	2 0	5	Jali.
North of preceding—Ram Ray	...	...	...	5	4 0	3 8	10	Sugarcane.
East of preceding—Gokul Ray	...	...	...	6	4 0	2 8	10	Ditto.
South of preceding—Kamal Sarnakar	...	...	...	7	4 0	2 8	10	Karpa (cotton).
South of preceding—Joha Ray	...	...	...	8	4 0	2 8	10	Khand.

*Jamabandi Jamai Jami, mauza Elahipur, pargana Rampur, district Jasaratpur, year 1226, Bengali era.*

Assami.	Land.	Rate.	Total.	Total land.	Amount.
	B.	Rs. A.	Rs. A.	B.	Rs. A.
<i>Tika Kayari—</i>					
Kanja chal	20	2 0	40 0	35	55 0
Jali	5	1 8	7 8		
Khand	10	0 12	7 8		
<i>Lalu Kayari—</i>					
Kanja chal	2	2 0	40 0	31	49 12
Jali	6	1 8	7 8		
Khand	6	0 6	2 4		

*Sehā amdani Rupeya, mauza Elahipur, pargana Rampur, district Jasaratpur, tahsil Nahdi, year 1226, from 5th Baisakh to 2nd Jaith.*

Assami.	Rs.
5th Baisakh, Tuesday—	
Tika Kayari ... ..	45
Lalu Kayari .. ..	41
Ram Prosad Ray ... ..	11
Kamal Sarnakar ... ..	10
Gokul Ray ... ..	12
Joha Ray ... ..	4
Total ... ..	122

*Tarikhsvari Khatian Rupeya, Babat Jamai Jama, mauza Elahipur, pargana Rampur, district Jasaratpur.*

Tika Kayari, Assami—	Rs.	A.
5th Baisakh, Tuesday .. ..	45	0
15th Baisakh .. ..	10	0
Total .. ..	55	0
Lalu Kayari—		
5th Baisakh, Tuesday ... ..	40	0
15th Baisakh .. ..	5	0
2nd Jaith .. ..	4	12
	49	12

*Jamaicilbaki Rupeya Assamian Babat Jamai, mauza Elahipur, pargana Rampur, district Jasaratpur, year 1226, from beginning to end*

Assami	Jama.	Payment.	Balance
	Rs.	Rs.	
Tika Kayari .. ..	55 0	55 0	.....
Lalu Kayari .. ..	49 12	49 12	.. ..
Ram Prosad Ray .. ..	20 0	20 0	.. ..

*Khasra Batas Fasal Bhadoi, mauza Elahipur, pargana Rampur, district Jasaratpur, year 1226, from 15th Bhadra to 16th on the 15th Bhadra.*

Assami.	Area.	Produce	Weight in maunds (so much).	Half-share of the Sarkar.
	B.		M.	M. s.
Ram Prosad Ray ... ..	10	Suna .. ..	30	15 0
Gokul Ray .. ..	15	Do. ... ..	45	22 20
Tika Kayari .. ..	20	Do. ... ..	50	25 0

*Khasra Batas Fasal (torn), mauza Elahipur, pargana Rampur, year 1226, date 21st Agrahayan.*

Assami.	Area.	Produce.	Weight in maunds (so much).	Half-share of the Sarkar.
	B.		M.	M. s.
Ram Prosad Ray ... ..	15	Sali ... ..	45	22 20
Kamal Sarnakar ... ..	15	Do. ... ..	40	20 0
Gokul Ray ... ..	5	Do. ... ..	15	7 50
	35		100	50 0

*Khasra Batas Fasal Rabi, mauza Elahipur, pargana Rampur, year 1226, date 15th Baisak.*

Assami.	Area.	Produce.	Weight in maunds (so much).	Half-share of the Sarkar.
	B.		M.	M. s.
Ram Prosad Ray ... ..	18	Matar (peas) ... ..	39	19 30
Lalu Kayari ... ..	15	Barley ... ..	50	25 0
Gokul Ray ... ..	12	Wheat ... ..	28	14 0
Tika Kayari ... ..	10	Ahar ... ..	23	11 20
	55		150	75 0

*Khasra Batai Fasal Bhadoi, Babat Jangalkati, Noabadi Para Rampur and Para Muradpur, included in mauza Elahipur, pargana Rampur, year 1226.*

**PARA RAMPUR.**

Assami.	Length.	Breadth.	Area.	Produce.	Weight in maunds (so much).	Half share of the Sarkar.
	B. k.	B. k.	B. k.		M. s.	M. s.
Narku Gope ...	4 0	2 0	8 0	Janera	50 0	25 0
Ditto ...	2 0	1 5	2 10	Kodo	30 0	15 0
Ditto ...	2 10	2 0	5 0	Do	25 0	12 20
Ganga Ram ...	2 10	2 10	6 5	Suna	31 10	15 25
Daya Ram ...	2 0	2 0	4 0	Jute	17 0	8 20
			25 15		153 10	76 25

*Khasra Batai, Fasal Kharif, i.e., Agani Babat Jangalkati, Noabadi Para and Para Muradpur included in mauza Elahipur, pargana Rampur, district Jasaratpur, year 1226.*

**PARA RAMPUR.**

Assami.	Length.	Breadth.	Area.	Produce.	Weight in maunds (so much).	Half share of the Sarkar.
	B. k.	B. k.	B. k.			M. s.
Narku Gope ...	1 0	1 0	1 10	Sah	6	3 0
Ditto ...	0 15	0 10	0 7½	Do.	1	0 20
Ditto ...	1 0	1 0	1 0	Do.	5	2 20
Ganga Ram ...	0 12	0 10	0 7½	Sone	2	1 0
Daya Ram ...	1 0	1 0	1 0	Do.	6	3 0
			4 5		20	10 0

*Khasra Batai, Fasal Rabi Babat, Jangalkati Noabadi Para Rampur and Para Muradpur, included in mauza Elahipur, pargana Rampur, district Jasaratpur, year 1226.*

**PARA RAMPUR.**

Assami.	Length.	Breadth.	Area.	Produce.	Weight in maunds (so much).	Half share of the Sarkar.
	B. k.	B. k.	B. k.		M. s.	M. s.
Narku Gope ...	2 10	2 0	5 9	Mater (poas)	30 0	15 0
Ditto ...	2 10	2 10	6 5	Barley	32 0	16 0
Ditto ...	1 10	1 10	2 5	Wheat	12 0	6 0
Ganga Ram ...	2 0	1 10	3 0	Ditto	15 0	7 20
Daya Ram ...	2 0	1 15	3 10	Arhar	17 20	8 30
			20 0		106 20	53 10

*Jamabandi Salaria, from Fasal Bhadoi to Fasal Rabi, mauza Elahipur, pargana Rampur, district Jasaratpur, year 1226.*

**FASAL BHADOI.**

Assami.	Area.	Produce.	Weight in maunds (so much).	Half share of the Sarkar.	Rate per rupee.	Amount.
	B.		M.	M.	M. s.	Rs. A. P.
Ram Prosad Ray ...	10	Suna	30	15	3 0	5 0 0
Ditto ...	8	Jute	24	12	2 10	5 5 3
	18		54	27		10 5 3

*Khatian Assamiwar Babat Tin Fasal Bhag Khamar, Elahipur.*

Assami.	Fasal bhadoi.	Fasal agani (kharif).	Fasal rabi.	Total amount.
	Rs. A. P.	Rs.	Rs. A. P.	Rs. A. P.
Ram Prosad Ray ...	10 5 3	9	4 14 3	24 3 6

*Terij jamabandi Saltanah Babat Bhag Khamar, from Fasal Bhadoi to Fasal Rabi, mauza Elahipur, pargana Rampur, district Jasaratpur, year 1226, date 30th Jaith.*

## FASAL BHADOI.

Assami.	Area.	Produce (in maunds).	Half share.	Rate per rupee.	Price.
	B.	M.	M. s.	M. s.	Rs. A. P.
Suna	60	165	82 20	3 0	27 8 0
Jute	22	65	32 20	2 10	14 4 6
	82	230	115 0	...	42 0 6

*Terij jamabandi Daran Fasal Bhadoi, Nagaid Fasal Rabi, Para Rampur and Para Muradpur, included in mauza Elahipur, pargana Rampur, Jasaratpur, year 1226 B.S.*

## FASAL BHADOI.

## Para Rampur.

Assami.	Area.	Produce.	Weight in maunds (so much).	Half-share of the Sarkar.	Rate per rupee.	Price.
	B. K.		M.	M. s.	M. s.	Rs. A. P.
Narku Gope	8 0	Janera	50	25 0	5 0	5 0 0
Ditto	2 10	Kodo	30	15 0	7 10	2 0 0
Ditto	5 0	Do.	25	12 20	7 20	1 12 0
	15 10		105	52 20	...	8 12 0

## Terij Goswara Tin Fasal Bhag Khamar.

Assami	Fasal.	Area.	Weight in maunds (so much).	Half share of the Sarkar.	Average price.
		B. K.	M. s.	M. s.	Rs. A. P.
Para Rampur	Bhadoi	25 15	153 10	76 25	17 13 0
Ditto	Agani (kharif)	4 5	20 0	10 0	3 5 9
Ditto	Rabi	20 0	106 20	53 10	16 11 6
		50 0	279 30	139 35	37 14 3

*Jamabandi Assamian Daran Tin Fasal Bhag Khamar Babat, Para Rampur and Para Muradpur, year 1226.*

Assami.	Name of crop.	Amount.	Para Rampur.	Para Muradpur.
		Rs. A. P.	Rs. A. P.	Rs. A. P.
Narku Gope	{ Bhadoi	...	...	...
	{ Agani (kharif)	11 6 0	8 12 0	2 10 0
	{ Rabi	12 6 0	2 0 6	10 0 0
		22 9 3	11 5 6	11 4 3
		45 15 9	23 1 6	23 14 3
Ganga Ram	{ Bhadoi	...	...	...
	{ Haimanti	5 6 6	5 6 0	0 1 6
	{ Rabi	2 13 3	0 5 8	2 8 0
		16 0 0	2 8 0	13 8 0
		24 3 9	8 2 3	16 1 6

*Terij Jamabandi Saltanah Maya Jamai and Bhagra Khamar from Fasal Bhadoi to Fasal Rabi, mauza Elahipur, with Para Rampur and Para Muradpur, year 1226.*

Assami.	Total land.	Total produce.	Deduct raiyats' share	Balance half share of the Sarkar.	Rate per rupee.	Amount.	Elahi-pur.	Para Ram-pur.	Para Murad-pur.
	B.	M.	M. s.	M. s.	M. s.	Rs. A. P.	Rs. A. P.		
Fasal Bhadoi	...	...	...	...	...	...	...	...	...
Suna	60	165	82 20	82 20	3 0	27 8 0	27 8 0	...	...
Jute	22	65	32 20	32 20	2 10	14 8 6	14 8 6	...	...
	82	230	115 0	115 0	...	42 0 6	42 0 6	...	...

*Jamakharaich Saltqamam. mauza Elahipur, including Para Rampur, and Para Muradpur, pargana Rampur, district Jasaratpur, year 1226, from the beginning to the end.*

Assami.		Rs. A. P.	
Total collection	...	...	353 12 9
	Expenses		
Remittances	...	...	323 8 0 (Details given on the reverse.)
	Miscellaneous.		
Expenses	...	...	30 4 9
			353 12 9

(Ditto.)

#### ENCLOSURE IX.

*Letter from the Members of the Board of Revenue, No. 2199, dated the 11th May 1827, to the Hon'ble Vice-President in Council referred to in paragraph 22 of the Minute.*

No. 2199, dated Calcutta, the 11th May 1827.

From—Members of the Board of Revenue,

To—The Hon'ble the Vice-President in Council.

We have at length the honour to submit, for the consideration of Your Lordship in Council, a report upon the kanungo and patwari sarishtas in the several districts under this Board, as far as the information we have as yet obtained from the several Collectors enables us to ascertain the progress made in compiling the records in those departments.

From the records of this office it appears that on 15th July 1825 the senior Member and the late third Member recorded their opinion that the reports of the Collectors which had then been received did not contain information of a useful tendency, and that the only mode of acquiring a satisfactory insight into the progress hitherto made in re-establishing the kanungo and patwari system, and of ascertaining the degree of practical utility experienced by the revival of those offices, would be to depute one of the Members of the Board to make full enquiries in every district. From those opinions our second Member dissented, recording his minute to that effect, which was forwarded with the letter of the senior and late third Member, though both have since been returned to this office. They are now resubmitted in the appendix marked as per margin.

Board's address to Government dated 15th July 1825, with Mr. Money's Minute.

After a diligent perusal of

\* Vide Collector's replies to Board's circulars, dated 18th May 1821, 29th July 1824, and 15th July 1824, as per accompanying lists marked A, B, C, D.

† Midnapore, Murshidabad, 2½ Parganas. Je-sore, Mymensingh, Burdwan and Dinapur.

all the documents having reference to the kanungo and patwari system noted in the margin,\* we are of opinion that although the replies of the seven Collectors noted in margin† to the queries proposed in Mr. Secretary Mackenzie's letter of the 13th April 1821, and forwarded by us on 15th May of the same year, and the statements of those who answered our two circulars of the 29th July 1823 and 16th July 1824

(the first relative to the jurisdictions of the kanungos, the second communicating the Resolutions of the Government, dated 25th June 1824, with reference to extracts of the despatch from the Hon'ble Court of Directors, dated 18th February 1824), do not contain materials for a succinct report upon the system, which is still in its infancy. Yet many of the reports, particularly those of Mr. Barwell, Mr. Armstrong, Mr. Tulloh, Mr. R. Nisbett, and the Hon'ble Mr. Elliott, will be found to contain information of great importance. We therefore have the honour to submit them in original, together with a separate abstract of their contents for the deliberate consideration of Government.

From the documents in question Your Lordship will collect that to the 15th July 1826, the date of the latest communication of any information worth noticing, the kanungos, except in Midnapore and Burdwan, had effected but little towards the attainment of the main object of their appointment; they had prepared lists of malguzari and lakhiraj estates, parganawari statements of kismats and mauzas, registers of proprietors of partition and of transfers of property in their respective divisions; they assisted in investigating particulars relative to char and other lands liable to assessment, and reported on matters connected with khas mahals, but had made little or no progress in acquiring materials for the compilation of a record of the extent and capabilities of the possessions of the malguzar and lakhiraj proprietors, and none which could afford an insight into the details of village management or into the rights and interests of the agricultural community.

The most intelligent of the Collectors are of opinion that labours of the kanungo establishment when properly directed cannot fail to prove highly advantageous to the State, and will be far from prejudicial to the interests of the agriculturists, but all deplore the repugnance of the zamindars and the lakhirajdars to the measures dictated by Regulation XII of 1817, and the systematic opposition they have experienced throughout.

It is but too apparent that the zamindars and lakhirajdars are so decidedly averse to any arrangements having for their object the acquisition of information regarding the land tenure of the country and the produce of the soil, that they have long systematically opposed every obstacle, legal or illegal, to the attempts of the Revenue officers to obtain any knowledge on the subject. Their most effectual procedure with this view will appear to have been the abolition of the ancient office of village patwari and the substitution of gumashias, creatures of their own, for those servants of the public. On being called on to furnish a list of their patwaris they delayed compliance with the orders or evaded them.

altogether, and when eventually officers of this description have been appointed by them, or by the Collectors, they either did not permit them access to the real records, or refused to pay their allowances, or dismissed them without ceremony. In one district—Burdwan—the Collector reports that, with the view of evading the penalties for a non-compliance with the rules prescribed for the delivery of accounts and the registry of patwaris, purchasers of land have not entered their own names in the register of mutation, but those of persons altogether unconnected with the land.

A very general failure in procuring patwari records has been experienced throughout the country, and the compilation of those records which relate to the extent of proprietary rights, the quality of the soil, the quantity of produce, and the rate of land tax paid by the lower orders of agriculturists, has been delayed in consequence. The officers of the Collectors of Midnapore and Burdwan, Messrs. Barwell, Elliott and Armstrong, appear to have made the greatest progress in this department of their duty, for they have been able to obtain village accounts for a large portion of their districts, notwithstanding the obstacles opposed to them. This partial success is entirely attributable to the strenuous exertions of their Principals, but it is questionable after all whether the sources whence these details of village management have been drawn are sufficiently pure to warrant the adoption of the accounts as authentic records, especially when it is recollected that at present there exist no means of verifying their contents.

Under the provisions of Regulation XII, 1817, the patwaris are responsible for the production and for the authenticity of the papers required by the kanungos, but the patwaris, if any are appointed, are entirely at the mercy of the landholders, who for a long period of years past have placed the whole record of management in the hands of their gumashtas and agents, who are able to provide spurious accounts as well as true ones, and when the interests of their employer, co-extensive as they are with their own, are to be affected by their procedure, no doubt can be entertained as to which of the documents, the true, or the false, they will make over to the patwari to be filed in the kanungo's office. It is scarcely possible that the patwari should be able to swear to the validity of the records which he thus delivers, and if he should be aware of their falsity, it is not very probable that he will avow his knowledge. He knows but too well that he is completely in the power of his task-master, the certain consequences of whose wrath are infinitely more to be dreaded than the remote probability of punishment for perjury. His own fears, combined with the little idea of moral guilt, attached by the Asiatics to the crime, will operate to remove all scruples against attesting the validity of the document by his oath, and as his defence would be that he received it from the gumashtas as a true account, and could not prove that it was otherwise, few law officers will be found who would give a fatwa sentencing him to punishment in the law courts. Those patwaris who may be appointed by the Collectors on the recusancy of the zamindars will not be found in any respect superior to the non-effective men set up to avoid the penalty by the proprietors. Poor, and without influence or support, they are easily corrupted into an acquiescence in the zamindar's arrangement, or deterred from opposing them by the fear of his displeasure. The power of a zamindar in the interior of the country to do mischief to one who has offended him is almost without limits. The people well know this to be the case, and are cautious of exciting it into action. Authentic information in respect to the land tenure, the produce of the soil, and the portion of it which, as representing tax or land rent, is available to the zamindar, is not, in short, to be excepted under the present system from the patwaris. The zamindars will never allow them to give it.

If the motives of the zamindars for withholding the statistical particulars which are so much required were rigidly investigated, they would be found to originate less in their alleged apprehensions that a new assessment of their lands would be the result of their compliance than in their well-grounded fears that any scrutiny into local usages and rights will end, not only in their illegal actions upon the cultivating classes being prevented, and in the rights of these latter being protected, but in eliciting the discussion of the validity of their own titles to exclusive proprietary possessions, which they are aware, are by no means indisputable. This being the case, it is questionable whether, in the event of their being now declared responsible for the fidelity of the accounts and records for which the local officers are dependent on the patwaris, a closer and correcter view of the actual state of things would be thereby ensured. If on the first introduction of the kanungo system, the landholders had been declared responsible for the fidelity of the accounts and papers required, and if any instance of delay and recusancy had been met by a severe and summary punishment, most of the advantages anticipated for the institution of the office of kanungo would in all probability have been realized; but the Regulations did not permit this, and the people were perfectly well aware that the authorities were directed to proceed with the utmost mildness and caution, and being, it should seem, themselves incapable of appreciating instructions of such a tendency, they immediately concluded that the power to enforce them with severity and strictness was wanting, they have acted accordingly.

After a careful consideration of the subject in all its lights and bearings, we beg to submit our opinion for Your Lordship's consideration, that the obstacles opposed by the zamindars and lakhirajdars to the kanungo system have hitherto rendered records of the kanungo office useless as matter of judicial reference; for instead of affording information, they appear better calculated to mislead those who require it; that the advantages realized from the establishment under its present constitution are by no means commensurate with the expense of keeping it up; and that until means are devised for ensuring the authenticity of the documents furnished, whether they relate to accounts, mensuration or raiyatwar assessments, the office of kanungo will mislead instead of giving any useful information.



# RESOLUTION ON THE BOARD'S LAND REVENUE ADMINISTRATION REPORT FOR THE YEAR 1892-93.

## REVENUE DEPARTMENT—LAND REVENUE.

*Darjeeling, the 16th October 1893.*

RESOLUTION No. 1320T—R.

READ—

The Report of the Board of Revenue on the Land Revenue Administration of the Lower Provinces for the year 1892-93.

The report has been submitted by the Hon'ble Mr. Stevens a few days late, but this delay has been satisfactorily explained. Maps have been attached to the Report, showing the survey and settlement operations recently completed, in progress and in contemplation, and an index to these maps has been furnished, as desired by the Lieutenant-Governor in the Resolution on last year's Report.

2. The Lieutenant-Governor has observed with satisfaction the various changes introduced during the year under report in accordance with the instructions issued by Government. The principal among them are—

(a) alteration in the standard percentages for current collections for the different classes of estates as shown below:—

99 per cent. for estates in class I, i.e., permanently-settled estates.  
95 ditto ditto II, i.e., temporarily-settled estates.  
90 ditto ditto III, i.e., estates held direct by Government.

(b) transfer of the administration of the zamindari dāk cess from Magistrates to Collectors, so far as the demands and collections are concerned.

(c) the placing under the collectorate nazir of the establishment for serving revenue processes of all kinds, with the exception of that maintained for the collection of water-rates in the irrigation districts of Cuttack, Midnapore, Patna, Gaya and Shahabad, and the supervision by him of the service of criminal processes, with the exception of warrants of arrest, in all districts.

## COLLECTION OF THE LAND REVENUE.

3. The current demand on account of the land revenue in Bengal for the past five years is shown in the following table:—

CLASS OF ESTATES.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6
I.—Permanently-settled estates ...	Rs. 3,22,90,777	Rs. 3,22,92,924	Rs. 3,22,91,318	Rs. 3,22,47,951	Rs. 3,22,63,793
II.—Temporarily-settled estates and estates leased to farmers.	58,22,328	58,09,904	26,91,601	26,76,096	27,10,912
III.—Estates held direct by Government.			31,84,778	32,98,128	33,97,627
Total ...	3,81,13,105	3,81,02,828	3,81,67,697	3,81,62,175	3,83,72,332

The total exhibits an increased demand of Rs. 2,10,157 in all three classes, mainly due to increases in class III on account of the general settlement of the Western Duars in Jalpaiguri, and resettlements in Angul, in the Kalimpong estate in Darjeeling, in Backergunge, Tippera, and Chittagong.

4. The demands, collections, remissions, and balances for the same five years are exhibited in the following statement:—

YEAR.	DEMAND.			COLLECTIONS.			Remissions.	BALANCES.			Percentage of total collections to total demand (column 7 on column 4).	Percentage of total collections to current demand (column 7 on column 2).	Percentage of current collections on current demand (column 5 on column 2).
	Current.	Arrear.	Total.	Current.	Arrear.	Total.		Current.	Arrear.	Total.			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1888-89	Rs. 3,81,13,105	Rs. 20,44,506	Rs. 4,01,57,671	Rs. 3,54,65,974	Rs. 17,32,244	Rs. 3,71,98,218	Rs. 30,882	Rs. 26,73,265	Rs. 2,84,210	Rs. 29,57,671	92.56	97.53	92.97
1889-90	3,81,02,824	20,20,128	4,01,22,946	3,62,06,507	24,60,255	3,86,66,762	96,349	8,79,808	3,80,917	23,60,785	94.25	101.5	95.02
1890-91	3,81,07,667	22,46,439	4,03,54,106	3,67,38,458	18,52,435	3,85,90,893	43,066	14,30,862	3,54,312	17,85,164	96.47	101.8	96.2
1891-92	3,81,02,177	17,00,912	3,98,72,087	3,69,87,653	13,52,750	3,83,40,403	50,108	11,67,045	3,14,473	14,81,518	96.16	100.46	96.93
1892-93	3,83,72,332	15,04,778	3,98,77,110	3,70,21,35	11,46,319	3,81,68,054	86,556	13,32,707	2,88,733	16,22,500	95.71	99.46	96.46

5. As already noticed, the current demand was Rs. 2,10,157 more than that of the previous year, the current collections were Rs. 24,082 higher, but the percentage of current collections on current demand fell from 96.92 in 1891-92 to 96.48 in 1892-93. The total collections were Rs. 1,72,349 less than in 1891-92. From the figures in columns 9 and 10 of the above statement, it will be seen that the arrear balances showed an improvement and the current balances a falling off at the close of 1892-93. The remissions amounted to Rs. 86,556, of which Rs. 80,071 were granted in estates held direct by Government.

6. The total demand, current and arrear, from estates in class I was Rs. 3,29,07,436, of which Rs. 3,21,26,521 were collected. The percentage of the collections on the demand, after excluding from the demand sums in suspense during the year, and adding to the collections the sums collected but not credited during the year, was 97.86 against 98.41 in the previous year. The current collections fell short of the standard of 99 per cent. in 12 districts, of which, however, six collected more than 98 per cent. Of the six remaining districts, Rs. 1,48,088 and Rs. 1,58,281 respectively were due in Shahabad and Patna, in which the ratios of collections to demand were 88.76 and 90.17. The Lieutenant-Governor desires that the Collectors of those districts and the Collector of Purnea, where the collections amounted to only 89.86 of the current demand, may be asked to furnish full explanations with regard to those balances. The Lieutenant-Governor observes that the collections in Patna and Shahabad were also very bad in the previous year. The explanation offered, that arrears are due to the fact of the last kist falling due on the 28th of March, is one that applies to all districts alike, and had as much force in 1884-85, when the collections in Shahabad amounted to 98.32 of the total demand, current and arrear, as now, when they amount to only 89.66. Neither does the shortness of the rabi harvest appear to the Officiating Lieutenant-Governor to be an adequate excuse for failure to realise the Government revenue in districts like these in which the revenue is only a small fraction of the rent.

The total arrear balance amounted to Rs. 71,057 against Rs. 75,827 in the previous year. Eight districts collected less than 99 per cent. of the arrear demand, but the balances were small in all of them excepting Champaran, where, owing to the tauzi frauds, they amounted to Rs. 62,981. A report showing the result of the enquiries into those frauds, has just been received from the Board, and is under the consideration of this Government. An arrear amounting to Rs. 1,07,134 was due from permanently-settled Wards' Estates, but of this a sum of Rs. 97,776 was realised after the close of the year. The greater part of the arrear was due from the Khagra estate in Purnea, which was recently taken charge of by the Court of Wards, but the amount of Rs. 19,978, which was outstanding from the Tikari estate, might, were it not for discreditable mismanagement, have been paid up within the year.

7. The total demand, current and arrear, from estates in class II was Rs. 29,56,421, of which Rs. 27,23,884 were collected. The percentage of the collections on the demand, after excluding from the demand sums not actually recoverable, and adding to the collections sums realised but not credited during the year, was 93.83 against 92.74 in the previous year.

The following table shows the results of collections in each subdivision of class II estates for the two years 1891-92 and 1892-93 :—

CLASSIFICATION OF ESTATES.	Years.	Percentage of current collections on current demand.	Percentage of arrear collections on arrear demand.	Percentage of total collections on total demand.
1	2	3	4	5
(a) Settled with proprietors ...	{ 1891-92 1892-93	97·06 95·72	90·74 89·96	96·80 95·53
(b) Private estates leased to farmers ...	{ 1891-92 1892-93	70·91 83·74	41·59 73·36	61·31 80·62
(c) Government estates leased to farmers	{ 1891-92 1892-93	81·97 85·70	82·70 77·21	82·12 84·10
Total ...	{ 1891-92 1892-93	93·02 93·21	78·81 80·24	91·64 92·13

As compared with last year there is a falling off in every respect of temporarily-settled estates settled with proprietors—an improvement in private and Government estates leased to farmers.

The current collections reached or exceeded the prescribed standard of 95 per cent. in all classes of temporarily-settled estates in the following districts, viz., Birbhum, Nadia, Rajshahi, Pabna, Balasore, Lohardaga, Singhbhum, and Manbhum. In all other districts there was a failure to collect up to that standard under one or more of the three heads the collections in Government and private estates leased to farmers being generally very bad. As the percentage on the gross assets allowed to farmers for cost of collection is more than the cost of management and remissions taken together in estates managed direct by Government, the Officiating Lieutenant-Governor concurs in the remark made by the Board that this farming system of management has little to recommend it other than the facilities it ought to afford in realising the Government demand, and that failure to realize the lesser net demand in these leased estates with punctuality is inexcusable. His Honour is glad that the Board have called the attention of local officers to the matter.

8. During the year 1892-93 there were altogether 2,281 estates held direct by Government, of which 2,042 were Government estates and 239 private estates managed by Government for various reasons.

The following statement shows the numbers of these estates by divisions, the demands, cost of management, and total collections during the year :—

DIVISION.	GOVERNMENT ESTATES.		PRIVATE ESTATES.		TOTAL.		Cost of management.	Percentage of cost on current demand.	Current collections.	Percentage of current collections on current demand.
	Number	Current demand.	Number.	Current demand.	Number.	Current demand.				
1	2	3	4	5	6	7	8	9	10	11
		Rs.		Rs.		Rs.	Rs.		Rs.	
Burdwan ...	412	66,703	5	2,21,974	417	2,21,737	21,431	7·3	1,69,508	58·1
Presidency ...	207	3,30,357	44	14,004	251	3,44,361	50,868	8·9	2,85,871	83·01
Rajshahi ...	99	5,53,799	34	10,707	133	5,64,506	32,181	5·7	4,90,869	86·9
Dacca ...	601	4,02,345	102	1,21,485	703	5,23,830	20,042	6·5	4,84,778	92·5
Chittagong ...	212	5,89,672	26	12,928	238	6,02,600	55,633	9·2	5,64,309	93·6
Patna ...	179	2,03,151	16	17,372	195	2,20,523	23,581	10·6	1,66,127	75·4
Bhagalpur ...	126	2,73,821	6	12,847	131	2,86,668	8,190	2·8	2,46,542	86·8
Orissa ...	32	3,98,366	5	78,329	37	4,71,692	21,812	4·6	4,39,497	91·05
Chota Nagpur ...	175	74,464	1	17,733	176	92,197	2,420	2·6	89,658	97·5
Total ...	2,042	28,92,037	239	5,04,930	2,281	33,97,027	2,25,167	6·6	29,39,758	86·5

## Estates held direct by Government.

			Rs.
* Current	...	...	33,97,627
Arrear	...	...	6,15,626
		Total	40,13,253
Deduct amount included in the demand,			
the recovery of which was in suspense	...		54,657
		Total	39,58,596
			Rs.
† Current	...	...	29,39,758
Arrear	...	...	3,77,891
		Total	33,17,649
Add collections made in the year, but not			
credited in the accounts of the year	...		62,753
		Total	33,80,402

9. After excluding demands not due during the year, and including collections realized but not credited, the net demand from estates in class III was Rs. 39,58,596,\* and the collections Rs. 33,80,402,† so that the percentage of total collection on total demand was 85·39 as against 84·10 in Government estates leased to farmers. The following statement compares the percentage of actual recorded collections with those of the previous year in each sub-division of this class:—

SUB-CLASS.	Years.	Percentage of current collections on current demand.	Percentage of arrear collections on arrear demand.	Percentage of total collections on total demand.
1	2	3	4	5
(a) Managed for proprietors ... {	1891-92	70·38	68·05	69·50
	1892-93	72·64	50·	65·25
(b) Owned by Government ... {	1891-92	90·47	73·08	87·99
	1892-93	88·94	68·87	86·66
Total ... {	1891-92	87·24	71·01	84·14
	1892-93	86·52	61·38	82·66

Compared with last year, these figures show an improvement in current collections in estates managed for proprietors, and a falling off in the arrear collections in those estates, and in both current and arrear collections in Government estates leased to farmers.

In 15 districts the standard of 90 per cent. for current collections was reached or exceeded under both sub-classes (a) and (b), and in eight other districts under one or other of the two sub-classes.

In Midnapore both current and arrear balances were heavy, as in last year. They were as follows:—

			Rs.
Current balances	...	Sub-class (a)	1,03,326
	...	Ditto (b)	12,415
Arrear ditto	...	Ditto (a)	83,580
	...	Ditto (b)	3,728

The largest balances were as usual due from estates Jalamutha, Majnamutha, Bhawani chak, and Jalamutha Jalpai in Midnapore. As regards the difficulties experienced in realising rents in the khas mahals of Contai, the Board quote the Subdivisional Officer, who writes thus:—

“Certificates were filed on requisitions prepared by tahsildars on reference to the jamabandi papers. In the majority of these cases it is found that the tenant whose name was originally recorded in the zamindari sarishta and against whom a certificate is filed has mortgaged a portion of his holding, sold another portion, which again the vendor has mortgaged to a third party, and so on. Thus a holding which originally stood in the name of one tenant is now found to be split up and in the possession of a number of persons whose names cannot of course be ascertained without repeated enquiries. This necessarily takes a long time and proves very harassing.”

The Board add—

“This affords a forcible illustration of the difficulties and inconveniences that arise, looking at the matter from the landlord's point of view, from failure to keep the settlement records

corrected up to date so as to represent the facts of the present day. Here, though the landlord has at his disposal the weapon of the certificate procedure, yet the procedure cannot be enforced, because annual records of mutations have not been made. In order to obviate the difficulties which have arisen in the way of enforcing certificates, the Commissioner has, after consultation with the Legal Remembrancer and with the Board's approval, issued instructions to sue tenants in the Civil Court instead of having recourse to the certificate procedure."

In Jalpaiguri the large current balance of Rs. 63,390 is accounted for by the fact that the rent-roll of the recent settlement, which yielded a large increase of revenue, could not be got ready until the 14th February; but the Lieutenant-Governor observes with pleasure that the increased demand due to resettlement was realised without difficulty or opposition after the close of the year. It is also noticed with satisfaction that in Angul, which was recently resettled, the collections amounted to 99·72 per cent. of the current demand.

10. The Board submit a separate report on the road and public works cess operations. The statistics for the last quinquennial period are shown in the following statement:—

YEAR.	DEMANDS.			Collections.	Remissions.	Balances.	Percentage of balances on gross demand.
	Current.	Arrear.	Total.				
1	2	3	4	5	6	7	8
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1888-89 ..	76,19,909	17,20,682	93,40,591	74,86,777	20,025	17,98,042	19·2
1889-90 ...	76,60,539	18,04,134	94,64,673	77,54,634	76,885	16,58,728	17·5
1890-91 ...	78,38,927	18,35,056	96,73,983	76,84,012	12,661	19,33,865	19·9
1891-92 ...	79,67,333	19,44,815	99,12,548	80,61,032	26,453	18,35,464	18·51
1892-93 ..	80,91,013	16,58,356	97,49,371	82,76,738	13,207	14,80,741	15·24

The total collections amounted to Rs. 82,76,738, or 84·8 per cent. on the gross demand. There was a satisfactory improvement in respect of both collections and balances, which the Lieutenant-Governor hopes will grow in future years.

11. The system of payment of revenue and cesses by money-order continues to grow in popularity and to work satisfactorily. The Lieutenant-Governor is awaiting a report from the Board on the question of amending the form of revenue money-orders, and on the other questions raised in Mr. Macpherson's Tauzi Report. His Honour will consult the Postmaster-General, Bengal, on the suggestion made by the Collector of Murshidabad that the postmasters of branch and sub-post-offices should be directed to assist illiterate remitters in correctly filling up the forms.

The following table shows the progress of these transactions during the last six years:—

YEAR.	Number.	Amount of revenue paid.	Average value of each order.
		Rs.	Rs. A.
1887-88 ...	47,248	2,07,156	4 6
1888-89 ...	92,402	6,60,800	7 2
1889-90 ...	139,535	11,11,353	7 15
1890-91 ...	160,892	15,64,268	9 11
1891-92 ...	167,229	14,68,037	8 12
1892-93 ...	183,403	16,35,409	8 14

These figures show a steady increase both in the number of orders and in the amount remitted.

The payment of rent by money-orders was authorised from 1st July 1891 in all districts in which the Bengal Tenancy Act is in force. The following table shows the working of the system in the Divisions in which it was in force during the years 1891-92 and 1892-93:—

DIVISIONS.			Number of money-orders issued for rent.	Amount	Number of such orders refused.	Amount.
1			2	3	4	5
				Rs.		Rs.
Burdwan	...	{ 1892-93	12,645	1,15,270	4,360	28,655
		{ 1891-92	12,917	1,17,682	4,775	32,858
Presidency	...	{ 1892-93	5,294	64,896	2,113	22,848
		{ 1891-92	5,862	95,537	2,372	25,773
Rajshahi	...	{ 1892-93	5,761	1,26,196	2,833	33,026
		{ 1891-92	6,832	1,36,021	1,757	28,734
Dacca	...	{ 1892-93	3,778	40,655	1,487	12,346
		{ 1891-92	3,798	48,787	1,406	12,398
Chittagong	...	{ 1892-93	9,010	58,244	1,439	17,542
		{ 1891-92	3,715	44,368	699	10,849
Patna	...	{ 1892-93	4,956	82,157	1,023	9,404
		{ 1891-92	3,369	38,217	1,401	11,169
Bhagalpur	...	{ 1892-93	1,258	32,451	478	8,475
		{ 1891-92	1,351	27,207	535	7,372
Total for 1892-93			42,702	5,19,669	13,783	1,32,196
Total for 1891-92			37,944	5,07,819	12,544	1,27,153

The figures given for the first four Divisions are for two full years, but for the remaining three Divisions the figures for 1891-92 are for nine months only. There was a falling off both in the number of money-orders issued and in the amount covered by them in the first four Divisions (in which only the data for comparison are available), due, it is said, to the fact that while the raiyats take advantage of the procedure only when their relations with their landlords are strained, or when there is a dispute as to the amount of the rent, the zamindars avail themselves of every plausible or technical excuse for refusing the money-orders, in order, as the Judge of Birbhum says, to be in a position to rush into Court with a plaint the first day of the next quarter. In this connexion the Board make the following observation—

“According to the provisions of section 58(3) of the Tenancy Act, a landlord who contumaciously refuses to give a receipt for rent duly remitted by money-order (which is a legal tender) and to prepare and retain a counterfoil or copy of the receipt or statement of account with the deliberate intent of harassing his raiyats by rushing into Court with suits on the first day of the next quarter is liable to fine.”

This point will be further considered by Government.

12. During the year 960 whole estates and 395 shares, bearing an aggregate revenue of Rs. 1,38,912, were sold, as compared with 1,368 estates and shares bearing a revenue of Rs. 1,52,802 in the preceding year. The Sale Law appears to have been administered with moderation. The percentage of defaults on estates and shares is highest in Saran, being 14·5, next comes Muzaffarpur with 12·1, then Mymensingh with 9·9, then Patna with 5·7, and last Chittagong with 3·4. The percentage of sales on defaults is highest in Chittagong, being 26·7, where it is observed the percentages of collections on demands are in every class of estates above the standard, while they are lowest in Shahabad, where the collections are worst. The facts seem to afford support to the opinion expressed in the Lieutenant-Governor's Resolution on the Board's Report of 1890-91, that the policy of leniency may be carried too far where Government revenue has not been paid with punctuality. In only two districts (Bankura and the 24-Parganas) were the orders, enjoining that the sales for a kist should be effected

before the date for the next kist comes round, not carried out. There were great delays in holding sales for arrears in Patna, Saran, Bhagalpur and Cuttack.

After the close of the year under report, revised draft Bills to amend the existing Revenue Sale Law and Public Demands Recovery Act were prepared and submitted to the Government of India, who have desired that the Bills be introduced in the Bengal Legislative Council.

13. The following statement shows the number of certificate cases instituted and disposed of during the year under the Working of the Public Demands Recovery Act VII (B.C.) of 1880. different classes of demands:—

1	Number pending from last year.	Number filed during the year.	Total.	Disposed of during the year.	PENDING—		
					More than six months.	Less than six months.	Total.
2	3	4	5	6	7	8	
Demands of all kinds under section 5 ... ..	419	1,650	2,069	1,662	97	370	467
Arrears of rent due to Government, clause 6, section 7.	4,577	16,904	21,481	15,121	3,626	2,754	6,380
Embankment dues, section 50, Act VI (B.C.) of 1873.	1,392	6,853	8,245	5,755	216	2,274	2,490
Water-rates, Act III (B.C.) of 1878 ... ..	5,020	9,298	14,318	13,498	125	1,225	1,350
Cesses Act, IX (B.C.) of 1880 ... ..	50,114	78,952	129,066	80,067	15,569	24,194	39,763
Demands of the Court of Wards, clause 7, section 7.	10,064	9,906	19,970	12,033	6,753	1,184	7,937
All other demands under section 7 ... ..	10,793	23,079	33,872	21,006	3,942	8,024	11,966
Total ... ..	83,283	146,572	229,855	154,523	30,328	40,065	70,393
Last year ... ..		159,710	.....	154,225	28,314	55,030	84,000

The figures show a satisfactory decrease of 13,128 in the number of certificates filed, as compared with the number filed in the previous year; and the Lieutenant-Governor is glad to see that the total number of pending cases also decreased. Institutions in the water-rate collection department during the last three years were as follows:—

	FILED IN—		
	1890-91.	1891-92.	1892-93.
Districts of the Orissa Division	13,596	8,634	7,991
Do. of the Patna ..	4,908	3,167	2,914
Do. of the Burdwan ..	7,739	3,427	1,237

During the year water-rate certificates in the Orissa Division were transferred from the Collector's Office to that of the Special Deputy Collector in charge of Canal Revenue.

The number of certificates filed for the recovery of cesses was 78,952 against 87,507 in the previous year, and certificates for the realisation of rent due to Government decreased from 18,304 to 16,904. A similar decrease also occurred in the number of certificates filed for the recovery of the demands of the Court of Wards. The difficulty experienced in enforcing certificates for recovery of khas mahal rents in the Contai subdivision for want of annual records of mutations has been already noticed.

14. The number of cases in which actual sale was had recourse to rose from 3,552 to 6,380, the cases in which demands were paid upon service of notice increased from 48,199 to 52,047, while the number of persons imprisoned, who were eventually released without payment of the debt, decreased from 71 to 44. The number of persons imprisoned for not paying Government demands was 20 against 45 in the previous year.

#### Administration of the Land Revenue.

15. The principles and rules affecting the funds for the management, improvement and protection of estates under the Estates under direct management. management of Government were explained in paragraph 15 of this Government's Resolution for the year 1891-92. Of the 12 per cent. deducted from the collections from those estates—

(a) 1 per cent. is devoted to purposes of education.

(b) 1½ per cent. to communications.

(c) 2 per cent. to sanitary improvements.

(d)  $7\frac{1}{2}$  per cent. to (1) management proper, and (2) miscellaneous improvements.

In addition to the above fund—

(e) A separate grant (known as the Agricultural Public Works grant) is made yearly by Government for such works as irrigation, drainage, or embankments necessary for the increase or maintenance of the land revenue from Government or temporarily-settled estates.

From the proceeds of head (a) primary schools are maintained in Government estates; but the  $1\frac{1}{2}$  per cent. contribution for improvement of communications to and within these estates is everywhere amalgamated with the general District Road Fund.

The allotments and expenditure under the heads (c), (d), and (e) during the year under report are shown below :—

	Allotment. Rs.	Expenditure. Rs.
(c) 2 per cent. for sanitary improvements	3,51,158	46,087
(d) The $7\frac{1}{2}$ per cent. for { (1) Management proper.		(1) 2,25,167
{ (2) Miscellaneous improvements.		(2) 79,042
(e) Agricultural Public Works grant	80,000	3,50,296
Total	4,31,158	4,13,797

It will be seen that the expenditure on agricultural public works fell short of the allotment by Rs. 16,499. As remarked by the Board, the local officers should see that the allotments made are fully utilized, and that no portion is allowed to lapse. A manager of a Government or Ward's estate, who is at all fit for his post ought to have no difficulty in suggesting and carrying out suitable works of improvement so far as funds will permit. He may have difficulty in obtaining funds, but failure to spend what is provided usefully and well can only arise from inefficiency or want of interest in his work. The Officiating Lieutenant-Governor is glad to observe that successful efforts have been made to introduce new staples in the Government estates in Jalpaiguri, and will be glad to learn whether tube-wells can be utilised for the purpose of obtaining pure drinking-water in Government estates, as suggested by Mr. Oldham.

16. Of the nine Commissioners, Mr. Forbes inspected 8, Mr. Nolan 4, Mr. Cooke 3, Mr. Oldham 2 khas tahsil offices, and Messrs. Power, Beames, Luttmann-Johnson, and Greer (when officiating as Commissioner of Chittagong) inspected one khas tahsil office each. No inspection was made by the Commissioners of Bhagalpur and Chota Nagpur. Of the Collectors, Messrs. Slack, Macpherson, Savage, Growse, Hopkins, Fiddian, and N. K. Bose made the largest number of inspections. Of the Subdivisional Officers, Mr. Syud Nurul Huda, Subdivisional Officer of Nawada in Gaya, Babu Surjya Kumar Sen, Subdivisional Officer of Supaul in Bhagalpur, and Mr. M. H. W. Mackenzie, Subdivisional Officer of Alipore in Jalpaiguri, made the largest number of inspections. The Lieutenant-Governor agrees with the Board that these inspections are very important, and thinks that as the chief safeguard against the occurrence of malpractices and the misappropriation by the subordinate collecting agency of sums collected from the raiyats is in the examination by Managers, Collectors, and Assistant Collectors of the raiyats' receipts, and in comparison of the amounts entered in them with those credited in the tahsil books, all Collectors should give attention to these matters in the course of their tours. Since the close of the year, instructions have been issued to the Board to take security from all officials who handle public money, including managers or tahsildars in khas mahals, and the Board have been requested to submit for the approval of Government



draft rules to give effect to them. The condition of the raiyats in Government estates is said to be generally better than that of their neighbours under private zamindars. The Officiating Lieutenant-Governor hopes that this is so.

17. As most of the principal surveys and settlements in progress in Bengal are reviewed by Government in a separate Resolution, they are only referred to briefly in this Resolution. The survey of the town of Calcutta under Colonel W. H. Wilkins was continued during the year. The survey work proper had been finished, and it remained to complete the maps after the decision of all boundaries and title disputes. It is hoped that the whole work may be finished by April 1894.

During the year the Director of the Department of Land Records and Agriculture was relieved generally of supervision of smaller settlements under the Bengal Tenancy Act, and it has been decided that as a general rule such settlements should be carried out by District Officers in direct subordination to the Commissioner of the Division. With a view to ensure correct procedure and steady progress in regard to this class of work, the Board have been requested to prepare a plain manual for the guidance of District Officers. The following table shows the progress made in the settlements of Government and temporarily-settled and private estates under the control of the Director of Land Records during the year:—

*Government and Temporarily-settled Estates.*

Name of estate or tenet under settlement.	Estimated area in square miles.	Total number of villages.	Area surveyed during the year under report.	Area surveyed up to the end of the year under report.	Number of villages of which attestation has been completed.	Number of villages of which the final records of rights have been published under section 105 (2) of the Tenancy Act.	Cost during the year.
1	2	3	4	5	6	7	8
All temporarily settled estates and four permanently settled estates in Cuttack	2,325	4,579	Sq. miles. 1,316	Sq. miles. 2,206	2,133	...	Rs. 5,53,868
All temporarily settled estates in Puri	985.91	1,957	...	985.90	1,940	...	...
Ditto      ditto      in Balasore	1,697	2,580	914	914	...	...	...
Chittagong district	2,408	1,080	530.62	1,832.2	611	33	2,40,616
Western Duars in Jalpaiguri	766.93	10,503	...	766.93	10,563 jotes	Records for 4,978 jotes published under Act XVI of 1889.	45,369
Pataspur estates in Midnapur	55.82	92	14.78	14.78	...	...	5,785
Jampur Government estates in Bogra	44.1	...	...	...	...	14	5,606
17 Char estates in Backergunge	82.79	17	...	82.73	17	...	631
Char Gazi and Fakura in Noakhali	16.7	2	...	16.7	1	...	...
Total temporarily-settled tracts and Government estates.	8,473.18	21,270	2,775.40	6,810.56	15,296	5,027	8,40,942

*Private Estates excluding Wards' Estates.*

				Sq. miles			
Mollarpur in Birbhum	36.76	46	...	36.76	45	...	8,270
Dianatalas in Backergunge	17	32	...	15.59	10	...	6,604
Pargana Roshnabad in Tippera	556	1,418	...	176	...	...	68,343
Puthana in Tippera	5	11	...	...	...	...	...
North Itahar (Muzaffarpur and Champaran)	1,000	1,260	...	534.91	5	...	1,85,046
Buksol and other villages in Champaran	6.77	5	...	6.77	4	...	2,646
Sonthal Parganas (29 private estates)	389	539	...	288.90	...	...	31,718
Total Private Estates	2,008.53	3,310	...	1,058.90	180	...	3,04,637

The total area of Government and temporarily-settled estates professionally surveyed was 2,775 square miles, and the total expenditure on survey Rs. 4,45,765, or 4 annas per acre.

The following table shows the progress made in smaller settlements under the Tenancy Act under the supervision of the Commissioners of Divisions during the year:—

	Estimated area in acres.	Total number of villages.	Area surveyed during the year.	Total area surveyed up to the end of the year.	Number of villages in which record of rights has been completed.	Cost during the year.
1	2	3	4	5	6	7
Government estates in the districts of Midnapore, Palna, Dacca, Faridpur, Tippera and Shahabad.	A. R. P. 42,297 0 0	148	A. R. P. 8,395 0 0	A. R. P. 37,250 0 0	133	Rs. A. P. 4,052 0 0
Private estates (excluding Wards' Estates) in the districts of Bankura, Midnapore, 24 Parganas, Jessore, Noam, Murshidabad, Bangour, Dacca, Faridpur, Backergunge, Mymensingh, Noakhali and Champaran.	92,474 3 23	283	58,411 2 11	63,777 1 23	112	52,735 11 8

The Officiating Lieutenant-Governor notices with pleasure that the increased revenue resulting from the settlements of Angul, Banki and Jalpaiguri, has been realised without friction or difficulty, but regrets to notice that the work of attestation done in Orissa during the year was so imperfect. Now that the talukdars of Chittagong have been authoritatively declared to be tenure-holders, His Honour hopes that the settlement of Ramu in Chittagong will be completed without further delay.

18. The following statement exhibits the number of interests registered under initial registration, and the number of applications for mutation filed during the year:—

Land Registration.

1	2	3			4	5	6
DIVISIONS.	Total number of interests registered under initial registration (section 38).	NUMBER OF APPLICATIONS UNDER SECTION 42 FILED DURING THE YEAR:—			Percentage of column 3 (c) in column 2.	Percentage during 1891-92.	Percentage during 1890-91.
		(a) On account of succession by inheritance, whether under will or otherwise.	(b) On account of succession by purchase, gift, or otherwise.	(c) Total.			
Burdwan ... ..	50,044	1,620	1,637	3,257	6.5	6.7	6.9
Presidency ... ..	62,926	1,905	1,350	3,255	5.2	5.1	4.3
Rajshahi ... ..	26,925	1,155	733	1,888	7.0	7.2	6.3
Dacca ... ..	49,431	3,899	4,334	8,233	16.7	17.7	17.7
Chittagong ... ..	184,565	3,652	4,009	7,661	4.1	6.0	7.3
Patna ... ..	287,642	9,505	8,497	18,002	6.4	6.1	6.2
Bhagalpur ... ..	96,614	1,595	2,137	3,732	3.8	3.9	3.1
Orissa ... ..	160,614	2,998	3,832	6,830	4.3	3.4	3.3
Chota Nagpur ... ..	2,356	64	19	83	3.5	3.4	2.9
Total	971,200	26,159	27,048	53,207	5.5	5.7	5.7
Total for 1891-92 ...	971,150	28,815	27,478	56,293			

The percentage of mutations, or initial registrations, is lower than in previous years. The total number of cases disposed of was 59,037, against 61,425 during 1891-92.

19. The following statement gives particulars of the number of cases instituted, disposed of, and pending in the three heaviest Divisions—Patna, Bhagalpur, and Dacca—the partition work elsewhere being little more than nominal:—

DIVISION.	Pending at close of—		Instituted during—		Total.		Disposed of during—		Pending at close of—	
	1890-91.	1891-92.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
1	2	3	4	5	6	7	8	9	10	11
Patna ... ..	1,690	1,679	446	338	2,126	2,017	447	472	1,679	1,546
Bhagalpur ... ..	127	119	41	39	168	158	49	67	119	101
Dacca ... ..	452	463	136	92	588	555	125	114	403	441

There was an improvement in the number of cases disposed of in the Patna and Bhagalpur Divisions, but the number disposed of in the Dacca Division was less than in the previous year. The Collectors have been directed to utilise the survey records in partition proceedings, and to bear in mind that whenever a record of rights and settlement of rents have been made under the Tenancy Act, the rentals recorded are binding on all parties so long as they are in force, and must be accepted as the basis of partition. In districts where a notification has issued proclaiming any area for survey, no measurement has been allowed other than the survey measurement. This order applied to the districts of Muzaffarpur, Darbhanga, Saran, Champaran, Cuttack, Puri, Balasore, and Chittagong.

With a view to diminish the great delays which now characterise partition proceedings, and to put a check to the growing number of cases, a draft Bill for the amendment of the existing law has been prepared, and the Board have been requested to circulate it for the opinions of all Divisional and District Officers. In the meantime the Board have issued certain instructions for the guidance of all officers employed on partitions, which it is believed will to some extent expedite work.

20. The following table shows the quantity of land acquired during the year under Act X of 1870, and the cost of acquisition, as well as the department for which it was acquired:—

For whom acquired.	Area of land acquired.	Abatement of Government revenue.	Cost of acquisition.
	A. R. P.	Rs. A. P.	Rs. A. P.
Government ...	466 3 1	265 8 5	1,57,981 11 10
Irrigation ...	790 0 9	391 14 7	1,13,187 10 10
Municipalities ...	84 2 28	21 14 8	1,81,615 0 4
Railways ...	4,068 3 11	787 13 2	10,60,173 0 1
District Boards ...	593 3 34	7 2 1	56,469 15 4
Chaukidars' jagir lands ...	18 1 33	0 0 3	1,868 15 4
GRAND TOTAL ...	6,022 2 36	1,474 5 2	15,71,096 5 9

Of the lands acquired for Government, the most important projects were those for the extension of Police Court premises in Calcutta, extension of Lebong cantonment land at Darjeeling, and the Bengal Veterinary Institution at Belgatchia.

The great differences in the cost per acre paid for land acquired for public purposes, in different districts, and in different parts of the same district, as shown in Appendix No. XIV, suggest the conclusion that sufficient check is not exercised over expenditure incurred in acquisition of land. As land-owners cannot recover a higher rent for land than that entered in the cess papers, unless they can show that the rents have been lawfully enhanced since the returns were filed, Deputy Collectors employed in the acquisition of land have been directed by the Board always to refer to these papers in determining the rental to be taken as the basis of their calculations for awarding compensation. Sir Antony MacDonnell approves of these instructions, and hopes that the Board will see they are complied with.

The revised Bill for the amendment of the Land Acquisition Act X of 1870 is now pending in the Legislative Council of the Government of India.

21. In Orissa the majority of the kanungos and the patwaris continued to be employed on settlement work. After consulting the Hon'ble the Advocate-General, the Officiating Lieutenant-Governor at first decided to enforce the registration of Bihar patwaris in the Collectors' offices, so as to bring them under official control, before utilising them for the purposes of the Bihar survey. But it has now been decided to abandon the project of employing the patwaris of Bihar in the survey operations for reasons which were given in the papers published in the *Calcutta Gazette* of 15th August last, as it was found that the landlords preferred that a more highly paid agency should be employed both in the preparation and in the maintenance of the record. Sir Antony MacDonnell has lately submitted to the Government of India a draft Bill for establishing such an agency for the maintenance of records of rights made under Chapter X of the Tenancy Act.

22. Out of the sum of Rs. 1,32,400 allotted for advances under the Land Improvement Loans Act, XIX of 1883, Rs. 70,730 only were disbursed, and of this Rs. 24,050 were advanced in Gaya for village embankments and minor irrigation works. With regard to the very large difference between the sums allotted and those actually given out by Collectors, these officers generally explain that failure to expend the allotments was due to (1) insufficient security furnished by the applicants, (2) want of adequate establishment to make the enquiries, and (3) the fact that many of the applications having been received towards the end of the year, the enquiries connected with them could not be completed within the year. The Lieutenant-Governor agrees with the Board in thinking that more might have been done than was done during the year, and that so many applications should not have been left undisposed of at the end of it.

The following were the demands, collections and balances on account of advances under the Land Improvement Loans Act during the year:—

Outstand- ing advances.	Demand (principal + interest) fall- ing due during the year.	Collections (principal + interest) during the year.	Percentage of collection on demand.	Remission	Balance at close of the year.
Rs. 2,75,487	Rs 88,594	Rs 57,967	65.4	Rs 6,978	Rs 23,649

The sum of Rs. 1,93,070 was advanced under the Agriculturists' Loans Act during the year. Owing to the scarcity prevailing in parts of the Patna Division at the beginning of the year under report, Rs. 77,750 were advanced to the cultivators in the several districts of that Division, except Patna and Champaran. Of this sum, Rs. 25,616 were distributed in Muzaffarpur and Rs. 33,012 in Darbhanga. In the Bhagalpur Division Rs. 69,961 were issued in the districts of Monghyr, Bhagalpur, Purnea, and Sonthal Parganas to raiyats whose crops had suffered from deficient rainfall. In Puri Rs. 12,537 were advanced, as the raiyats, especially those of the Government Estate Kodha, because of indifferent crops in 1891-92, were in want of money for the purchase of seed.

The demands, collections and balances on account of advances under the Agriculturists' Loans Act during the year were as follows:—

Outstand- ing advances.	Demand (principal + interest) fall- ing due during the year	Collections (principal + interest) during the year	Percentage of collection on demand.	Remission.	Balance at close of the year.
Rs. 4,66,731	Rs. 2,24,248	Rs 1,46,480	65.3	Rs 319	Rs. 77,450

#### RENT.

23. The relations between landlords and their tenants have, with the exceptions noted below, been on the whole fairly satisfactory throughout the Province, the exceptions indicated in some districts the existence of ill-feeling in particular localities. The relations between Messrs. Watson and Company and their raiyats in taraf Paschim and pargana Silda in the Midnapore district are still unsatisfactory, owing, it is said, to the straining by the firm, to the utmost, of their legal rights against any one who refuses to grow indigo. The Collector is trying to make an amicable arrangement by securing for the raiyats free pasturage in certain demarcated areas, and the right of taking spontaneous forest products. The Lieutenant-Governor regrets to learn that the relations between Raja Peary Mohun Mukerji and his tenants in the Ulubaria subdivision of the Hooghly district were also somewhat strained.

In the Khulna district the practice of one landlord buying up the rights of the under-tenants of another is said to be a fruitful source of ill-feeling and the cause of serious riots. In Faridpur the naib of a zamindar was murdered by some of the raiyats. In Backergunge the relations of landlord and tenant are reported to be strained in one-fourth of the district, while in Mymensingh their relations are reported to be those of sullen discontent. In the Patna Division disputes arising from enhancements of rent on the one side, and withholding of rents on the other, culminated in breaches of the peace in the Bihar subdivision of Patna, in Bhojpur in Shahabad, in Sitamarhi in Muzaffarpur, in the Madhubani subdivision of Darbhanga, and in Sewan.

The Board observe that—

“Proceedings under chapter X of the Tenancy Act have settled protracted and obstinate disputes in Dubalhati, in the Sujamutha estates of the Burdwan Raj, in the Srinagar-Banaili estates of Bhagalpur, in the Dakhin Shahazpur estates of Backergunge, in the Mollapur estate in Birbhum, and may be expected to have similar results wherever they are conducted with discretion and in conformity with the law.”

24. It is reported that in many districts the tenants have not yet become familiar with the provisions of the Tenancy Act made in their favour. Sections 3 to 5, 19 to 38, 41 to 49, 53 to 75, 80, Chapter X, and sections 189 to 191, have been extended to the Orissa Division. The extension of the Act to the Chota Nagpur Division is still under consideration.

The following statement shows the operation in the various Divisions of some of the most important sections of the Act:—

1	2			3	4	5	6	7	8	9	10	11	12
DIVISIONS	TRANSFER OF TENURES.			Commutation of rent payable in kind section 40.	Appraisement or division of produce where rent is paid in kind, sections 63 and 70.	Regulation of improvements, section 80.	Certificates of Collectors as to acquisition of land for building or other purposes, section 84.	Notices of resumption of land by landlords, section 87 (2).	Written permission to landlords to measure land, section 90.	Applications by Collector for appointment of common managers, section 93.	Applications made for the survey and record of rights (under Chapter X).	Applications made for survey and record of proprietors' private lands (under Chapter XI).	Local enquiries held by order of a Court, section 156.
	(a) Voluntary section 12 (1).	(b) By sale in execution of decrees sections 13 (2) and 14.	(c) By succession, section 15.										
Burdwan	4,759	141	72	20	5	87		14			12	1	1
Presidency	8,525	240	107	...	3	18		5			10		
Rajshahi	695	77	5			12		5			4		1
Dacca	2,427	945	133	...		48	...	5	1		18		18
Chittagong	2,592	616	273			30		5		...	4		51
Patna	1,475	0		23	306	91		889			1		8
Bhagalpur	1,266	87	1	1	73	14		108			1	3	2
Total for 1892-93	21,789	2,116	680	44	388	294		1,094	1	...	54	4	81
Do. for 1891-92	26,104	2,451	454	45	324	352		158			52	1	84

Fifty-four applications were made for survey and settlement under Chapter X of the Act, of which 6 related to Government estates, 4 to Wards' estates, and 44 to private estates. With regard to the operation of the provisions of the Act relating to giving of receipts, the Commissioner of Patna observes—

“I have frequently brought to notice the almost universal disregard by Civil Courts of the provisions of sections 56, 57, and 58. In no district that I have served in have I ever known of a Civil Court reporting a landlord for punishment under the third clause of the last-mentioned section, although the offence referred to constantly comes to the notice of every rent-suit Munsif in Bengal.”

There was a remarkable increase in the number of notices of re-entry under section 87 (2) in the Champaran and Darbhanga districts, due, it is said, to the landlords seeing the advantage of complying with the law in this respect. But though, as the Board remark, this may be a sufficient explanation from the landlord's point of view, it is not a satisfactory explanation of the fact that 667 raiyats in Champaran and 116 in Darbhanga had so little interest in their holdings that they voluntarily abandoned them.

Rent suits. 25. The number of suits before Revenue Courts under the rent laws for the years 1891-92 and 1892-93 is shown below:—

DISTRICTS.	Number of cases instituted.		Increase.	Decrease.
	1891-92.	1892-93.		
1	2	3	4	5
Darjeeling ...	20	21	1	...
Jalpaiguri ...	4,050	4,690	640	.....
Cuttack ...	2,952	2,674	.....	278
Puri ...	2,035	2,112	77	.....
Balasore ...	2,207	2,172	.....	35
Angul ...	.....	.....	...	.....
Hazaribagh ...	2,333	2,974	641	.....
Lohardaga ...	9,937	8,627	.....	1,310
Singbhum ...	458	395	.....	63
Manbhum ...	6,605	6,321	.....	284
Palamau ...	...	172	172	.....
Total ..	30,597	30,158	1,531	1,970

In the Chota Nagpur Division the necessity for promptly disposing of rent suits and avoiding frequent adjournments has been impressed on the district officers and their subordinates. Only 183 applications for distraint were made in all of the districts in which the Bengal Tenancy Act is not in force taken together, as against 2,877 of the districts to which it has been extended. As the Board observe, the comparative fewness of applications in the former districts gives ground for suspicion that in them the system of "roking" of crops, or illegal distraint, is still had recourse to.

## MISCELLANEOUS.

26. There were 367,067 miscellaneous cases instituted against 365,795, and 390,450 disposed of against 355,901 in the previous year. The form of Collectors' business statement was revised and improved during the year.

27. As stated in paragraph 2 of this Resolution, the working of the Zamindari Dák Cess Act, so far as demand and collections of zamindari dák cess are concerned, has been transferred from the Magistrate to the Collector subject to the control of the Board. The rates of cess and the dates of payments of the half-yearly instalments have been fixed for the several districts for the next five years, commencing from 1st January 1893.

Out of 169,924 estates borne on the revenue rolls of the several districts, only 75,229, or 44·2 per cent., are assessed to zamindari dák cess as having a revenue of Rs. 50 and above. The total receipts of the year were Rs. 3,73,744, as noted below:—

Zamindari dák cess ...	Rs.
Fines imposed under Act VIII (B.O.) of 1862 ...	3,39,568
Process fees ...	27,239
...	6,937
Total ...	3,73,744

The total cost of the zamindari dák was as follows:—

	Rs.
Cost of head-quarters establishment ... ..	52,139
Cost of process-serving and other collecting establishment ... ..	26,267
Wages of dák-runners and other expenses ... ..	2,77,452
Total ... ..	3,55,858.

28. The Board think it needless and invidious to attempt to distinguish between the respective merits and services of Merits of officers Commissioners, one and all of whom have given them able and willing assistance. The paragraphs relating to the conduct of officers will be communicated to the Appointment Department. The thanks of Government are due to Mr. Stevens for his able and efficient administration of the Land Revenue Department during the year, and Sir Antony MacDonnell desires to tender to both Members of the Board his hearty acknowledgments for the willing co-operation and valuable assistance which they have given him since he assumed charge of the administration of these Provinces.

By order of the Lieutenant-Governor of Bengal,

M. FINUCANE,

*Offg. Secretary to the Government of Bengal.*

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 21st October, 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL.</b>			
BURDWAN DIV.	1 Burdwan Oct. 21, '93	2.00	Weather—seasonable. Prospects continue good. <i>Aus</i> being cut. Fodder and water sufficient. Prices of common rice :— <div style="display: flex; justify-content: space-between; align-items: center;"> <div> <i>Srs.</i>  Burdwan ... 10 to 13  Kalna ... 9 to 13  Katwa ... 12½  Raniganj ... 12½ </div> <div style="font-size: 3em; line-height: 1;">}</div> <div>per rupee.</div> </div>
	Kalna ...	2.55	
	Katwa ...	1.89	
	Raniganj ...	2.85	
	2 Bankura „ 21, '93	2.36	
	3 Birbhum „ 21, '93	1.09	Weather—cloudy with occasional showers. Harvesting of <i>aus</i> finished. Lands being prepared for <i>rabi</i> crops. <i>Aman</i> doing well. Supply of fodder and water sufficient. Common rice selling at 15½ seers per rupee at Bankura and 12½ seers at Vishnupur.
	Rampur Hat ...	2.64	
	4 Midnapore „ 21, '93	3.29	Weather—cloudy with occasional showers. Prospects of standing crops excellent except in inundated parts. No cattle-disease. Fodder and water sufficient. Prices of common rice :— <div style="display: flex; justify-content: space-between; align-items: center;"> <div> <i>Srs.</i>  Sadar ... 12  Contai ... 13  Tamluk ... 12  Ghatal ... 11 to 12 </div> <div style="font-size: 3em; line-height: 1;">}</div> <div>per rupee.</div> </div>
	5 Hooghly „ 21, '93	2.43	
	Serampore ...	2.66	
	Jahanabad ...	3.14	
	6 Howrah „ 21, '93	2.52	
PRESIDENCY DIV.	7 24 Parganas „ 21, '93	2.13	Weather—seasonable. Prospects of crops fair everywhere except in thana Bankipur. Ploughing for <i>rabi</i> crops going on. Rice sells at— <div style="display: flex; justify-content: space-between; align-items: center;"> <div> <i>Srs.</i>    <i>c.</i>  Sadar ... 9 to 11½  Diamond Harbour ... 11 0  Basilhat ... 9 13½  Barasat ... 11 0 </div> <div style="font-size: 3em; line-height: 1;">}</div> <div>per rupee.</div> </div>
	8 Nadia „ 21, '93	1.51	
	Kushtia ...	1.58	
	Meherpur ...	2.20	
	Choudanga ...	1.31	
	Ranaghat ...	3.83	Weather—showery. Prospects of <i>aman</i> good. Land being ploughed for <i>rabi</i> crops.
	9 Khulna „ 21, '93	0.85	
	Bagerhat ...	2.86	
	Satkhira ...	2.24	Weather—seasonable with occasional clouds and rain. The rainfall of the week has done much good to the <i>aman</i> and <i>rabi</i> crops and sowings of oilseeds. Cultivation for winter crops and sowings in progress. No cattle-disease. Fodder and water sufficient.
	10 Jessore „ 21, '93	0.30	
	Jhenida ...	0.96	
	Mazura ...	1.61	
	Narail ...	1.47	
	11 Bangwan „ 21, '93	3.00	Weather—seasonable. Winter rice doing well. Sowing of <i>rabi</i> crops stopped for the recent rain. Fodder sufficient for cattle. Common rice sells at 11 seers per rupee.
	Murshidabad „ 21, '93	1.81	



No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL—<i>conold.</i></b>			
CHITTAGONG DIV.	12 Chittagong	...	Report not received.
	13 Noakhali	...	Report not received.
	14 Tippera Oct. 21, '93	4.3	Weather—seasonable. Transplantation of <i>aman</i> paddy nearly finished. Prospects of crops not very hopeful. Recent rain has done some good to paddy. Price of rice has fallen a little. Fodder not sufficient.
	15 Chittagong Hill Tracts.	...	Report not received.
DACCA DIV.	16 Dacca Oct. 21, '93	2.30	Weather—hot with occasional rain. Harvesting of jute finished and that of paddy commenced in some places. Prospects of <i>aman</i> favourable. Mustard, <i>mug</i> and <i>kalai</i> being sown. Common rice selling at from 7 to 10 seers per rupee. Fodder available. No cattle-disease.
	17 Faridpur .. 21, '93	1.21	Weather—cloudy and fine with occasional slight rain. Prospects of standing crops good. Early <i>aman</i> being harvested and sowing of <i>kalai</i> commenced. Water subsiding rapidly. Price of rice 9 to 11 seers per rupee. Cattle-disease in some parts of Bhedorganj and Palong thanas in the Madaripur subdivision.
	Goalundo ..	1.45	
	Madaripur ..	1.39	
RAJSHAHI DIV.	18 Backergunge .. 21, '93	2.09	Weather—hot with occasional rain. Nights getting cool. Prospects of standing crops fair. Common rice sells from 8 to 9 seers and coarse rice 10 seers per rupee. Fodder and water sufficient.
	19 Mymensingh .. 21, '93	5.30	Weather—hot with occasional rain. Prospects of standing crops good. Common rice selling at 9 to 10 seers per rupee. Condition of cattle good. Supply of fodder sufficient except in the Kishorganj subdivision.
	20 Dinajpur .. 21, '93	1.83	Weather—seasonable with slight showers. Outturn of winter rice expected to be 16 annas. Lands are being ploughed for <i>rahi</i> crops. Condition of cattle good. Price of rice at Sadar and Thakurgaon stationary. Supply of fodder and drinking water ample.
	Thakurgaon ...	1.82	
RAJSHAHI DIV.	21 Rajshahi .. 21, '93	2.43	Weather—cloudy and rainy. Prospects of crops good. The rain has done much good to the standing rice crop. No cattle-disease reported. Water and fodder-supply ample. Price of rice stationary.
	Nator ..	1.79	
	22 Rangpur .. 21, '93	1.24	Weather—seasonable. Lands under preparation for cold-weather crops. Peas, mustard and <i>kalai</i> being sown. Prospects of <i>aman</i> very favourable. Price of common rice 9 to 10 seers per rupee.
	Nilphamari ..	0.50	
	Gaibanda ..	1.01	
RAJSHAHI DIV.	Kurigaon ...	0.15	Weather—seasonable. Paddy and sugarcane doing well. Price of common rice stationary. Fodder and water sufficient.
	23 Bogra .. 21, '93	1.32	
	Sherpur ..	3.25	
	Naukhila ..	2.73	Weather—cloudy and rainy. The late rain has done good to paddy. Mustard, <i>khesari</i> , and hemp are being sown. Rice sells at 10 seers per rupee in Pabna and Rs. 4.8 to Rs. 4.12 per maund in Sirajganj. Jute sells at Rs. 6.8 to Rs. 7.3 per maund. Fodder and water-supply sufficient.
	24 Pabna .. 21, '93	1.86	
RAJSHAHI DIV.	25 Darjeeling .. 21, '93	5.47	Weather—cloudy and wet at beginning of week; fine at its close. In the hills:— <i>Haimanti dhan</i> , <i>bara marua</i> , <i>phaphur</i> , <i>kalai</i> , and potatoes progressing favourably. <i>Toree</i> being planted. In the Terai.—Prospects of <i>haimanti</i> favourable. Rain has done much good to standing crops. Outturn of jute and <i>bhadai</i> estimated at 16 annas and 15 annas respectively. Prices of coarse rice:—
	Siliguri ...	1.8	
RAJSHAHI DIV.			Srs. Hills ... 9 } Terai ... 11 } per rupee.
	26 Jalpaiguri .. 21, '93	2.70	Weather—seasonable. Prospects of standing crops good. Steeping of jute continues. Price of common rice stationary. Fodder and water sufficient. No cattle-disease.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR.</b>			
BHAGALPUR DIV.	27 Monghyr Oct. 21, '93	1.98	Weather—cloudy and rainy, hot in day, and cool in night. Prospect of winter rice very promising. <i>Kurthi</i> , indigo, and sugarcane doing well. <i>Rabi</i> sowings commenced. Fodder and water sufficient. Cattle-disease towards Nawadih and Sekundra. Prices of common rice :—
	Gegusarai ...	1.23	
	Jamui ...	2.18	
	28 Bhagalpur .. 21, '93	2.76	Weather—seasonable. Sowing of <i>rabi</i> crops going on. Prospect of winter rice good. Cattle-disease is reported to be prevailing in the Sultanganj thana of the Sadar subdivision.
	Banka ...	1.00	
	Madhipura ...	0.55	
	29 Purnoa .. 21, '93	3.46	Weather—cloudy with heavy rain towards the middle of the week. Cool in the morning and foggy. <i>Aghani</i> doing well. Cultivation for <i>rabi</i> progressing favourably. Fodder and water plentiful. No cattle-disease. Prices of rice :—
	Kishanganj ...	0.75	
	Araria ...	1.05	
	30 Malda .. 21, '93	4.18	Weather—fair; rather warm for the time of the year. Rain has done good to winter rice which is coming into ear, but retarded indigo sowing. Sowing of <i>rabi</i> crops commenced. Ordinary rice selling from 11 to 16 seers per rupee. Fodder and water-supply sufficient.
PATNA DIVISION.	31 Sonthal Parganas .. 21, '93	1.15	Weather—sultry with partial rain in heavy showers; clearing up now with north wind. There has been almost too much wind and rain. Rice will be a bumper crop. Lands are being prepared for winter crops. Fodder-supply good.
	Deoghur ...	1.93	
	Godda ...	2.43	
	Jamtara ...	2.10	
	Pakur ...	2.61	
	Rajmahal ...	2.10	
	32 Patna .. 21, '93	6.13	Weather—now fine after a most cloudy week. The rice crop is not believed to have suffered from the heavy rain in the north-west of the district, and in the east it has had sufficient rain to still more improve its prospects. Potatoes have suffered in Dinapore and Sadar. Prices of common rice :—
	Bihar ...	1.77	
	Dinapore ...	11.06	
	Barh ...	1.14	
	33 Gaya .. 21, '93	1.67	Weather—stormy most of week: now clear and cool. Crop prospects much improved by rain. Paddy crop excellent, and prices of rice fallen to—
	Nawada ...	2.11	
	Jahannabad ...	2.98	
	Aurangabad ...	3.21	
	34 Shahabad .. 21, '93	3.60	Weather—cool and cloudy with alternate sunshine. Prospect of paddy continues to be promising except in the Sasaram subdivision. <i>Rabi</i> already sown is reported to have suffered on low lands. Reaping of <i>serka</i> and <i>sathi</i> paddy practically over. Prices stationary.
	Buxar ...	8.44	
	Sasaram ...	5.60	
	Bhabhua ...	3.19	
	35 Darbhanga .. 21, '93	9.32	Weather—cloudy and rainy. The rainfall of the week has done immense good to the rice crop generally. It has, however, injured the <i>rabi</i> already sown. Fine weather is now much wanted to facilitate cultivation for <i>rabi</i> sowings. Fodder for cattle sufficient. Prices remain stationary.
	Madhubani ...	4.75	
	Samastipur ...	2.67	
	36 Maffarpur .. 21, '93	11.80	Weather—rainy but fair since yesterday (20th). Rice doing well. <i>Rabi</i> sowings retarded on account of heavy rain. Fodder plentiful.
	Hajipur ...	6.14	

No.	District and date of return.	Rainfall at Sider Station in inches.	Character of the weather and state and prospects of the crops.
BIHAR—consolid.			
PATNA DIVISION—consolid.	37 Saran Oct. 21, '93	4.23	Unusual amount of rain for the season. Prospects of crops excellent. Fodder and water plentiful. Prices of common rice:— <div style="display: flex; justify-content: flex-end; align-items: center;"><div style="display: flex; align-items: center;"><div style="margin-right: 5px;">Srs. c.</div><div style="display: flex; flex-direction: column; align-items: center;"><div>15 12</div><div>15 8</div><div>16 14</div></div><div style="margin-left: 5px;">} per rupee.</div></div></div>
	Siwan ...	8.81	
	Gopalganj ...	1.53	
	Chapra ...	...	
Siwan ...	...		
Gopalganj ...	...		
38 Champaran „ 21, '93	8.40	Weather—was very foul during the first three days of the week with constant showers. It has cleared up from yesterday (20th). Prospects of <i>aghani</i> good. Prices almost stationary. Fodder and water sufficient.	
ORISSA.			
ORISSA DIVN.	39 Cuttack ...	...	Report not received.
	40 Puri Oct. 19, '93	7.17	Weather—stormy with frequent showers. <i>Sarad</i> rice growing well. <i>Laghu</i> rice in ear. Miscellaneous crops doing well. General prospects good. Prices of common rice:— <div style="display: flex; justify-content: flex-end; align-items: center;"><div style="display: flex; align-items: center;"><div style="margin-right: 5px;">Srs. c.</div><div style="display: flex; flex-direction: column; align-items: center;"><div>14 7</div><div>15 12</div></div><div style="margin-left: 5px;">} per rupee.</div></div></div>
	Khurda ...	5.34	
	41 Balasore „ 21, '93	4.40	Weather—seasonable. The recent rainfall has been most beneficial to the crops, especially on high lands.
CHOTA NAGPUR.			
South-West Frontier Agency.			
CHOTA NAGPUR DIVN.	42 Hazaribagh Oct. 21, '93	4.45	Weather—stormy and very wet; fine since 20th. Prospects of winter rice very good; 16-annas outturn expected. Sugarcane doing well. Sowings of <i>rabi</i> crops about three-fourths completed. Fodder and water ample. Prices stationary.
	43 Lohardaga ...	...	Report not received.
	44 Palamau Oct. 20, '93	2.93	Heavy rain and wind, which cleared off to-day (20th). Heavy rain throughout the district has greatly benefited the paddy which will now be a full crop. The rain has damaged the <i>rabi</i> lately sown, but there is plenty of time for resowing where necessary, and prospects are extremely favourable. A little cattle-disease reported. Prices still stationary. Fodder and water ample.
	45 Singhbhum „ 21, '93	0.76	Clouds have nearly dispersed. Cold weather has decidedly set in this morning. Crops continue to thrive, and the late showers have improved the prospect. Cattle-disease reported from Baharagora.
46 Manbhum „ 21, '93	1.98	Weather—stormy with heavy rain, not favourable to the crops. Low-land crops are suffering from excessive moisture. Rice sells from 10 to 12 seers per rupee. Fodder and water sufficient.	

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 24th October, 1893.

M. FINUCANE,  
Offg. Secy. to the Govt. of Bengal.

**PRICES-CURRENT (retail) of Food-grains, Firewood, and Salt in the****QUANTITIES PER RUPEE**

Num.ber.	DISTRICTS.	QUANTITIES PER RUPEE																	
		WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLEM. (Sorghum Vulgare.)					
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.			
BENGAL.																			
BURDWAN DIVISION.	1	Burdwan	..	13 5	12 7	12 10	...	...	...	9 6	9 0	9 0	12 12	10 8	11 4	...	...	...	
	2	Bankura	..	14 8	14 4	12 0	...	...	...	10 0	10 0	8 12	12 5	13 4	10 8	...	...	...	
	3	Birbhum	..	12 0	12 0	10 4	...	...	...	10 8	10 8	9 12	12 12	12 12	11 4	...	...	...	
	4	Midnapore	...	11 0	11 0	11 10	...	...	...	10 0	10 0	9 8	12 3	12 3	10 10	...	...	...	
	5	Hooghly	...	13 0	13 0	12 8	13 0	13 0	13 0	8 0	8 0	8 0	10 0	10 0	9 8	...	...	...	
	6	Howrah	...	...	...	...	...	...	...	8 14	8 14	8 14	11 4	11 4	11 6	...	...	...	
PRESIDENCY DIVISION.	7	Calcutta	...	12 0	12 1	11 2	16 6	16 6	15 3	7 1	7 1	8 0	9 8	9 8	10 13	18 4	18 4	15 6	
	8	24-Parganae	...	13 4	11 12	11 4	16 0	16 0	16 0	7 0	7 0	8 0	10 12	10 12	11 0	...	...	...	
	9	Nadia	...	14 3½	15 4½	11 13½	...	...	...	8 0	8 13	9 0	10 13	10 10½	11 4	...	...	...	
	10	Khulna	...	...	...	...	...	...	...	8 0	8 0	10 0	9 0	9 0	10 4	...	...	...	
	11	Jessore	...	11 8	11 8	10 0	...	...	...	8 8	8 8	9 4	11 0	10 8	12 8	...	...	...	
	12	Murshidabad	...	13 0	13 0	12 0	...	...	...	9 8	9 8	9 0	12 0	11 8	12 0	...	...	...	
CHITTAGONG DIVISION.	13	Chittagong	...	10 0	10 0	10 0	...	...	...	8 0	8 8	10 0	10 0	11 0	12 0	...	...	...	
	14	Noakhali	...	...	...	...	...	...	...	8 0	7 4	10 0	9 8	9 4	11 0	...	...	...	
	15	Tippera	...	9 12	8 0	9 8	...	...	...	7 8	7 0	7 6½	8 4	8 0	8 0	...	...	...	
	16	Chittagong Hill Tracts.	...	...	...	...	...	...	...	...	...	...	9 0	8 14	8 14	...	...	...	
DACCA DIVISION.	17	Dacca	...	13 0	13 0	11 0	16 0	...	...	7 0	6 12	9 0	9 12	8 0	10 0	...	...	...	
	18	Faridpur	...	15 0	15 0	10 0	18 0	18 0	...	8 0	8 0	8 0	9 0	9 0	11 0	...	...	...	
	19	Backergunge	...	...	...	...	...	...	...	8 0	8 0	9 0	8 6	8 4	10 8	...	...	...	
	20	Mymensingh	...	9 8	9 8	9 8	...	...	...	7 0	7 0	8 0	8 8	8 8	8 8	...	...	...	
RAJSHAH DIVISION.	21	Dinajpur	...	15 10	12 0	11 4	12 0	...	15 12	9 0	9 10	8 12	13 3	11 10	13 4	...	...	...	
	22	Rajshahi	...	15 12	15 12	12 0	18 12	24 0	12 0	8 4	8 10	9 0	2	10 2	11 4	...	...	...	
	23	Rangpur	...	13 8	13 5	11 8	...	...	...	7 8	8 0	8 0	10 2	10 0	10 0	...	...	...	

A In the subdivisions the retail prices of salt per rupee are:—Kaima 10 seers, Raniganj 10½ seers, and Katwa 10½ seers.

B At Vishnupur the retail price of salt is 10 seers per rupee.

C At Rampur Hat the retail price of salt is 11½ seers per rupee.

D In the subdivisions the retail prices of salt per rupee are:—Contai 10 seers, Tamruk 11 seers, and Ghatal 10 seers 7 chitaks.

E In the subdivisions the retail prices of salt per rupee are:—Serampore (at Bhudroswar) 10 seers 10 chitaks and Jahannabad 10 seers 10 chitaks.

F At Uluberia the retail price of salt is 11 seers per rupee.

G In the mufassal wards the retail prices of salt per rupee are:—Chetla hat 11 seers 7 chitaks, Magra hat 10 seers 10 chitaks, Baduria 11 seers, Barasat 10 seers 10 chitaks.

H In the subdivisions the retail prices of salt per rupee are:—Kushtia (Bahadurkhal) not reported, Chuadanga 10 seers, Meherpur 11 seers, and Ranaghat 9 seers.

I In the subdivisions the retail prices of salt per rupee are:—Bagerhat 8 seers and Satkhira 10 seers 10 chitaks.

## Head-quarters Station Bazars of the Districts of Bengal on the 15th October, 1893.

INDIAN-CORN OR MAIZE. (Zea Mays.)															ARHAR OR THUR, CADJAN PEA. (Cajanus Indicus.)															FIREWOOD.															SALT.															WHOLESALE PRICES PER MAUND OF 40 SEERS.															SALT.															DISTRICTS.															Number.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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J In the subdivisions the retail prices of salt per rupee are :—Jhenida 9 seers 12 chitaks, Magura 9 seers 12 chitaks, Narail not reported, and Bangon 10 seers 11 chitaks.

K In the subdivisions the retail prices of salt per rupee are :—Kandi 10 seers, Jangipur 10 1/2 seers.

L At Cox's Bazar the retail price of salt is 8 seers per rupee.

M At Fenny Hat the retail price of salt is 8 seers per rupee.

N In the subdivisions the retail prices of salt per rupee are :—Brahmanbaria 8 seers and Chandpur 8 seers.

O In the subdivisions the retail prices of salt per rupee are :—Madanganj 10 seers, Manikganj 9 seers 13 chitaks, Mirkadim 10 seers, and Munshirhat 10 seers.

P In the subdivisions the retail prices of salt per rupee are :—Madaripur 10 seers and Ghalundo 10 seers.

Q In the subdivisions the retail prices of salt per rupee are :—Pirojpur 10 1/2 seers, Patriakhali 9 seers, and Bhola 8 seers.

R In the subdivisions the retail prices of salt per rupee are :—Jamaipur 8 seers 14 chitaks, Kishorganj 8 seers, Netrokona 8 seers, and Kagnari 10 seers.

S In the subdivisions the retail prices of salt per rupee are :—Nator 9 seers and Naugaon 9 seers.

T In the subdivisions the retail prices of salt per rupee are :—Nilphamari 10 seers, Gaibanda 10 seers, and Kurigan 8 seers.

## PRICES-CURRENT (retail) of Food-grains, Firewood, and Salt in the Head-quarters

No.		DISTRICTS	QUANTITIES PER RUPEE IN														
			WHEAT			BARLEY			RICE, BEST SORT			RICE, COMMON			JOWAR OR CHOLU (Sorghum Vulgare)		
			Present return	Next preceding return	Corresponding return of last year	Present return	Next preceding return	Corresponding return of last year	Present return	Next preceding return	Corresponding return of last year	Present return	Next preceding return	Corresponding return of last year	Present return	Next preceding return	Corresponding return of last year
BENGAL—continued																	
RAJSHAH DIVISION	23	Pogra	13 8	12 0	12 0				8 4	7 8	9 12	9 12	9 0	12 0			
	24	Fithna	17 4	17 1	13 8	8 22	8		6 0	6 0	6 12	10 5	10 14	13 2			
	25	Darjeeling	8 0	8 0	7 0	5 0	5 0	8 0	5 0	5 0	5 0	10 0	10 0	10 0			
	26	Baloghata	13 0	13 0	11 0	1 0	13 0	13 0	7 8	7 8	6 0	11 0	11 0	10 0			
BIHAR																	
BHAGALPUR DIVISION	27	Monghyr	16 4	15 8	12 5	1 0	2 0	1 0	8 0	8 0	9 0	13 1	12 0	11 4	0		
	28	Bhagalpur	15 2	15 2	13 11	0 3	21 1	15 2	11 6	10 8	10 1	15 2	1 10	12 10			
	29	Purnea (Kailash)	16 0	16 0	11 0				10 0	10 0	10 0	12 0	12 0	14 0			
	30	Malda (Finglish Bazar)	16 0	16 0	12 8						9 0	13 8	12 0	12 0			
	31	Sonthal Bazar	12 8	12 8	11 0				11 0	11 0	9 0	11 8	14 4	11 0			
PATNA DIVISION	32	Patna	18 8	19 0	15 0	25 0	26 0	22 0	10 8	10 8	10 8	11 8	16 0	15 8	24 0	27 0	25 0
	33	Gaya	11 0	14 8	12 0	19 0	18 0	17 0	9 8	9 8	9 0	13 8	13 0	12 8	18 0	18 0	14 8
	34	Shahabad	11 0	11 0	14 0	20 0	20 0	17 0	8 0	5 0	8 0	11 0	16 0	11 0			
	35	Darbhanga	15 0	15 0	12 10	11 0	18 9	15 6	12 0	12 0	11 0	16 0	14 1	14 11			
	36	Muzaffarpur	1 0	15 8	12 0	22 5	22 0	19 0	8 0	8 0	5 0	13 0	13 8	12 0			
	37	Saran	16 0	17 8	13 8	18 0	14 0	17 5	11 0	11 8		13 0	1 0	12 11			
	38	Champaran	13 8	1 12	11 8	18 4	23 0	15 8	8 8	5 8	9 0	16 12	1 4	16 8			
ORISSA																	
ORISSA DIVISION	39	Cuttack	11 13	10 8	10 3				10 8	10 8	7 11	1 2	13 2	11 13			
	40	Puri	10 8	10 8					5 0	8 0	7 1	13 0	13 0	13 2			
	41	Balasore	10 0	12 0	11 0	10 0	10 0	10 0	10 0	10 0	10 0	16 0	17 0	18 0			
CHOTA NAGPUR																	
CHOTA NAGPUR DIVISION	42	Hazaribagh	12 8	12 8	11 0	15 0	15 0	15 0	8 0	8 0	8 0	12 0	12 0	12 5			
	43	Ichhapur	11 0	11 0	11 0	11 0	11 0	11 0	10 0	10 0	11 0	14 0	14 0	13 0			
	44	Palamu	7 0	7 0	7 8	12 6	12 0	11 0	11 0	10 0	11 0	14 0	14 0	13 0			
	45	Singbhum	1 0	12 0	13 0				8 0	8 0	12 0	11 0	12 0	11 0			
	46	Manbhum	1 8	1 8	11 3				9 0	9 0	9 0	11 0	10 0	12 0			

U At Suargony the retail price of salt is 10½ seers per rupee

V At Ahpur the retail price of salt is 8 seers per rupee

W In the subdivisions the retail prices of salt per rupee are —Bogusara 10 seers, Jamui 10 seers

X In the subdivisions the retail prices of salt per rupee are —Bunka 10 seers, Madhipura 10 seers, and Supaul 10 seers

Y In the subdivisions the retail prices of salt per rupee are —Buxar 10 seers, and Rajmahal 9 seers

Z In the subdivisions the retail prices of salt per rupee are —Deoghur not reported, Godda 9 seers, Jamtara 9 seers, Pakur 10½ seers, and Rajmahal 9 seers

a In the subdivisions the retail prices of salt per rupee are —Aurangabad 9½ seers, Nawada 8 seers, Jahanabad 10 seers

b In the subdivisions the retail prices of salt per rupee are —Buxar 10½ seers, Buxar 10 seers, and Bhabhua 9 seers

. CALCUTTA

The 24th October, 1893.



*PRICES-CURRENT (wholesale) of Food-grains, Firewood, and Salt*

Number.	MARKTS.	WHEAT.			BARLEY.			RICE, BEST SORT.			RICE COMMON.		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
		R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
1	Calcutta ...	3 4 0	3 4 6	3 5 1	2 7 0	2 7 0	2 5 9	5 10 0	5 10 0	4 12 0	4 2 6	4 2 6	3 6 3
2	Sirajganj ...	3 0 0	2 12 0	3 6 0	...	...	...	6 0 0	6 2 0	6 0 0	4 10 0	4 12 0	3 14 0
3	Dacca ...	3 1 0	3 0 0	3 8 0	2 8 0	...	...	5 12 0	5 8 0	4 7 0	4 1 0	4 14 0	4 0 0
4	Narayanganj*	...	...	...	...	...	...	...	5 4 0	4 0 0	...	5 0 0	3 12 0
5	Chittagong	4 0 0	4 0 0	4 0 0	...	...	...	4 12 0	4 8 0	4 0 0	3 14 0	3 9 0	3 4 0
6	Patna ...	2 2 9	Red. 2 1 0	2 10 6	1 9 6	1 8 9	1 13 0	3 13 0	3 12 6	3 12 6	2 7 0	2 8 0	2 9 0
		2 6 0	White. 2 3 6	2 13 6									
7	Balasore ...	3 1 0	3 10 0	3 8 0	4 0 0	4 0 0	3 12 0	4 0 0	4 0 0	3 12 0	2 8 0	2 6 0	2 2 0
8	Puri ...	3 12 0	3 12 0	...	...	...	...	5 0 0	5 0 0	5 10 0	3 0 0	3 0 0	3 0 0
9	Cuttack ...	3 6 0	3 10 0	3 14 0	...	...	...	3 10 0	3 10 0	5 0 0	3 0 0	3 0 0	3 6 0

\* Present return not received.

Calcutta,  
The 24th October, 1893.



on the 15th October, 1893.

PRICES PER MAUND					
JOWAR OR CHOLUM. ( <i>Sorghum Vulgare</i> .)			BAJRA OR CUMBU. ( <i>Pennisetum typhos- deum</i> .)		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
2 2 0	2 3 0	2 5 7	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
1 10 9	1 7 9	1 9 6	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...

2110a

ARHAR OR THUR, CADJAN PEA. ( <i>Cajanus indicus</i> .)			FIREWOOD.			SALT.			MARKETS.
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	
2 4 0	2 4 0	2 5 10	0 7 0	0 7 0	0 6 0	3 8 0	3 7 0	3 4 0	Calcutta.
...	...	...	0 6 6	0 6 6	0 8 0	3 12 0	3 10 0	3 7 0	Sirajganj.
2 10 0	3 10 0	2 4 0	0 5 0	0 5 6	0 5 0	4 5 0	4 0 0	3 11 0	Dacca.
...	3 2 0	3 8 0	...	0 6 0	0 8 0	...	3 11 0	3 8 0	Narayanganj.
...	...	...	0 8 0	0 8 0	0 5 0	4 0 0	4 0 0	3 13 6	Chittagong.
1 8 9	1 7 9	1 13 0	0 5 0	0 5 0	0 5 0	3 11 6	3 10 0	3 8 0	Patna.
1 0 0	3 14 0	3 10 0	...	...	...	3 8 0	3 8 0	3 10 0	Balamore.
2 8 0	2 8 0	...	...	...	...	3 4 0	3 4 0	3 4 0	Puri.
1 0 0	2 0 0	1 14 0	0 8 0	0 8 0	0 8 0	3 8 0	3 8 0	3 12 0	Cuttack.

shed for general information.

M. FINUCANE,  
Offg. Secretary to the Govt. of Bengal.

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.											
			AIR PRESSURE.			WIND.		TEMPERATURE.						
			Mean barometric height, 8 A.M., reduced to 32°.	Mean reduced to sea-level and constant gravity, lat. 45°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.
ORISSA.	Puri	Puri	29.862	29.817	—	SW	204	89.7	15th Oct.	75.8	16th Oct.	86.1	77.0	81.6
		Gopalpore	29.853	29.814	—0.04	NNW	264	85.2	15th "	74.1	19, 21 "	85.2	75.0	80.2
		False Point	29.878	29.841	—0.32	Variable	261	87.9	15th "	74.1	17th "	85.8	75.8	80.8
	Cuttack	Cuttack	29.805	29.828	—0.03	Calm		88.7	15, 21 "	73.8	17th "	86.6*	75.4	81.1*
	Balasore	Balasore	29.850	29.853	—0.02	Nly		87.4	15, 21 "	73.6	17, 18, 21 "	84.1	74.9	79.6
	Midnapore	Midnapore	29.781	29.878	—0.06	Ely	55	90.3	15, 16 "	73.1	18, 20, 21 "	87.0	74.5	80.3
		Calcutta	29.911	29.878	+0.04	SEly	69	88.6	16th "	72.7	20th "	85.4	75.0	80.2
	24-Parganas	Saugor Island	29.893	29.862	—0.09	Ely	271	89.7	15th "	75.0	21st "	87.0	77.3	82.1
	Howrah													
	Hooghly													
SOUTH-WEST BENGAL.	Nadia	Krishnagar	29.880	29.885	+0.016	ESE	105	90.8	16th "	74.2	20th "	87.7	75.5	81.6
	Khulna	Jessore	29.914	29.894	+0.015	Ely	77	89.5	16th "	74.4	21st "	87.4	75.8	81.0
	Burdwan	Burdwan	?	?	?	SEly	85	89.1	15, 16 "	72.3	19th "	86.7	74.0	80.9
		Kanungaj	29.906	29.876	+0.014	Ely	67	94.7	16th "	69.9	20th "	89.6	73.7	80.8
	Bankura	Bankura	29.819	29.873	0	Variable	107	89.1	15th "	73.1	17th "	85.5	74.9	80.8
	Birbhum	Berhampore	29.875	29.891	+0.008	Ely	82	89.1	16th "	73.3	21st "	86.9	75.8	81.0
	Murshidabad													
	Fabna	Nirajganj	29.909	29.905	+0.004	Calm & Ely.		89.1	16th "	71.7	21st "	87.0	74.0	81.0
	Bogra	Bogra	29.876	29.878	—0.032	NE	56	89.2	16th "	71.2	16, 20, 21 "	86.0	72.8	79.8
	Rajshahi	Rampur Boalia	29.863	29.883	+0.018	SE	88	89.6	16th "	71.7	21st "	86.6	74.3	80.6
NORTH BENGAL.	Malda	Malda	29.863	29.896	—	SE	73	89.1	16th "	71.0	21st "	85.6	74.1	79.9
	Dinajpur	Dinajpur	29.835	29.914	+0.036	Ely	33	87.6	16th "	73.2	20, 21 "	85.7	74.5	80.1
	Rangpur	Rangpur	29.836	29.915	+0.028	NEly	39	88.8	16th "	72.7	21st "	86.1	73.7	79.9
	Jalpaiguri	Jalpaiguri	29.892	29.934	+0.048	NEly	40	87.9	16, 17 "	71.1	20, 21 "	84.8	72.2	78.5
	Kuch Bihar													
	Darjeeling	Darjeeling	23.991	?	+0.051	NEly	78	82.0	17th "	47.6	20th "	50.4	50.3	50.1*
	Sikim	Gnatong	?	?	?	Variable		62.4	17th "	29.0	21st "	47.4	34.7	41.1
	Chittagong	Chittagong	29.878	29.913	+0.030	NEly		90.7	16th "	72.6	21st "	87.0	74.3	81.0
	Chittagong Hill Tracts	Demagiri						Observations not received.						
	Backergunge	Barisal	29.920	29.878	+0.029	Calm	48	90.3	16th Oct.	72.9	21st "	88.3	75.3	81.8
EAST BENGAL.	Noakhali	Noakhali	29.898	29.888	+0.033	NEly		88.5	16th "	71.3	16th "	86.9	74.4	80.7
	Faridpur	Faridpur	29.915	29.900	+0.021	E	40	88.5	16th "	72.9	16th "	86.4	75.5	81.0
	Dacca	Dacca	29.920	29.899	+0.025	Ely	87	90.6	16th "	72.2	16th "	85.9	75.8	82.4
	Tippera	Comilla	29.924	29.908	+0.040	Calm & Ely.	61	91.3	16th "	72.8	21st "	86.4	74.7	81.5
	Mymensingh	Mymensingh	29.894	29.905	+0.032	Ely	76	88.7	16th "	70.6	21st "	85.8	73.6	79.7
	Purnea	Purnea	29.819	29.899	+0.018	Ely & Calm.	27	89.2	16th "	67.3	21st "	84.8	73.3	78.9
	Bhagalpur	Bhagalpur	29.770	29.885	+0.015	E	60	89.2	15, 16 "	67.0	21st "	85.0	73.5	79.6
	Darbhanga	Darbhanga	29.769	29.862	—0.002	ENE	136	88.9	16th "	68.2	21st "	81.6	70.5	77.6
	Muzaffarpur	Muzaffarpur	29.755	29.891	—	Calm & Ely.	138	87.7	16th "	66.3	21st "	81.4	72.2	76.6
	Champaran	Motihari	29.695	29.878	+0.004	Ely	160	88.2	16th "	65.8	21st "	80.8	71.7	76.3
NORTH BIHAR.	Saran	Chapra	29.726	29.864	—0.003	Ely		90.3	16th "	68.6	21st "	84.6	73.5	78.5
		Dehri	29.562	29.863	—0.032	E	261	90.3	16th "	66.5	21st "	85.5	72.1	78.6
	Shahabad	Buxar	29.646	29.847	—0.041	E	170	90.0	16th "	68.8	20, 21 "	85.1	72.1	78.4
		Arrah	29.707	29.862	—0.033	Variable	148	91.9	16th "	70.0	21st "	85.8	73.1	79.5
	Gaya	Gaya	29.521	29.854	—0.039	E	126	91.9	16th "	65.7	21st "	86.8	71.8	79.6
	Patna	Bankipore	29.734	29.873	—0.010	SEly	161	90.0	16th "	69.2	20th "	83.9	72.3	78.1
	Monghyr													
	South Parganas	Naya Dumka	29.435	29.828	+0.013	SEly	?	88.6	16th "	71.3	20, 21 "	85.0	73.3	79.4
	Hazaribagh	Hazaribagh	27.890	29.855	—0.038	SEly	244	85.2	16th "	61.3	21st "	80.5	66.7	73.6
	Lohardaga	Ranchi	27.759	29.840	—0.044	SEly		82.0	16th "	61.9	21st "	79.0	66.9	73.6
CHOTA NAGPUR.	Palamau	Daltonganj												
	Singbhum	Chibasa	29.128	29.844	—0.018	Calm	15	90.9	16th "	70.7	21st "	80.9	72.6	79.8
ASAM.	Sibsagar	Sibsagar	29.657	29.930	+0.024	Ely		89.1	17th "	71.4	17, 21 "	85.0	73.5	79.6
	Goalpara	Dhubri	29.549	29.930	+0.037	NE & calm.	102	87.7	16th "	70.8	20th "	85.1	73.8	79.0
	Cachar	Silchar	29.673	29.930	+0.040	Calm		94.0	16th "	72.5	20th "	86.6	73.9	81.5

\* Mean of 5 days. † Mean of 6 days.

**Explanation.—Summary.**—The normal means of air pressure and temperature are the arithmetical average or means of the readings during the same period. The humidity of the atmosphere is expressed at percentage, saturated air being represented by 100. A clear sky is denoted by 0 and an overcast sky by 101. The rainfall the normal mean are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional stations, i.e. from total rainfall at the subdivisional stations in the district sending in returns divided by the number of stations. A rainy day is one of

for the week ending Saturday, the 21st of October 1893.

DISTRICT OBSERVATIONS.																
Variation from normal mean.	Mean 8 A.M. temperature.	Average humidity at 8 A.M.	Average cloud amount at 8 A.M.	Rainfall of week at observing station.	OF WEEK				RAINFALL.						DISTRICT.	
					Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Since 1st of month.			Since 18th October 1893.				
									Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.		
-	80.6	85	7.1	11.46		1.67		1.69		5.54			1.18		Puri.	
-2.0	78.0	92	4.7	5.62												
-0.4	81.2	87	7.6	3.07												
-1.0	79.3	85	7.1	4.92		0.93		1.26		3.30			0.08			
-0.6	78.9	90	5.4	4.57		1.01		1.16		4.16			0.61		Outlack.	
+0.2	78.4	89	4.4	3.22	3.14	1.31	2.25	1.03	4.84	3.56	+1.28	3.13	1.07	+2.06	Balasore.	
-0.5	78.8	87	4.0	2.13	2.31	1.35	2.71	1.14	5.94	3.73	+2.21	2.32	1.10	+1.22	Midnapore.	
+0.4	80.6	90	9.0	2.07											24-Parganas.	
						0.92		0.96		3.15			0.78			
						1.06		0.97		3.43			0.96			
+0.8	80.6	80	6.1	1.31	1.14	1.17	2.60	0.96	4.59	3.44	+1.15	1.02	0.81	+0.21	Howrah.	
-0.3	81.2	88	5.9	0.30	0.74	1.42	2.33	1.14	3.80	3.14	+0.66	1.69	1.14	-0.55	Hooghly.	
-0.9	78.1	89	8.0	2.00	1.94	1.04	1.80	1.04	3.41	3.15	+0.26	0.72	0.85	-0.13	Nadia.	
+0.4	77.3	90	5.3	1.62	1.74	1.05	3.50	0.91	3.57	3.06	+0.51	1.72	0.85	+0.87	Khulna.	
-1.6	76.6	80	8.1	2.36	2.10	0.92	4.25	1.02	3.40	2.81	+0.59	2.08	0.82	+1.26	Jessore.	
-0.2	78.1	92	7.3	1.81		1.15		0.99		3.06			1.07		Burdwan.	
+0.9	78.0	91	5.1	1.05	2.95	1.21	3.50	1.08	3.82	3.79	+0.03	2.95	1.14	+1.81		
-0.4	79.1	86	3.6	2.49		1.51		1.04		1.69			1.21			
+0.8	79.9	87	5.4	2.06	2.30	1.07	4.07	0.86	4.43	3.86	+0.57	2.28	0.71	+1.54		
-	77.6	88	6.4	1.18		0.56		0.78		2.01			0.47		Malda.	
+0.5	77.4	88	7.6	2.00		0.94		0.78		2.36			0.80			
+0.5	77.3	91	4.6	1.24	1.78	1.27	3.09	0.73	2.70	1.18	1.48	1.78	1.17	+0.61	Dinajpur.	
0	76.0	89	6.9	2.65	2.70	1.61	3.90	0.79	2.84	3.73	-0.89	2.70	0.93	+1.77	Rangpur.	
+0.5	56.2	90	7.1	5.47	3.65	1.24	2.25	0.94	4.61	4.61	0	3.65	1.04	+2.61	Jalpaiguri.	
-	40.5	79	4.3	7.36		0.95		1.05		4.92			0.77		Kuch Bihar.	
+0.8	79.5	87	6.3	1.92		0.80		1.28		1.76			0.84		Darjeeling.	
					1.74	0.99	4.00	1.60	5.87	1.79	+1.08	1.74	0.66	+1.08	Ganton.	
+1.4	80.4	89	7.4	2.03		1.30		1.36		1.21			0.82		Chittagong Hill Tracts.	
+0.4	79.4	90	2.6	3.24		1.49		1.19		5.39			0.84			
+0.8	80.2	88	4.0	1.21	1.16	1.30	2.33	1.15	2.83	3.89	-1.06	1.16	1.04	+0.12		
-0.7	79.5	88	6.3	2.70	2.20	1.13	2.50	1.13	4.01	3.47	+1.14	2.05	0.77	+1.28		
+0.5	79.1	87	4.3	3.66		1.22		1.34		1.21			0.79		Dacca.	
-1.0	77.9	90	5.9	6.30		1.45		1.28		1.54			1.20		Tippera.	
-0.3	76.7	91	5.6	3.46		0.63		0.54		2.72			0.48		Mymensingh.	
+0.6	77.0	91	7.3	2.76	2.49	0.51	3.25	0.63	2.04	2.84	+0.10	2.49	0.61	+1.08	Purnea.	
-2.3	75.0	94	8.0	9.32	6.35	0.32	5.00	0.47	6.35	2.46	+3.89	5.89	0.28	+5.61	Bhagalpur.	
-	74.8	94	7.7	11.82		0.37		0.54		2.85			0.31		Darbhanga.	
-1.4	74.7	94	9.1	8.10	8.35	0.30	5.00	0.22	8.55	3.19	+5.06	8.55	0.22	+8.33	Muzaffarpur.	
-0.6	75.9	89	8.6	4.23		0.30		0.45		3.80			0.22		Champanan.	
+0.4	76.4	87	6.0												Saran.	
-1.1	74.0	91	8.7	8.17		0.47		0.55		2.61			0.32		Shahabad.	
+0.4	75.2	92	8.6												Gaya.	
-0.3	75.5	87	6.6	1.07	2.67	0.42	4.25	0.55	2.37	2.59	-0.02	2.46	0.30	+2.16		
-2.3	75.8	89	8.4	6.13	5.06	0.12	4.50	0.59	5.06	2.56	+2.50	4.32	0.36	+3.96		
					1.01	0.10	2.67	0.60	1.91	2.39	-0.48	1.01	0.36	+0.96		
+0.1	78.1	85	4.9	1.15	2.44	0.85	3.67	0.80	4.00	3.09	+0.91	2.42	0.66	+1.90	Monkhyr.	
-1.5	71.5	84	7.3	5.15		0.56		0.82		2.61			0.43		Sonthal Parganas.	
-2.3	71.5	86	8.3	3.67		0.45		1.00		2.06			0.37			
						0.22		0.50		2.39			0.16			
+0.4	76.1	92	9.1	0.76	0.76	0.43	2.00	0.85	0.76	1.97	-1.21	0.76	0.38	+0.34		
+0.9	76.2	97	6.4	2.51	3.07	0.57	3.50	0.87	3.06	2.67	+1.39	1.94	0.42		Hazribagh.	
-0.3	76.0	91	7.1	2.26											Lohardaga.	
+1.0	77.5	91	7.7	0.35											Palamau.	

The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater. The numbers denoting cloud amount represents the part of the sky covered the whole sky being denoted by 10. Under each head District observations of for the period in question during the past ten years. The means of the district are the numerical average of the rainfall returned received in the







**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSER-  
VATIONS TAKEN IN ASSAM, FOR THE WEEK ENDING 8 A.M.,  
SATURDAY, THE 21<sup>ST</sup> OF OCTOBER 1893.**

THE easterly wind circulation which was a prominent feature of the weather during the previous week continued without a break during the present one, and was accompanied by continuous showery weather in all districts. The low pressure in the west of the Bay, to which this was due, intensified, and a shallow depression developed in the early part of the week off the coast of the Circars. The depression was never of great depth, the difference from the normal being only  $\cdot 16$  inch when the area of lowest pressure drifted across the coast in a westerly direction, but its influence was well marked in two respects—(1) in causing squally weather in the Bay, (2) in leading to the unusually heavy rainfall in the western districts, and especially in North Bihar. The depression became noticeable on the first day of the week, though pressure was then rising except at Orconada and Masulipatam, and it was well defined on the following day. Though there was no large change of pressure on that day, the moderate fall in the west of the Bay and the brisk rise in Burmah and Assam led to considerably steeper gradients from west to east and a well-defined cyclonic circulation over a wide area. General rain then fell in all districts, but especially in the western half of the province, and temperature was above the normal only in North Bengal and Bihar. The depression moved to the west into Central India, but as a well-defined trough of low pressure lay north and south, the area of lowest pressure afterwards took a northerly direction, passing over the North-Western Provinces and breaking up on reaching the adjacent part of the Himalayan range. In consequence of this northerly direction of motion, showery weather continued in Bengal on the 17th and 18th, and on the 19th, the day after the depression had disappeared, general unsettled weather with numerous local thunderstorms and very heavy rainfall prevailed along the hills and in the adjacent plains. Most of the stations in North Bihar reported between 5 and 10 inches on that date. In the Darjeeling Hills the rainfall was not so heavy, the average fall being between 3 and 4 inches.

On the 17th and 18th conditions in the south-east of the Bay again became unsettled, but there was no definite disturbance till the 19th, when stormy weather developed rather rapidly to the west of Diamond Island. A depression of no great extent but of much greater depth and intensity nearer the centre than the one in the early part of the week moved rather rapidly into the centre of the northern half of the Bay on the 21st, the last day of the week. Though a diffused low pressure area was then shown by the observations taken at the coast stations, there was no sign of stormy weather except at Diamond Island up till the end of the week, and the depth of the depression or the character of the resulting storm could not be estimated.

*Pressure* has been slightly below the normal in the western districts owing to the shallow depression which affected the weather in the province and the west of the Bay during the first half of the week. Changes were seldom more than  $\cdot 05$  inch except on the 17th and 18th, when there was a fairly rapid rise in Orissa and the Circars. After the original depression broke up on reaching the hills on the 19th, a slight residual low pressure area moved eastward across North Bihar and North Bengal, where it was fairly well defined on the 20th, but on the 21st it had entirely disappeared.

*Temperature*.—In the early part of the week mean temperature was above the normal over the whole province by amounts varying from  $1^{\circ}$  in the southern districts to  $4^{\circ}$  in the west of Bihar. As the unsettled rainy weather developed and spread northwards, temperature fell, and by the middle of the week there was defect at most stations, but chiefly in the day readings. When the heavy rain fell in Bihar there was a large fall of temperature, defect in maximum readings being more than  $10^{\circ}$  in places. In Assam and the eastern half of the province the mean for the week is about half a degree above the normal, but in the other districts there is defect, greatest in Chota Nagpur and Orissa where it is  $1^{\circ}$ .

*Rainfall*.—As stated above, almost general rain fell in all districts except on the last day of the week, when the indraught towards the low pressure area which had then formed in the east of the Bay gave northerly instead of the easterly winds hitherto prevailing. The heavy fall in Orissa is due to the continued moderate rain during the first five days, and the similar amounts in Chota Nagpur and Bihar to the northerly direction taken by the disturbance which commenced on the 17th. The average fall in Orissa is 5.5 inches, in North Bihar 5.2 inches, the latter being about twelve times the normal; Chota Nagpur and South Bihar received between three and four inches, or more than six times the normal; while in the other districts excess was smaller, varying from  $\cdot 6$  inch in Lower Bengal to 1.6 inches in North Bengal.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 21st of October 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.						RAINFALL.									
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.		Since 16th May 1893.	
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.
Orissa	89.7	73.8	85.7	75.6	80.7	- 1.0	5.61	1.13	+4.38	4.00	1.33	+2.67	6.17	4.44	5.18	0.78
South-West Bengal	94.7	69.9	86.9	75.3	81.1	-0.2	1.87	1.22	+0.65	2.93	1.03	+1.90	4.47	3.41	1.83	1.01
North Bengal	89.6	71.0	80.2	73.7	79.9	+0.4	2.78	1.16	+1.62	3.20	0.87	+2.33	4.20	3.82	2.78	0.96
East Bengal	91.3	70.6	87.5	74.8	81.2	+0.3	1.91	1.35	+0.56	2.63	1.29	+1.34	5.12	4.32	1.88	0.88
North Bihar	90.3	65.8	83.2	72.8	78.0	-0.8	5.19	0.43	+4.76	3.72	0.46	+3.24	5.32	3.01	5.08	0.35
South Bihar	91.9	65.7	86.4	72.7	79.0	-0.5	3.48	0.35	+3.93	3.77	0.05	+3.12	3.95	2.71	3.31	0.45
Chota Nukpur	90.9	61.3	82.1	68.4	75.3	-1.2	3.20	0.50	+2.70	3.67	0.81	+2.73	3.75	2.44	3.14	0.80
Assam	94.0	70.8	86.9	73.1	80.1	+0.6										

METEOROLOGICAL OFFICE, BENGAL,  
The 24th October 1893.

C. LITTLE,  
Offg. Meteorological Reporter to the Govt. of Bengal.

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 15th to 21st October 1893.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fah.	TEMPERATURE.						HYGROMETRY.			Rainfall, past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
October	15th	29.898	84.3	90.5	12.4	78.1	86.6	80.5	.960	78.0	76	...
"	16th	.866	79.5	83.9	8.8	75.1	82.6	79.5	.963	78.3	87	...
"	17th	.948	80.1	84.9	9.6	75.3	78.6	75.5	.872	75.1	96	1.71
"	18th	.983	81.4	87.5	12.3	75.2	84.1	80.3	1.008	79.5	86	0.58
"	19th	.952	82.4	89.0	13.2	75.8	85.6	79.5	.927	76.9	76	0.15
"	20th	.954	80.7	88.0	14.7	73.3	84.1	78.5	.901	76.1	77	.
"	21st	.944	80.1	84.9	9.6	75.3	82.6	78.5	.921	76.7	83	...

The mean 10 A.M. pressure of the seven days ... .. Inches.  
29.934

The mean temperature of the seven days ... .. 81.2

The extreme variation of temperature ... .. 17.2

The maximum temperature ... .. 90.5

The mean 10 A.M. relative humidity of the seven days ... .. %  
83

The total fall of rain from 15th to 21st October 1893 ... .. Inches.  
2.44

The daily mean temperatures are the crude means of maximum and minimum temperatures.

METEOROLOGICAL OFFICE, INDIA,  
The 23rd October 1893.

J. H. GILLILAND,  
For Meteorological Reporter to the Govt. of India.



**Results of the Meteorological Observations taken at the Alipore Observatory from  
15th to 21st October 1893.**

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
		°		Inches.	°	°	°	°	°	Inches	°	%			Inches.	
Oct	15th	153.3	8.1	29.788	82.1	88.5	10.8	77.7	78.8	0.942	77.4	86	ENE, ENE and calm.	86	Nil	Partially cloudy, t, lr.
"	16th	115.0	Nil	.805	79.3	83.3	8.4	74.9	77.0	.900	76.0	90	E and ESE ...	159	0.59	Cloudy, o, g, d, p, t.
"	17th	134.0	0.7	.869	78.0	81.2	6.8	74.4	76.5	.895	75.9	93	ESE, and SSE ...	76	1.37	Cloudy, o, g, d, p, t.
"	18th	150.5	6.9	.898	79.4	85.4	10.3	75.1	77.5	.921	76.7	92	SSE and SSW ...	60	0.17	Partially cloudy, d, p.
"	19th	147.5	10.3	.880	80.5	85.7	10.3	75.4	77.8	.916	76.6	88	SSW, and WSW	47	Nil	Chiefly clear, d.
"	20th	148.0	7.3	.896	78.7	86.2	13.5	72.7	75.4	.837	73.9	85	WSW, NNW and calm.	30	"	Partially cloudy, d.
"	21st	148.1	7.2	.884	78.7	84.3	8.7	75.0	74.7	.807	72.8	82	ENE, and variable	124	0.05	Partially cloudy, o, d.

The mean pressure of the seven days ... .. 29.860

The average pressure of the corresponding period for 24 years, Surveyor-General's Office ... .. 29.863

The total number of hours of bright sunshine ... .. 40.5

The maximum possible number of hours of sunshine ... .. 80.8

The mean temperature of the seven days ... .. 79.5

The average temperature of the corresponding period for 24 years, Surveyor-General's Office ... .. 81.8

The extreme variation of temperature ... .. 15.8

The maximum temperature ... .. 88.5

The highest velocity of the wind in one hour ... .. 13

The highest pressure of wind on one square foot ... .. ?

The mean relative humidity ... .. 88

The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office ... .. 77

The total fall of rain from 15th to 21st October 1893 ... .. 2.18

The average fall of the corresponding period for 24 years, Surveyor-General's Office ... .. 0.85

The total fall from 1st January to 21st October 1893 ... .. 85.20

The average fall of the corresponding period for 24 years, Surveyor-General's Office ... .. 62.57

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 85, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o, overcast; g, gloomy; d, drizzling rain; p, passing temporary showers; t, thunder; lr, lightning reflection; d, dew.

Weekly Return of Traffic Receipts on Indian Railways.

BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIBHUT STATE RAILWAY.)

Approximate return of traffic for the week ending 7th October 1893, on 756 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-bunt.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs.	Mds.	Rs.	Rs.	Rs.			
Total traffic for the week on 756 miles open ... ..	80,620	34,270	297,700	36,964	8,870	79,000	17,330	10,306	27,726
Or per mile of railway ... ..	118'54	45'33	393'90	48'89	11'07	105'29	...	...	.....
For previous 14½ weeks of half-year* ... ..	1,230,063	4,80,307	3,121,421	4,10,021	1,21,594	10,11,922	208,697	100,150	308,777
Total for 15½ weeks ... ..	1,349,283	5,14,577	3,422,211	4,46,981	1,20,064	10,91,522	225,957	200,546	426,503
COMPARISON.									
Total for corresponding week of previous year on 755 miles open ... ..	81,264	33,112	263,206	40,373	9,277	82,762	13,832	14,065	27,597
Per mile of corresponding week of previous year ... ..	107'63	43'86	348'62	53'47	12'29	109'62	.....	.....	.....
Total to corresponding date of previous year ... ..	1,261,630	4,70,276	3,829,190	4,91,473	1,25,861	10,87,610	208,134	226,147	434,281

\* Includes audited figures up to 2nd September 1893.



# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, NOVEMBER 1, 1893.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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## RESOLUTION ON THE ANNUAL GENERAL ADMINISTRATION REPORT OF THE PATNA DIVISION FOR THE YEAR 1892-93.

### GENERAL DEPARTMENT.—MISCELLANEOUS.

*Darjeeling, the 28th October 1893.*

RESOLUTION.—No. 688T.—G.

READ—

The General Administration Report of the Commissioner of Patna for 1892-93.

Read also—

The Administration Report for 1891-92 and Resolution thereon.

Mr. D. R. Lyall was in charge of the Division from 1st April to 24th May, and was succeeded by the late Mr. Worsley, whose much lamented death occurred a fortnight later. Mr. Hopkins was in charge from the 6th to the 23rd June, and Mr. Forbes, by whom this report is submitted, for the rest of the year.

2. Under existing orders, Commissioners are required to be on tour at least four months in the year, to spend at least a fortnight in each district, and to inspect every

Tours and inspections. Collector's office and every sub-divisional office. The Commissioner of Patna was on tour for the prescribed period, but was unable to inspect the Saran district offices and the sub-divisional offices of Jahanabad, Barh, Dinapore, Siwan, and Gopalganj. Mr. Forbes says that the requirements of Government

in this respect cannot be fulfilled in his Division, in which distances are great and camp equipment and stores have often to be taken in bullock carts, thus causing serious waste of time. The Officiating Lieutenant-Governor admits that the inspection of all offices in the Patna Division is in average years difficult to accomplish consistently with the due despatch of the Commissioner's own onerous office duties at Bankipore. He has no doubt whatever that Mr. Forbes did as much as could, in the interests of general efficiency, be done in the way of inspection.

The Collectors of Patna, Gaya, and Shahabad, which are classified as large districts, should under the standing orders spend four months, and the Collectors of the other districts of the Division at least three months, every year on tour. Mr. Macpherson, the Collector of Gaya, complied with these orders and appears to have made useful tours and thorough inspections. The tours of the Collectors of Patna fell 10 days short of the prescribed minimum.

The Collectors of Shahabad were 124 days in camp; but out of this period a month was spent by Mr. Skrine at Dumraon in making preparations for an Agricultural Show. The Agricultural Show at Dumraon was not of such importance that it need have taken a month of the Collector's time to make preparations for it, and the Commissioner would have been justified in shortening the Collector's stay at Dumraon. The sub-divisional offices in this district were inspected only once in the year, which is unsatisfactory.

The Collectors of other districts spent more than the minimum prescribed periods in camp, and made biennial inspections of their sub-divisional offices; but it is not stated, except in the case of Mr. Hopkins, whether, as required by the Board's rules, they in the course of their tours inspected Government and Wards' estates and the settlements in progress in their districts. Such inspections are, in the Lieutenant-Governor's opinion, of great importance, and special reference should be made to them in future reports.

All Sub-divisional Officers appear to have complied with the orders of Government in regard to the duration of their tours.

3. The average rainfall for the whole Division (45.53 inches) was slightly above the normal, the fall in Champaran being considerably, that in Patna and Darbhanga slightly

above, and that in the other districts a little below, the normal. The rainfall was not, however, well distributed, being less than a fourth of the normal in May, followed by a heavy fall in the second week of June, and by dry weather for the rest of that month. The monsoon did not really break before the end of June. July was normal, the rainfall in August was almost double the normal, there was an untimely cessation of the rains in September, and a general failure of the *hateya* rains in October.

The bhadoi crops, which were backward owing to the late setting in of the monsoon, were in many places drowned by the excessive rains of August. The failure of the *hateya* rains affected the winter rice, which promised to be a bumper one, but turned out, according to the Commissioner's estimate, to be only a 12 to 13 anna crop. A larger area than usual was sown under rabi crops, and on the whole these crops promised well to the end of February, when several days of abnormally wet stormy weather, followed in March by east winds and damp cloudy weather, caused much damage and reduced the outturn to about 12 annas, or three-fourths of an average crop. The outturn of indigo was only half that of the previous year, and opium yielded only a 14-anna crop. The Commissioner remarks that the total produce of all crops of the year was somewhat above the average, a remark which is a little unintelligible, seeing that the yield of each harvest and of each crop in turn is said to have been less than the average.

4. Though the price of food-grains has, owing to the opening out of railways and roads and other causes, risen greatly in this Division in the past twenty years, there yet

appears to be no corresponding rise in the wages of unskilled agricultural labour. The wage of a common cooly is said to be now, as it was eighty years ago,  $1\frac{1}{2}$  to  $2\frac{1}{2}$  annas a day. This fact is all the more remarkable when it is remembered that in the districts of Dacca, Backergunge, Tippera, and Noakhali, which are almost as thickly populated as Bihar, nobody will work for less than 5 to 6 annas per day. The explanation probably lies in the facts that wages in

Bihar are still largely regulated by custom, that an element of compulsion still exists in some parts, and that many of the labourers hold patches of land which bind them down to the locality in which they live, "enabling them to exist upon smaller wages and to carry on their multiplication so much the further before reaching the point below which they cannot or will not descend."

5. The year was a particularly unhealthy one. A widespread and malignant epidemic of cholera occurred during the hot weather months. The exceptionally early dry season is supposed to have given rise to malarial emanations from the drying up of lands which in other years remained covered with water, and the undoubtedly straitened circumstances of a large number of the population assisted, according to Mr. Hare, the Collector of Muzaffarpur, the spread of cholera, fever, and other diseases. The wells also ran low, and the water available for drinking was impure.

The rate of registered deaths was 36·5 per thousand as against 29·3 in the preceding year. Part of this increase is, however, attributed to improvements made in the system of registration of vital statistics.

6. Much has been written as to the depressed condition of the masses of the people of this Division. The northern part of the Division is the blackest of the black spots in the famine map; wages are low; rents high, the population dense, poor and badly fed; distress and rumours of distress and starting of relief works are ever recurring characteristics of the local officers' annual reports. In the year under review, owing to widespread failure of the preceding year's rice and rabi crops, relief works had to be opened in the second week of March in Darbhanga and Muzaffarpur. By the middle of May no less than 22,000 people were on these relief works in Darbhanga, and 6,300 in Muzaffarpur, while by the end of the 1st week of June the numbers rose to 43,470 in the former and 14,147 in the latter district. Had the rains of 1891-92 not been favourable, as they happily were on the whole, "there is no doubt," Mr. Forbes remarks, "that famine would have at once crushed down upon these districts." The material condition of the people in Darbhanga and Muzaffarpur, especially during the first few months of the year, was, the Commissioner says, reduced to a low ebb, and their physical condition fell off in a marked degree, and this, Mr. Forbes adds, was particularly noticeable among the children. Though there were no deaths reported from actual starvation, the mortality among the old and infirm necessarily increased for want of proper nutrition. The Collector of Darbhanga, Mr. Williams, says "there can be no doubt that had the authorities not come to the rescue, the deaths from actual want of food would have been numerous." The state of things affords a sad commentary on the assertions which have been made that Government, in its endeavours to improve the agrarian system and impose some check on enhancements of rent in North Bihar, is unnecessarily interfering with private rights.

As bearing on the material condition of the people, Mr. Forbes notices that the registrations, sales, and mortgages of properties valued at Rs. 100 and upwards increased from 100,610 during the five years preceding the passing of the Tenancy Act to 157,130 during the five following years, while similar transactions in the case of petty properties valued at less than Rs. 100 increased from 57,466 to 197,489. As the Tenancy Act made no change in the previous law regarding the transfer of tenures and holdings, the increased number of transfers only indicates in rearing indebtedness and poverty of the raiyats, and the greater necessity that there is for assiduous watchfulness on the part of Government and the local officers in protecting them in the exercise of their legal rights.

7. The number of emigrants from the Division registered during the year was 2,695 to the Colonies and 1,211 to the tea districts —total 3,906—a number so insignificant that it may be safely asserted that emigration as a means of alleviating the condition of Bihar may, for the immediate future, be wholly left out of consideration. There is, apart from registered emigration, a considerable amount of unregistered emigration to the Duars and Assam, and a large annual exodus of labourers to the districts of Eastern Bengal for temporary employment. This annual migration, which resembles closely the annual migration to England of

harvesters from the congested counties of Ireland, is a source of much benefit to the people of Bihar. It has been fostered and facilitated by the improvements in road and railway communications which have made such great progress in recent years.

8. Omitting opium, the principal manufactures are indigo and saltpetre. Manufacture, Trade and Commerce. The outturn of indigo was only 42,404 maunds as against 83,600 in the previous year, but the value was about Rs. 30,000 per 100 maunds against Rs. 18,000 in 1891-92.

Speaking generally, trade was dull. Owing to fairly good harvests the importations of food-grains were less than in the preceding year, while owing to previous depletion of local food-stocks, there was less available for exportation.

The exports of salt to Nepal increased from 36,373 maunds in 1890-91 to maunds 1,00,724 in 1891-92 and to 1,72,528 in 1892-93. The increase is said to be due to the fact that the Nepalese now obtain their salt from British territory instead of Thibet.

9. The total number of original suits disposed of by District Judges and Subordinate Judges was 2,898 against 2,870 in 1891-92.

The following table shows the working of the Munsif's courts :—

DISTRICT.	Sub-division or chauki.	Description of Court.	Number of officers.	NUMBER OF ORIGINAL CASES DISPOSED OF.		DETAILS OF CASES IN COLUMNS 5A AND 5B.			Number of witnesses examined.	Ratio of witnesses detained over two days to per cent. of witnesses examined.	Ratio of cases pending at end of year to per cent. of cases disposed of.
				Ordinary.	Small Cause Court.	Money.	Rent.	Title.			
1	2	3	4	5A	5B	6	7	8	9	10	11
Patna ... ..	Sadar ... ..	Munsif ... ..	5	2,508	1,086	1,615	1,580	300	3,574	14.6	31.8
	Bihar ... ..	Do. ... ..	1	597	...	194	311	92	620	7.4	31.6
Gaya ... ..	Sadar ... ..	Do. ... ..	3	1,170	7	417	632	237	2,298	49.1	23.0
	Aurangabad ... ..	Do. ... ..	1	481	50	201	207	60	1,054	27.7	24.5
Shahabad ... ..	Sadar ... ..	Do. ... ..	3	3,285	359	858	2,322	464	4,301	19.0	23.7
	Buxar ... ..	Do. ... ..	1†	1,560	104	181	1,129	383	2,309	19.2	30.4
	Susarran ... ..	Do. ... ..	1†	1,361	201	663	717	192	1,892	24.2	14.3
	Bhabua ... ..	Do. ... ..	1	7	...	...	7	...	13	...	485.7
Muzaffarpur ... ..	Sadar ... ..	Do. ... ..	2	2,036	080	1,309	1,239	177	4,298	19.9	10.4
	Hajipur ... ..	Do. ... ..	1	1,216	187	389	805	700	1,263	28.0	18.8
	Sitamarhi ... ..	Do. ... ..	1	1,386	...	615	617	164	1,704	34.0	11.3
Darbhanga ... ..	Darbhanga ... ..	Do. ... ..	1	703	204	470	328	103	775	9.6	14.8
	Madhubani ... ..	Do. ... ..	1	1,341	...	468	785	88	1,634	16.6	13.5
	Somastipur ... ..	Do. ... ..	1	1,218	840	1,273	661	134	1,635	26.4	38.9
		Assistant Munsif ... ..	1	718	...	256	362	100	1,183	22.9	5.4
Barran ... ..	Sadar ... ..	Munsif ... ..	3	4,027	437	1,064	2,985	415	5,485	25.9	13.8
	Niwan ... ..	Do. ... ..	1	1,099	228	731	477	129	1,867	6.6	19.2
	Gopalganj ... ..	Do. ... ..	1	901	...	511	330	60	1,051	18.0	46.6
Champaran ... ..	Motihari ... ..	Do. ... ..	2	2,720	1,315	2,147	1,656	232	2,811	23.6	14.4
		Total for 1892-93 ... ..	32	28,352	5,713	13,388	17,140	3,537	40,405	22.6	21.2
		Total for 1891-92 ... ..	20†	29,427	8,546	11,003	17,747	3,323	113,086 attended.	17	25

\* The fraction means that an officer was employed for the fractional part of the year.

† Disposed of by the Subdivisional Officer of Bhabua.

The number of money suits shows an increase of 1,485, and that of rent suits a decrease of 607 as compared with the previous year. With a population of 15,811,014 persons, mainly agricultural, the total number of rent suits was 17,140, or little more than 1 per thousand of the population, or say one suit for every 200 holdings, while the Chittagong Division shows 31,237 rent suits, with a population of only 4,189,886, or 7 per thousand of the population, or one case for every 28 holdings. The great disparity in these figures indicates clearly either that rents are easily paid in Bihar, or that other methods than recourse to the civil courts are resorted to in order to realize them. The probability is that the latter explanation is the true one.

10. The following tables exhibit the principal statistics relating to the Criminal Justice and Police. criminal work of the Division :—

## Statements of work done by Stipendiary Magistrates.

DISTRICT.	Sub-division.	Class of officers.	Number of officers.	Cases disposed of.	Persons disposed of.	Ratio per cent. of persons convicted to disposed of.	Number of witnesses examined.	Ratio per cent. of witnesses detained over two days to total number examined.	Ratio per cent. of decisions confirmed on appeal to total appealed.	Number of cases disposed of.	Number remanded six times and more.	Average number of cases disposed of per officer.	Average number of witnesses examined in each case.	Ratio per cent. of column 12 to column 11.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Patna	Sadar	Stipendiary	6	1,124	1,337	61.9	1,650	3.8	46.8	669	29	187	4	4.7
	Barh	Ditto	1	291	174	29.4	1,584	10.7	72.4	175	19	591	3	10.8
	Bihar	Ditto	1	636	1,051	53.1	3,393	7.4	74.8	268	8	424	6	2.9
	Dumraon	Ditto	1	1,107	1,775	86.1	636	5.9	53.3	123	6	141	4	4.8
Gaya	Sadar	Ditto	6	1,349	1,801	66.5	1,981	5.5	7.2	4.8	17	210	4	3.7
	Jahmabad	Ditto	1	398	526	64.8	946	22.4	85.5	175	12	208	4	6.4
	Nawada	Ditto	1	317	445	62.0	815	5.3	85.7	125	12	214	4	1.6
	Aurangabad	Ditto	1	398	575	55.8	1,867	5.8	63.1	231	25	318	4	10.8
Shahabad	Sadar	Ditto	6	1,661	1,335	54.5	1,861	3.6	88.4	225	10	164	4	4.4
	Sasaram	Ditto	1	390	471	64.0	2,597	3.6	23.4	112	10	195	4	1.5
	Ruxari	Ditto	2	610	803	76.6	1.7	15.4	71.9	169	3	3.9	3	4.8
	Bhadda	Ditto	1	325	423	68.2	1,163	4.5	87.8	37	3	325	3	8.1
Muzaffarpur	Sadar	Ditto	6	1,424	1,065	67.1	3,990	8.7	85.6	385	5	171	4	1.4
	Hajipur	Ditto	2	797	1,334	64.0	1,479	16.4	66.2	235	34	363	3	17.4
	Sitamarhi	Ditto	1	870	1,088	64.4	3,150	6.1	91.5	264	4	580	1	1.4
Darbhanga	Sadar	Ditto	6	964	1,751	19.9	8,428	7.6	13.7	380	23	187	9	7.4
	Sasaram	Ditto	1	789	1,134	66.0	1,924	1.3	23.1	254	13	314	3	5.3
	Madhubani	Ditto	1	946	880	4.9	1,608	2.0	18.8	190	12	247	3	3.6
Saran	Sadar	Ditto	7	2,715	3,683	6.8	7,913	8.6	85.1	981	19	188	3	6.7
	Siwan	Ditto	1	1,240	1,437	64.1	1,713	1.1	93.1	397	4	664	3	1.3
	Chhapra	Ditto	1	1,438	1,288	7.4	2,501	4.3	96.1	390	4	867	3	1.3
Champaran	Sadar	Ditto	3	1,661	2,452	74.1	1,426	3.7	33.7	804	21	554	4	2.5
	Patna	Ditto	1	1,307	1,317	64.3	1,994	2.1	98.7	77	6	64	4	1.1
	Total for 1891-92	Ditto	35	21,804	27,226	64.1	77,114	5.4	81.7	6,614	274	3,336	3.6	4.1
Total for 1891-92			35	18,244	21,740	66.7	87,154	5.4	76.7	5,810	377	2,771	3.3	5.7

## Statement of work done by Honorary Magistrates.

DISTRICT.	Sub-division.	Class of officers.	Number of officers.	Cases disposed of.	Persons disposed of.	Ratio per cent. of persons convicted to disposed of.	Number of witnesses examined.	Ratio per cent. of witnesses detained over two days to total number examined.	Ratio per cent. of decisions confirmed on appeal to total appealed.	Number of cases disposed of.	Number remanded six times and more.	Average number of cases disposed of per officer.	Average number of witnesses examined in each case.	Ratio per cent. of column 12 to column 11.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Patna	Sadar	Honorary	3	1,681	1,919	88.0	1,610	3.7	55.5	2	1,560	1	1.2	...
	Barh	Ditto	1	430	47	10.9	164	3.6	57.1	...	450	1	3.4	...
	Dumraon	Ditto	1	561	607	81.2	287	2.9	69	29	555	1	3.1	...
	Dumraon	Ditto	2	1,103	1,446	89.7	535	...	42.8	13	551	3	3.1	...
Gaya	Sadar	Ditto	3	1,488	1,625	77.2	1,739	1.93	59	4	496	1	1.1	...
	Jahmabad	Ditto	1	72	62	51.6	77	...	...	...	11	1.2	...	...
	Nawada	Ditto	1	61	69	23.1	128	21	190	...	30	3	...	...
	Aurangabad	Ditto	1	...	...	...	...	...	...	...	...	...	...	...
Shahabad	Sadar	Ditto	12	253	383	37	122	...	100	...	126	1.2	...	...
	Sasaram	Ditto	1	44	45	24.4	100	2.7	50	...	14	1.2	...	...
	Ruxari	Ditto	12	197	138	43.6	44.4	13.7	...	15	4	3	...	...
	Bhadda	Ditto	1	34	41	39.1	116	...	...	...	61	3	...	...
Muzaffarpur	Sadar	Ditto	1	2,092	2,396	73.4	1,518	1.9	50	10	2,098	3	10	...
	Hajipur	Ditto	1	141	1,092	1.1	548	4.9	...	...	127.3	2.9	...	...
	Sitamarhi	Ditto	1	100	122	11.0	75	7.05	100	13	239	2.9	...	...
Darbhanga	Sadar	Ditto	4	2,548	2,657	77.1	1,791	...	50	...	657	1	...	...
	Sasaram	Ditto	1	93	153	10.3	...	21.7	42.8	33	3	5.1	...	...
	Madhubani	Ditto	3	975	1,091	55.1	1,150	1.3	46.1	1	187	1.1	...	...
Saran	Sadar	Ditto	2	789	1,049	52.4	914	1.91	85.7	1	314	1	...	...
	Siwan	Ditto	1	396	423	66.1	631	1.5	50	7	336	1	...	...
Champaran	Sadar	Ditto	1	151	218	11.9	495	2.4	30	...	151	3.1	...	...
	Patna	Ditto	1	213	210	86.1	181	...	...	...	213	2.1	...	...
Total for 1891-92			33	17,113	19,168	76	14,050	3.3	57.8	131	16	511.6	1.8	1.2
Total for 1891-92			35	14,152	17,788	76	12,188	1.8	56	182	10	444	1	5

The average number of cases disposed of by each Stipendiary Magistrate was 326, the smallest number being at Arrah. Five other courts also fell below 200 cases per officer, all but one of which were at head-quarters.

The ratio per cent. of witnesses detained by Stipendiary Magistrates over two days to the total number examined was 5·4 as against 5; and by Honorary Magistrates 3·35 as against 1·8 in the previous year. The Officiating Lieutenant-Governor regrets to have to notice a falling off in this respect, especially in Jahanabad, Hajipur and Barh, where 22·4, 16·8 and 10·7 per cent. respectively of the witnesses were detained for more than two days.

The number of cognizable offences reported increased from 32,946 in 1891-92 to 40,035 in the year under review, or by more than 21 per cent. The number of non-cognizable offences also increased from 17,922 to 18,920. The increase in cognizable crime was partly due to the prevailing distress in Gaya, Darbhanga, Muzaffarpur and Patna, and partly to the greater activity on the part of the police, District Boards, and Municipal Commissioners in prosecuting for public nuisances, and offences against bye-laws.

There were 18 cases of drugging during the year, of which 8 occurred in Saran, and 2 of these were committed with *datura*, the medium being tobacco, by a lad of 18 years, who was proved to have been at the trade for years. An alarming outbreak of dacoity occurred in Gaya, which, however, has been suppressed by an organised system of police patrols, and by requiring a number of the most dangerous bad characters to give security for good behaviour.

Of the Mugheya Domes, who are the most inveterate criminals of the Division, 91 absconded from their settlements, and 31 were convicted of house-breaking and theft. The total number of reported offences is 58,955 with a population of nearly 16 millions, or about 3½ per thousand.

11. The statement below gives the attendance of Honorary Magistrates by districts:—

District.	Number of Honorary Magistrates.	Number of times asked to attend.	Number of actual attendance.	NUMBER OF ABSENCES		
				With leave or notice.	Without leave or notice.	Total.
1	2	3	4	5	6	7
Patna ...	66	2,972	2,131	361	527	888
Gaya ...	71	800	583	97	120	217
Shahabad ...	57	1,017	748	111	158	269
Muzaffarpur ...	40	1,757	1,248	250	259	509
Darbhangha ...	82	1,364	729	175	460	635
Saran ...	16	401	336	48	17	65
Champaran ...	16	286	211	7	68	75
Total ...	348	8,597	5,986	1,049	1,609	2,658

The attendance of the Honorary Magistrates has been fairly satisfactory, though there is room for improvement.



## 12. The following table shows the working of the Sessions Courts:—

	Districts.							Total.
	Patna.	Gaya.	Shahabad.	Muzaffarpur.	Darbhanga.	Saran.	Champanan.	
1	2	3	4	5	6	7	8	9
Number of cases committed during the year ...	60	60	38	42	52	40	52	348
Number disposed of ...	63	47	33	44	54	48	50	339
Number in which conviction obtained ...	43	23	28	28	31*	35	44	232
Of above, in which sentence was modified or reversed by High Court.	5	6	3	...	3	5	...	25
Number of cases acquitted by Sessions Judge ...	18	20	7	16	20*	15	6	103

\* 1 One otherwise disposed of.

The percentage of cases in which convictions were obtained was 69.2 against 66.6 in the previous year.

## 13. The fines imposed and realized were as follows:—

*	Districts.							Total.
	Patna.	Gaya.	Shahabad.	Muzaffarpur.	Darbhanga.	Saran.	Champanan.	
1	2	3	4	5	6	7	8	9
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Balance of fines due at the commencement of the year ...	10,951 2 9	13,343 9 6	7,110 0 8	6,926 9 11	8,243 14 5	16,341 12 10	11,140 7 8	73,966 9 9
Amount imposed during the year ...	23,004 12 0	23,000 10 0	10,933 0 9	18,216 6 6	13,517 1 6	24,860 11 1	15,575 8 0	1,39,118 2 7
Amount collected during the year ...	10,205 13 8	12,354 2 9	17,292 3 1	14,404 3 1	10,364 8 8	19,942 7 6	11,223 8 9	1,04,641 18 6
Amount remitted or written off ...	3,161 14 0	8,473 0 0	1,023 11 6	2,410 0 0	2,027 4 0	7,675 0 2	1,004 2 0	28,083 15 8
Balance of fines pending at the end of the year ...	12,518 3 10	15,018 0 9	8,127 2 10	8,238 13 4	8,400 8 3	13,375 0 3	14,402 4 11	80,179 3 3

In Saran alone was the balance at the end of the year less than at the beginning.

Registration.

## 14. The following table shows the number of registrations in each district:—

DISTRICT.	Class of Registration office.	Number of offices.	Number of documents registered.	Average number of documents registered.
1	2	3	4	5
Patna ...	Special ...	1	6,513	2,332
	Rural ...	5	7,484	
Gaya ...	Special ...	1	4,192	1,599
	Rural ...	4	3,807	
Shahabad ...	Special ...	1	5,666	2,836
	Rural ...	4	8,515	
Muzaffarpur ...	Special ...	1	6,651	3,916
	Rural ...	6	20,763	
Darbhanga ...	Special ...	1	4,282	2,499
	Rural ...	7	15,711	
Saran ...	Special ...	1	8,076	3,196
	Rural ...	6	14,297	
Champanan ...	Special ...	1	5,818	4,145
	Rural ...	4	14,911	
Total ...	Special ...	7	41,198	5,885
	Rural ...	36	85,488	2,374
Total for 1891-92 ...	Special ...	7	72,396	10,342
	Rural ...	32	42,410	1,325

The number of documents registered increased from 114,806 in 1891-92 to 126,686 in the year 1892-93. This increase is shared by all districts except Saran, where there was an unusually large number of registrations in 1889-90, and is no doubt largely due to the advancing popularity of the system. There was a marked increase in Darbhanga, "owing mainly," the Collector says, "to the prevalence of scarcity and to the registration of cultivators' leases in favour of the Maharaja of Darbhanga, the Mohant of Panchbari, Rai Gunga Pershad, and the Babus of Madhubani, probably in anticipation of the cadastral survey operations about to begin in the district." The Officiating Lieutenant-Governor has lately had one of these so-called leases, or *sharanamahs*, submitted to him in connection with a question of stamp duty, and regrets to have to notice that some of the conditions contained in it were wholly inconsistent with the law.

15. The following statement shows the demands and collections, land revenue and cesses of the districts of the Division :—

DISTRICT.	Class of demand	Class of estates.	Number of estates.	DEMAND.		COLLECTIONS OF 1892-93.		BALANCE ON 1ST APRIL 1893.		REMARKS.
				Current.	Arrear.	Current.	Arrear.	Current.	Arrear.	
1	2	3	4	5	6	7	8	9	10	11
Patna	Land Revenue	I	10,238	Rs. 11,08,979	Rs. 1,01,918	Rs. 12,50,638	Rs. 1,63,805	Rs. 1,58,281	Rs. 148	Remitted Rs. 1,717
		II	32	10,356	3,121	10,333	2,332	6,023	1,029	
		III	52	54,438	26,944	36,124	21,876	18,314	551	
		Total		11,70,773	1,34,313	12,97,155	1,91,073	1,89,618	1,523	
	Road Cess	Estates	17,812	3,57,780	97,682	2,79,171	87,316	78,618	6,354	Remitted Rs. 3,342
	Zamindari Dak	Rent-free tenures	6,476	6,666	333	6,094	208	582	127	
		Total		18,44,168	2,92,310	15,82,550	2,78,607	2,61,818	8,001	
Gaya	Land Revenue	I	6,053	Rs. 13,30,918	Rs. 7,189	Rs. 13,31,271	Rs. 6,865	Rs. 25,687	Rs. 386	Remitted Rs. 12,929
		II	19	41,900	6,053	38,573	5,135	3,879	913	
		III	44	92,574	28,836	74,273	9,471	18,121	9,116	
		Total		14,11,521	42,078	14,21,671	18,471	47,447	10,720	
	Road Cess	Estates	6,274	4,47,732	1,85,617	3,62,024	1,27,121	85,708	58,104	Remitted Rs. 12
	Zamindari Dak Cess	Rent-free tenures	8,229	14,650	2,796	13,611	1,739	1,639	1,027	
	Embankment Cess		3,360	20	58		47	20	11	
		Total		19,33,983	2,30,519	17,39,703	1,47,637	1,34,274	9,964	
Shahabad	Land Revenue	I	7,144	Rs. 15,07,413	Rs. 1,08,514	Rs. 13,59,385	Rs. 1,08,514	Rs. 1,48,688	Rs. 7,099	Remitted Rs. 883
		II	386	1,23,312	28,214	1,01,000	21,135	21,132	331	
		III	82	61,781	11,271	50,637	11,271	11,144	...	
		Total		16,92,640	1,47,989	15,11,782	1,40,989	1,80,864	7,099	
	Road Cess	Estates	11,105	3,65,010	43,731	3,41,560	31,469	21,500	11,639	Remitted Rs. 383
	Zamindari Dak Cess	Rent-free tenures	5,896	8,290	1,704	7,560	1,701	1,330	3	
		Total		20,05,996	1,93,424	18,61,104	1,74,050	2,04,834	18,461	
Muzaffarpur	Land Revenue	I	18,551	Rs. 9,00,501	Rs. 15,730	Rs. 9,51,920	Rs. 15,654	Rs. 8,641	Rs. 82	Remitted Rs. 70
		II	111	13,729	2,287	10,671	1,812	3,619	375	
		III								
		Total		9,71,281	18,023	9,62,591	17,466	11,690	457	
	Road Cess	Estates	22,656	3,89,057	1,34,913	3,04,334	1,11,084	84,723	22,738	Remitted Rs. 1,107
	Zamindari Dak Cess	Rent-free tenures	110	9,354	3,173	7,407	2,042	1,917	531	
	Embankment Cess		10,799	8,304	17,496	3,636	12,270	4,698	5,006	
		Total		13,80,996	1,73,476	12,77,978	1,13,402	1,03,018	28,912	
Darbhanga	Land Revenue	I	11,773	Rs. 7,89,244	Rs. 2,741	Rs. 7,87,189	Rs. 2,731	Rs. 2,075	...	Remitted Rs. 384
		II	10	3,331	1	2,603	1	615	...	
		III	2	2,802	76	2,709	70	33	...	
		Total		7,95,377	2,818	7,92,004	2,808	2,773	...	
	Road Cess	Estates	12,499	4,13,388	66,878	3,61,626	51,405	51,762	15,883	Remitted Rs. 384
	Zamindari Dak Cess	Rent-free tenures	2,7	4,415	1,300	2,719	1,061	1,616	329	
	Embankment Cess		2,262	6,729	6,095	1,975	3,436	6,654	3,199	
		Total		12,10,969	77,771	11,58,104	58,460	61,855	18,911	
Saran	Land Revenue	I	4,764	Rs. 12,41,295	Rs. 37,584	Rs. 12,22,956	Rs. 31,188	Rs. 18,339	Rs. 4,094	Remitted Rs. 384
		II	75	17,690	4,255	15,362	3,715	2,218	549	
		III	15	8,828	8,314	2,604	7,412	6,164	972	
		Total		11,07,723	50,153	12,40,972	44,945	26,751	5,634	
	Road Cess	Estates	12,059	3,31,514	1,40,902	2,38,851	1,15,730	95,613	25,172	Remitted Rs. 384
	Zamindari Dak Cess	Rent-free tenures	103	9,157	8,288	6,461	4,230	2,750	4,028	
	Embankment Cess		12,168	23,060	14,485	16,361	7,128	8,659	7,337	
		Total		16,35,294	2,13,828	15,01,522	1,71,333	1,33,700	42,191	

DISTRICT.	Class of demand.	Class of estates	Number of estates	DEMAND.		COLLECTIONS OF 1892-93.		BALANCE OF LAST YEAR.		REMARKS.
				Current.	Arrear.	Current.	Arrear.	Current.	Arrear.	
1	2	3	4	5	6	7	8	9	10	11
Champaran	Land & venue	I	1,182	Rs. 5,14,619	Rs. 64,923	Rs. 5,11,348	Rs. 1,042	Rs. 2,981	Rs. 62,981	Remitted Rs. 132.
		III		1,397	210	906	210	208		
		Total		5,16,016	64,233	5,11,254	1,252	2,929	62,981	
	Bail Cess Zamindari Dak Cess Embarkment Cess	I states	1,238	1,75,714	42,405	1,22,571	42,145	53,147	247	Remitted Rs. 38
		Rest free tenures	12	7,650	884	6,887	884	763		
		Total	931	19,000	1,627	10,701	1,567	2,999	300	
				7,17,284	1,09,149	6,52,423	43,548	59,798	68,588	
		GRAND TOTAL FOR 1892-93		1,07,02,630	12,90,406	98,33,101	10,10,021	9,59,316	2,40,819	Total remitted Rs. 21,171.
		Total for 1891-92		1,07,12,227	13,03,011	97,39,002	10,05,601	9,62,001	2,94,976	Total Rs. 4,849

The current collections of revenue in permanently-settled estates, class I, for the Division as a whole amounted to only 95·3 per cent on the current demand. The prescribed standard, 99 per cent, was only reached in Darbhanga and Champaran, while in Patna the realizations on account of the current year's demand amounted to only 88·7, and in Shahabad to 90·17 per cent of the current demand. These results cannot be said to be satisfactory. The short collections are attributed to the bad rabi harvest; but seeing that the Commissioner reports that the harvests on the whole were little if at all below the average, the Lieutenant-Governor considers that no sufficient reason has been given for failure to realize the Government revenue. The attention of the Board of Revenue will be specially drawn to the matter.

The arrear collections were also below the prescribed standard in Gaya, Saran and Champaran. In the last-named district there is a large outstanding balance owing to embezzlements now under enquiry. In the case of estates temporarily settled (class II), the collections were in every district below the standard of 95 per cent., and were particularly bad in both Government and private estates leased to farmers. The Officiating Lieutenant-Governor does not understand why there should be any difficulty in realizing Government dues from those farmers, and does not see what merits there can be in this system of management if it does not secure the punctual payment of the revenue.

The realizations in estates managed by Government direct (class III) were also far below the standard prescribed for this class, which is 90 per cent., the collections for the Division as a whole being only 67·46 per cent. in estates managed for proprietors, and 76·40 in estates owned by Government as proprietor. In Darbhanga alone was the standard reached, while in Saran the collections amounted only to 58·31, and in Gaya 66·44 of the demand.

Taking the Division as a whole, the demand of land revenue, current and arrear, was Rs. 87,16,831, and the collections Rs. 81,57,728, leaving an outstanding balance, after deducting remissions, of Rs. 5,13,966, or Rs. 24,690 in excess of that of the previous year. This is not satisfactory, and calls for the special attention of the Board of Revenue.

16. Out of a gross demand of Rs. 31,95,446, a sum of Rs. 25,76,807 was realized and Rs. 6,031 remitted, leaving a balance at the close of the year of Rs. 6,12,608. Compared with the previous year there was an improvement, except in Darbhanga and Champaran; but it is curious to note that Shahabad, which fell so far short of the prescribed standards in the realization of the Government revenue, alone reached that standard in the collection of cesses. The Lieutenant-Governor will be glad to know whether in the Shahabad district there was any priority given to cesses in the crediting of moneys paid in.

17. Eight thousand and eight estates and shares of estates became liable to sale, but of these 337 or 4·2 per cent. were actually sold. It is clear that the Sale Law was worked with leniency.

Certificate procedure.

18. The following statement shows the working of the Certificate Department:—

DISTRICT.	Department.	Number pending at beginning of year.	Number issued during year.	Total for disposal.	Amount of certificates.	Number disposed of during year.	Amount realized.	Number pending at close of year.
1	2	3	4	5	6	7	8	9
Patna	Road cess	1,551	3,993	5,454	Rs. 53,138 5 0	3,753	Rs. 57,612 8 6	1,699
	Court of Wards	17	63	70	0,804 0 2	54	4,252 9 4	16
	Zamindari dak cess	21	261	281	183 4 3	273	142 1 4	68
	Government estates	394	408	732	21,701 14 1	640	12,563 13 7	92
	Barwara	52	470	522	17,643 1 7	361	11,135 1 10	161
	Embankment cess	151	151	302	5 4 6 7	141	513 6 5	10
	Process fees	2,112	2,112	4,224	1,684 12 9	1,288	960 12 6	824
	Miscellaneous	231	185	416	6,835 8 0	300	1,700 7 11	19
	Total	2,218	7,513	9,731	1,18,286 10 5	6,802	88,888 11 8	2,869
	Total for 1891-92	3,024	4,272	7,296	1,61,045 0 0	5,504	99,478 0 0	2,292
Gaya	Road cess	1,758	4,543	6,301	2,21,373 0 0	5,430	1,18,340 0 0	871
	Court of Wards	180	205	385	65,320 0 0	356	10,535 0 0	29
	Zamindari dak cess	195	305	500	3,397 0 0	296	1,257 0 0	204
	Government estates	97	177	274	10,209 0 0	145	5,080 0 0	31
	Miscellaneous	65	1,523	1,588	80,733 0 0	553	6,715 0 0	1,040
	Total	2,295	6,661	8,956	3,61,082 0 0	6,781	1,41,927 0 0	2,175
Shahabad	Road cess	795	2,084	2,879	58,186 0 0	1,535	40,036 0 0	1,324
	Court of Wards	133	191	324	32,727 0 0	280	10,072 0 0	44
	Government estates	48	174	222	5,417 0 0	167	4,393 0 0	55
	Under sections 5 and 7	281	692	973	41,059 0 0	627	21,701 0 0	244
	Total	1,257	3,051	4,308	1,37,389 0 0	2,611	92,401 0 0	1,668
	Total for 1891-92	4,208	7,703	11,911	1,97,768 0 0	10,552	1,33,207 0 0	1,409
Muzaffarpur	Road cess	1,053	3,054	4,107	1,03,081 0 5	3,135	79,809 15 8	914
	Court of Wards	64	29	93	3,440 7 4	70	2,393 6 2	5
	Zamindari dak cess	27	707	734	1,777 11 3	781	1,001 8 4	43
	Government estates	2	36	38	2,823 8 6	24	2,152 1 6	14
	Barwara	52	261	313	9,508 6 5	211	5,377 0 3	102
	Embankment cess	540	1,044	1,584	9,187 11 0	2,097	7,868 10 0	387
	Miscellaneous	12	17	29	470 5 5	4	77 0 6	13
	Zarfaraz	33	30	63	3,482 3 10	15	560 15 9	24
	Ferry	56	5	61	14,818 13 2	20	925 5 4	18
	House	20	70	90	2,745 15 4	58	479 10 0	18
	Famine advance	125	125	250	30,893 14 4	1 6	17,010 2 6	19
	Pound	3	3	6	70 14 0	.....	.....	3
	Land registration fees	34	232	266	3,373 12 0	153	920 8 0	103
	Total	1,873	6,533	8,406	1,47,148 11 0	6,743	1,10,183 4 0	1,863
Darbhanga	Road cess	3,055	6,077	9,132	83,004 2 0	6,656	48,308 3 4	2,476
	Zamindari dak cess	103	716	819	1,950 14 7	655	1,410 9 2	254
	Embankment cess	384	1,061	1,445	6,325 12 6	1,943	3,673 4 6	703
	Miscellaneous	606	858	1,464	40,406 0 9	1,092	18,622 5 114	462
	Revaluation	.....	1,103	1,103	8,91,994 0 0	650	1,045 12 0	658
	Total	4,308	10,715	15,023	5,29,880 13 10	10,596	79,500 2 114	4,447
Saran	Road cess	1,119	4,141	5,260	1,48,970 0 0	3,307	83,050 0 0	1,953
	Zamindari dak cess	348	274	622	3,804 0 0	361	1,091 0 0	245
	Government estates	110	86	196	2,563 0 0	137	1,525 0 0	59
	Embankment cess	.....	1,217	1,217	15,368 0 0	266	2,000 0 0	951
	Miscellaneous	669	1,001	1,670	1,41,358 0 0	1,406	31,544 0 0	563
	Water-rate	443	443	886	1,149 0 0	443	124 0 0	1
Champanan	Takevi	680	1,130	1,810	57,095 0 0	865	25,038 0 0	954
	Total	3,660	7,853	11,513	3,09,737 0 0	6,307	1,44,441 0 0	4,728
	Total for 1891-92	4,992	3,174	8,166	2,25,575 0 0	4,566	61,705 0 0	3,680
	Road cess	588	1,853	2,441	57,025 0 0	1,748	27,073 0 0	600
	Court of Wards	.....	.....	.....	.....	.....	.....	.....
	Miscellaneous	.....	.....	.....	.....	.....	.....	.....
Grand Total	Total	588	1,850	2,438	57,025 0 0	1,748	27,073 0 0	600
	Total for 1891-92	878	2,045	2,923	54,587 0 0	2,332	38,163 0 0	591
	GRAND TOTAL	16,231	44,146	60,377	13,77,226 3 4	42,118	6,87,404 3 14	18,259
GRAND TOTAL, 1891-92*		18,120	36,310	54,430	13,77,098 0 0	28,135	6,41,341 0 0	16,805

\* This total does not agree with the grand total for 1891-92 given by the Commissioner.

The total number of certificates issued increased from 36,505 to 44,146. It was only in Muzaffarpur and Gaya that the disposals kept pace with the institutions. The bulk of these certificates were issued for the recovery of cesses under Act IX of 1880, and the Lieutenant-Governor is glad to observe that the issue of certificates for recovery of rent in Wards' and Government estates was sparingly resorted to.

19. The disposals exceeded the institutions in all districts except Gaya. Sir Antony MacDonnell trusts that the orders recently issued by the Board, under Sir Charles Elliott's instructions, will cause partitions to be carried on in a systematic

Partitions.

manner, and that care will be taken that these proceedings are not allowed to be abused, as they hitherto have been, for the purpose of bringing about illegal and improper enhancements of rent.

20. Under this head the Commissioner notices that 889 notices were given by landlords under section 87 of the Act of their intention to treat holdings as abandoned; 116 of these were in Darbhanga and 667 in Champaran, against 6 in the former and none in the latter during the previous year. This is by no means a satisfactory feature of the year's report, for the voluntary desertion of their holdings by tenants indicates either that they had no substantial interest in their lands, or that they were so heavily embarrassed that they found it necessary to go away by stealth. This "absconding" of tenants, which is one of the well-known results of scarcity in North Bihar, should be closely watched by the local officers.

21. The excise revenue increased by Rs. 1,43,266, that from stamps by Rs. 17,899, and the demand for income-tax by Rs. 11,827. The following table gives the excise statistics of the year:—

DISTRICT.	COUNTRY SPIRITS.				GANJA AND SHANG.				OPIUM.				TARI.		
	Number of shops.	License fees.	Gross gallons.	Total receipts.	Number of shops.	License fees.	Gross maunds.	Total receipts.	Number of shops.	License fees.	Gross maunds.	Total receipts.	Number of shops.	License fees.	Total receipts.
Patna	119	Rs. 2,71,805	9,28,179	Rs. 3,73,054	64	Rs. 20,091	484	Rs. 1,19,493	30	806	454	Rs. 16,549	2,986	Rs. 1,35,548	Rs. 1,35,548
Gaya	108	3,10,675	1,242,710	3,45,017	79	23,018	279	46,888	51	253	194	7,068	2,771	1,33,413	1,33,413
Shahabad	109	1,03,204	763,805	1,78,843	104	33,002	400	1,08,716	27	486	7	2,956	583	27,651	27,651
Muzaffarpur	96	96,507	320,144	1,05,706	50	11,720	108	37,391	27	398	12	4,758	1,726	92,580	92,580
Darbhangha	84	60,081	110,805	67,213	70	20,756	139	51,894	20	220	144	5,338	1,151	75,837	75,837
Saran	103	1,75,507	782,528	1,07,586	55	15,182	239	70,140	29	185	4	1,576	1,106	52,170	52,170
Champaran	95	1,12,390	667,688	1,18,546	70	28,004	178	75,082	11	163	24	1,053	437	22,186	22,186

	Revenue from all sources.	Rate per head of population.
	Rs.	A. P.
Patna	6,40,215	5 10
Gaya	5,37,074	4 0
Shahabad	3,19,830	3 5
Muzaffarpur	2,42,196	1 5
Darbhangha	2,01,346	1 1
Saran	5,22,364	2 1
Champaran	2,16,226	1 10
Total of Division, 1892-93	24,68,232	2 6
Total of Division for 1891-92	23,41,744	2 5

The comparatively high rate of incidence per head of the population in Gaya, is noticeable, as Gaya, owing to the prevalence of the *baouli* or *metayer* rent system, is in a depressed condition. But undoubtedly Darbhanga is very wretched, and this is indicated by the inability of the people to afford any luxuries. The insignificance of the revenue from opium in the great opium-producing area is remarkable. Either the people are not opium-consumers, or they manage to secrete from the produce of their fields sufficient for their wants. The Lieutenant-Governor thinks the people of Bihar are not opium-consumers to any considerable extent. There may be some secretion of opium, but the opinion is that it cannot be considerable.

Education.

22. The following table gives the principal Educational statistics of public institutions in the Division:—

DISTRICT.	Class of schools.	Number of schools.	Number of pupils on rolls.	Cost.							Cost per head of pupil.	Population of the district.	Number of boys of school-going age at 15 per cent. of male population.	Percentage of boys at school to total boys of school-going age.
				Provincial.	District Board.	Municipality.	Fees.	Other.	Total.					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Patna	High	12	2,614	Rs. 10,668	Rs. 1,140	Rs. 45,508	Rs. 13,347	Rs. 70,683	Rs. 27 0 7	1,783,004	120,859	15 9		
	Middle	14	861	1,069	2,600	8 3 6	1,241	8,060	10 4 11					
	Primary	1,044	94,798	1,817	13,876	2,885	64,680	82,510	2 6 1					
	Special	26	607	83,798	.....	130	4,631	17,441	80 7 6					
	Total	1,090	98,963	47,502	16,436	4,815	1,18,105	82,481	2 18 0 9					
Total for 1891-92		1,477	86,392	33,173	13,810	3,780	86,586	31,019	1 00 3 47	4 12 6	.....	.....	29 3	
Gaya	High	4	1,154	Rs. 3,367	.....	.....	10,416	5,480	16 11 2	2,138,331	156,761	15 9		
	Middle	15	831	837	3,049	318	2,385	2,387	9 13 7					
	Primary	934	20,340	1,391	5,691	1,402	31,061	18,178	2 13 10					
	Special	3	60	.....	84	9	34	120	3 0 3					
	Total	955	22,397	4,905	8,864	1,729	44,246	26,074	60,008				3 13 5	
Total for 1891-92		1,018	21,936	5,805	13,97	1,616	53,901	31,056	95,205	3 15 7	.....	.....	15 4	
Shahabad	High	6	1,595	1,034	.....	770	24,040	3,770	18 9 1	2,063,337	148,019	11 2		
	Middle	20	607	310	2,183	170	1,872	3,453	10 2 8					
	Primary	408	10,627	2,783	3,880	1,530	13,252	4,650	2 7 7					
	Special	5	427	13	42	.....	4,269	7,381	28 7 7					
	Total	439	13,416	4,115	6,505	2,470	43,438	25,104	76,080				5 21 4	
Total for 1891-92		461	14,623	5,298	8,271	2,380	41,871	23,440	70,380	4 18 0	.....	.....	12 2	
Muzaffarpur	High	5	1,965	3,329	.....	50	14,683	2,598	16 5 2	2,731,442	195,806	11 7		
	Middle	13	840	733	1,917	519	1,333	5,776	12 10 8					
	Primary	704	15,853	49	7,667	795	20,101	5,248	30,760				2 8 1	
	Special	2	80	.....	.....	.....	.....	1,700	21 4 0					
	Total	814	18,045	4,111	0,484	1,384	42,027	15,263	72,848				4 0 7	
Total for 1891-92		816	17,580	2,080	9,581	1,403	40,726	17,308	81,828	4 10 5	.....	.....	10 9	
Darbhanga	High	5	808	876	.....	7,163	8,168	16,297	16 3 9	2,801,955	205,647	11 8		
	Middle	12	603	680	1,293	236	1,116	4,770	8,035					
	Primary	716	18,300	444	10,586	418	14,618	10,379	36,025					
	Special	1	54	223	.....	37	.....	1,288	1,348					
	Total	734	20,015	2,163	11,879	691	28,007	21,586	62,416				3 1 10	
Total for 1891-92		697	10,836	2,785	11,805	830	17,787	26,307	51,684	3 3 11	.....	.....	10 3	
Saran	High	4	1,171	.....	.....	19,218	7,675	26,493	22 15 5	2,674,477	170,088	13 3		
	Middle	17	1,091	270	3,648	1,240	3,130	2,439	10,956					
	Primary	724	18,447	1,087	7,381	759	18,480	3,641	35,011					
	Special	2	66	.....	.....	288	.....	240	8 2 5					
	Total	747	20,775	1,357	11,029	2,396	41,203	14,488	70,308				3 6 2	
Total for 1891-92		1,306	33,621	1,740	12,711	2,319	41,292	21,178	70,240	2 5 0	.....	.....	22 2	
Chhaparan	High	1	237	1,218	.....	3,560	531	5,279	23 4 1	1,889,405	140,429	15 3		
	Middle	12	710	206	1,825	211	1,787	3,063	7,712					
	Primary	725	16,613	144	9,215	344	16,903	11,840	38,448					
	Special	3	73	731	480	120	.....	1,332	2,603					
	Total	740	17,683	2,589	11,520	675	21,012	17,696	54,162				3 0 11	
Total for 1891-92		716	16,733	6,085	17,302	1,011	22,087	17,214	64,569	3 14 5	.....	.....	14 3	
Total of division	High	37	9,025	20,542	.....	1,080	1,24,538	41,578	1,58,618	20 14 4	15,811,014	1,147,180	16 2	
	Middle	108	5,904	3,521	16,315	3,363	15,070	24,470	63,361	10 11 8				
	Primary	5,845	134,808	7,656	55,106	7,642	1,86,347	54,344	3,14,671	2 5 3				
	Special	40	1,466	31,770	606	574	8,934	30,162	75,560	51 3 1				
	GRAND TOTAL	6,025	151,293	66,402	73,717	13,359	3,34,788	1,50,550	6,41,106	4 3 9				.....	.....	15 9
Total for 1891-92		6,389	158,431	60,055	87,007	14,398	3,12,361	1,54,622	6,27,062	3 15 5	.....	.....	15 9	

NOTE.—Percentages in column 14 include boys in private institutions.

The total number of public schools in the Division fell from 6,389 to 6,025 and of pupils from 158,431 to 151,293. The decrease was principally in the lower primary schools in Gaya, Shahabad, and Saran, and is attributed to the agricultural distress, the withdrawal of fixed stipends from several schools under the system of payment by results, and to the subordinate inspecting staff having rigidly enforced the new rules regarding the grant of rewards.

The percentage of boys at schools, public and private, to the total number of a school-going age, in the Division as a whole, is 15·2, while in Muzaffarpur, Darbhanga, and Shahabad not one boy in every nine is at school who ought to be there. Primary education is miserably backward in these districts, and does not appear to be making any substantial progress.

The cost of education per head ranged from Rs. 27-0-7 in Patna to Rs. 16-3-9 in Darbhanga in high schools, from Rs. 12-10-8 to Rs. 9-13-7 in middle schools, and in primary schools from Rs. 2-13-10 to Rs. 1-11-9. In primary schools, the average cost per pupil for the whole Division was Rs. 2-5-3, or nearly double as much as the average cost (Re. 1-6) in the Chittagong Division.

Comparing the totals for the entire Division with those for Chittagong, it appears that in the whole of the Patna Division, with a population nearly four times as large as that of Chittagong, the number of boys at school was actually smaller in the former than in the latter Division, while the expenditure from Provincial Revenues, District Boards and Municipal Funds, and the receipts from fees, were nearly double as much again as in the Chittagong Division. The remarkable disparity in the relative numbers of pupils and the cost of educating them in these two Divisions is a matter that should engage the attention of the Educational authorities. No effort should be spared to push on education in Bihar, both of the secondary and primary kind. The Officiating Lieutenant-Governor has noticed with great regret how few natives of Bihar are holding judicial or executive appointments of dignity or emolument in their own Province. The number he believes is actually less now than it was some years ago. This is not as it should be, and if the backwardness of the Province in this respect is due to educational disadvantages, an effort should be made to redress the grievance.

#### Dispensaries.

23. The following statement gives the statistics of dispensaries:—

DISTRICT.	Number of dispensaries.	ONE FROM—		DAILY AVERAGE PATIENTS—			Ratio per cent. of out-door patients to total population.		
		Government.	District Board.	Municipality.	Subscriptions.	Total.		In-patients.	Out-patients.
	2	3	4	5	6	7	8	9	10
Patna	11	Rs. 335	Rs. 3,785	Rs. 17,883	Rs. 1,319	Rs. 23,105	2,867	71,700	4'0
Gaya	7	611	5,677	6,582	7,356	20,306	1,671	34,047	1'1
Shahabad	8	2,101	1,900	7,183	8,555	16,739	1,194	67,431	3'3
Muzaffarpur	4	78	1,700	4,680	4,347	10,715	1,049	45,359	1'6
Darbhanga	6	118	691	4,080	12,549	18,327	1,072	86,938	3'1
Saran	10	310	5,394	7,892	9,041	23,127	952	122,660	4'9
Champaran	4	1,259	800	4,479	3,080	9,618	1,041	56,216	3'0
Total	50	4,712	20,505	53,583	43,127	1,21,927	9,836	484,251	21'0

Though the Division is most backward in the matter of education, it takes a high place in respect of dispensaries and medical aid. Great zamindars, such as the Maharajas of Darbhanga and Hutwa, and the Maharani of Bettiah, keep up dispensaries at their own expense, and District Boards and Municipalities are also very liberal in supporting such institutions. The total number of patients treated was 494,087, or more than three times the number of pupils at school; the total expenditure being Rs. 1,21,939, equal to nearly four times the expenditure on dispensaries in the Chittagong Division.

The Lady Dufferin Female Hospital at Darbhanga was efficiently managed, and the Dufferin Hospital at Bettiah was opened by the Lieutenant-Governor shortly after the much lamented death of the late Maharaja of Bettiah, who also made grants for four dispensaries in the interior of his estates. Dr. Miss Grace Mackinnon and her assistant, Miss Gregory, have established a private charitable dispensary in the heart of the city of Patna, and are building a hospital. The Officiating Lieutenant-Governor is informed that Raja Rameswar Singh has also taken steps to establish a women's hospital in his estate in the north of the Darbhanga district.

24. The Gaya, Muzaffarpur, Champaran and Saran Municipalities are reported to have worked satisfactorily. A scheme for the supply of filtered water to the Arrah Municipality at an estimated cost of Rs. 4,17,786 was sanctioned by Government during the year. The general working of the Darbhanga Municipality has for some time been anything but satisfactory. The Magistrate writes: "None of the Commissioners take any

Local Self-Government Institutions—

Municipalities, District Boards, Honorary Magistrates' Benches.



interest in its affairs. The work of revision of assessment was done in a perfunctory manner. The taxes have not been collected. The establishment is too large and does nothing, and it is impossible to imagine the chaos into which things have drifted. The matter has been taken up by Mr. Williams, the present Magistrate, and the Officiating Lieutenant-Governor hopes that he will insist on these abuses being remedied without delay.

Sir Antony MacDonnell is glad to observe that District Boards have on the whole worked satisfactorily and smoothly, and that the Commissioner is in a position to report that many of the members who sit in the various Committees are assiduous in the discharge of their duties, and transact public business conscientiously and well.

The Commissioner gave much attention during his tours to the work of most of the Benches in the Division, but on the whole was not favourably impressed with them. The chief fault he found was irregularity of attendance, resulting in frequent remands, causing much harassment to litigants. He recommends that appointments to the rank of Honorary Magistrates should, following the rule of other Local Self-Government institutions, be made for a term of years, and that the continuance of the honour should depend on the honest fulfilment of the duties of the office. The matter will be considered separately.

25. In connection with the state of public feeling, the Commissioner writes that the relations between indigo plantors and raiyats have been satisfactory; and from his previous knowledge of Bihar, Sir Antony MacDonnell attributes this improved condition of things to the influence of the Indigo Planters' Association, which has been used as much in the interests of the Government as of the industry itself.

On the general condition of public feeling in the Division, Mr. Forbes writes as follows:—

"I remarked in last year's report that the Gorakshini Sabha is in theory a humane and harmless institution, having for its object the protection of the lives of cattle. At Gaya, Shahabad, Muzaffarpur, Patna, Darbhanga, and possibly other places,—though the reports are silent on this point,—pinjrapoles have been established, in which a considerable number of neglected and starving cattle are housed and cared for. If the operations of the Society ended here, it would be entitled to our full sympathy and support. But unfortunately that is not the case. There is a tendency in some places among its promoters to promulgate its doctrines in an ostentatious and aggressive manner, with the result of exciting much ill-feeling between the Muhammadan and Hindu communities. Action of this kind is most unwise, in the interest of the society itself, and also seriously endangers the public peace. If the object of the propagandists solely be to put a stop to cow-slaughter and in no way to foster religious animosity, they have singularly failed in their intention. As might have been expected, the result, wherever feeling has run high, has been to incite the Muhammadan community to retaliate by sacrificing, at the Bakrid festival, more cows than ever. If the members of the Sabha are wise, they will in future be careful to confine their attention to purely practical measures, such as the establishment and support of pinjrapoles, and they will firmly discountenance any attempt at propagandism. It is useless to disseminate doctrines among the Hindus which they already religiously hold, and the only possible result of any agitation of the kind referred to will be to excite ill-feeling on the part of their Muhammadan fellow-countrymen.

"Unfortunately the above advice has not, until quite lately, been attended to. On the contrary, the promoters of the Sabha, especially in the Gaya and Patna districts, throughout the year under review, permitted the agitation to continue unchecked. The result has been a series of riots, chiefly in Gaya, on the estates of certain landlords, whose names need not be mentioned here. The first of these riots occurred on the 16th April of the present year close to thana Masourhi in the Patna district, where a convoy of nearly 300 cattle in charge of an agent of the Commissariat Department, Dinapur, and several butchers, escorted by three constables from the Gaya reserve, were attacked on their way to the cantonment by a large and excited mob of Hindus, as they were about to cross the Poon Poon river. They managed to escape with the drove back to the thana, with the loss of one head of cattle only, which the rioters carried off, and which has not been heard of since. The District Magistrate was informed by telegram of the occurrence, and immediately despatched a Sub-Inspector of Police to enquire into the case. The Sub-Inspector, accompanied by a head-constable and a force of constables, accordingly proceeded to the spot, and made 18 arrests on the identification of the Commissariat Agent and his companions; but as he was returning with the prisoners to the Masourhi thana, the whole of the villages which had joined in the previous day's riot again turned out, and two large mobs armed with lathis, each several hundred strong, came down from different directions upon the convoy, with shouts of "Gow gohar!" severely assaulted the Sub-Inspector and one of his constables, and forcibly rescued all the 18



prisoners. It being evident that strong measures were necessary, the District Magistrate on the following day despatched the District Superintendent of Police with a body of armed police, accompanied by Mr. Assistant Magistrate Carey, with instructions to hold a judicial enquiry on the spot. On their arrival the whole of the guilty villages were found deserted, the inhabitants having absconded, taking their women, children, cattle with them. All the zamindari amala, who had been present on the preceding day, had disappeared. On a house-to-house search, however, being made, some 20 men in all were found in various hiding-places, of whom 10 were satisfactorily identified as having taken part in the second attack. These 10 were eventually convicted and sentenced to one year's rigorous imprisonment each, which was upheld in appeal. Of the original prisoners none have yet been re-arrested.

"I have given a full narrative of this case, as it shows the turn which the agitation had taken, and the lengths to which, if unchecked, it would eventually have gone. There can be no doubt but that the ignorant Hindu masses, in endeavouring to prevent kine-slaughter, are swayed by a strong religious feeling. But there can equally be no doubt that they would, as in other matters, have had the sense to understand that they are not responsible for sins committed by others, and would under this consideration have accepted the position quietly, as they have hitherto done, had not the propagandist preachers and their supporters persistently fanned the flame, until the movement had assumed the form not merely of a threatened widespread rising of one class of Her Majesty's subjects against another, but also of open revolt against the constituted authorities.

"Following upon the outbreak at Masourhi, similar riots occurred in quick succession in several places in the Gaya district. In each case a full report of the facts were submitted to Government, with the result that bodies of additional police have been immediately quartered under section 15, Act V of 1861, for one year at the expense of the inhabitants, at Masourhi, in two places in the Gaya Sadar subdivision, in three places in the Aurangabad sub-division, and in one place in the Jahanabad subdivision.

"It is to be observed that all these outbreaks bore the same characteristics. Large crowds of Hindus, in a dangerously excited state, suddenly rising against their Muhammadan fellow-subjects in order to forcibly prevent their sacrificing or slaughtering kine for food. In none of the cases referred to were there any signs of an attempt to wound Hindu religious feeling. On the contrary, care was invariably taken that all sacrifices should be performed out of public sight, in strict privacy, this being a matter that has always been strictly insisted on by the authorities.

"All the occurrences referred to above took place shortly before the late Bakrid, the last Government notification under the Police Act, section 15, being dated the 13th June 1893, barely a fortnight before the date for the festival. Fortunately the firm action taken by Government, followed up by the warnings of the local authorities, had the effect of opening the eyes of the responsible parties to the danger of the course they were pursuing. A notorious agitator, Gopalanand Swami, who had come secretly to Gaya a few days before (on the 4th June), after being released from a 2½ years' sentence for heading an anti kine-killing riot in Shahabad, was denounced and ordered off. The President and the Vice-President of the Gaya Gorakshini Sabha resigned office. The Sabha published a circular disclaiming propagandist principles. Finally, the Magistrate of Gaya, who throughout acted with much tact and firmness, was able to obtain the unanimous support, in the interests of order, of the leaders of both sides, Hindu and Muhammadan, and the Bakrid festival passed off without any disturbance throughout the Gaya district. It is only to be hoped that the supporters of the Sabha will continue in their present mind, and beware in future of permitting any further agitation—an agitation which, to say the least, is certainly calculated to do the cause of the Society an immense deal of harm."

The agitation connected with kine-killing has, since the date of the Commissioner's report, led to further rioting and outrage of a serious nature. The efforts of the Government have been directed towards the preservation of the peace, the punishment of offenders, the collection of accurate information in regard to the agitation, its causes, objects, methods, promoters and fomenters, and, where possible, towards the mitigation of acerbities between Hindus and Muhammadans. But Sir Antony MacDonnell has been concerned to find that a spirit has manifested itself in certain portions of Bihar, which seeks to suppress the slaughter of kine for food or sacrificial purposes altogether, and to effect this suppression by coercive measures, temporal and spiritual, of much severity. In other words there are symptoms in certain tracts of the establishment of a system of terrorism. Among the Muhammadans in these tracts, there are indications of the formation of societies for defence or attack.

Reverence for the cow, it is well known, is a deeply-rooted and immemorial sentiment with all orthodox Hindus; but the acute phase of this sentiment which now presents itself, and the intolerance of non-Hindu customs which attends it have not arisen spontaneously among the people of Bihar, who are by nature docile and industrious. They have been excited by men from without, who by a species of propagandism (which, so far as His Honour knows, is, in

such circumstances, foreign to Hindu polity) appeal to the religious fervour of the masses, while creating an organization for propagating their objects, and collecting funds which are not all expended on the maintenance of kine asylums. There is reason to believe that the exhortations of these propagandists have occasionally merged into incitements to misconduct. And it is not by Hindus alone that inflammatory appeals have been made and funds collected: in certain localities Muhammadans have also been blameworthy in this respect, and have irritated Hindus into reprisals. Thus a spirit of mutual provocation and embitterment has been excited which has had the worst effect. This agitation, if begun by strangers, has been fomented and encouraged by local residents of standing and education, some of whose names are known to the authorities, and from whom far different conduct was to be expected. The Hindus of Bihar have Sir Antony MacDonnell's sympathy in their endeavours to secure kind treatment for kine, and they may be assured of the support of Government in all legitimate efforts to restrict within the customary limits the slaughter of kine by non-Hindus, if these limits have been transgressed, and to assure that kine-slaughter shall not be effected, no matter what past practice may have been, in a way to outrage Hindu feeling. Already some progress has been made in this direction, with the cordial assistance of the leaders of the Muhammadan community. But nothing except evil can come from an attempt to coerce non-Hindus into submission to ultra-Hindu views in this matter, or from methods of agitation which are incompatible with the maintenance of law and order in the localities concerned.

The participators in riots can be punished by the Criminal Courts. The fomenters of disturbance and their dupes can be held to security for their good behaviour, though the law in this respect is somewhat defective. The public tranquillity in a tract which is in a disturbed and dangerous state may be preserved by quartering additional police in it, and the Officiating Lieutenant-Governor has been compelled to adopt this latter course in regard to the tract of country about Koath in the Shahabad district, in which, although several rioters on both sides were convicted and punished, the state of feeling is still so disturbed and dangerous that a fresh outbreak may at any moment occur. But His Honour is conscious of the imperfections of this procedure, which, as the law now stands, does not sufficiently discriminate between the innocent and the guilty so far as the apportionment of costs goes. In most of the great zamindaris which are controlled by proprietors of high position, loyalty and intelligence, the authorities experience small difficulty in connexion with this agitation. These zamindars throw their influence into the scale in favour of law and order, and justify the relaxation of those onerous police duties which were imposed on the proprietors of land by immemorial custom and the decennial settlement, but of which they were partially exonerated by the earlier Regulations. Some large proprietors, however, have not deserved so well, while outside the great zamindaris the subdivision of landed property in Bihar has gone very far. Proprietary rights have fallen largely into the hands of persons who, though grown rich under British rule, seem to have forgotten the duties which attached to the proprietary status under the customary law of the land. It is in these estates and in the towns that agitation is most prevalent and threatens to be least manageable. The question of local responsibility in towns must be separately considered: here His Honour will say that without the active co-operation of the smaller landlords, who form the bulk of the proprietary body in Bihar, it is difficult for the authorities to check the growth of disturbing influences; and as the law at present stands, this co-operation cannot in all cases be enforced.

There is another aspect of the question which deserves consideration. The Cow-Protection movement in some degree bases its claims upon economic grounds. It lays stress partly upon the diminution and deterioration which are alleged to be taking place in the agricultural cattle of India, as a result of the encroachment of cultivation upon the old village pastures, and partly, it is stated—though this allegation seems to be unfounded—of the heavy duty levied on salt. This seems to point to improvements in the breed, pasturage, and treatment of cattle, as promising some relief from the evils complained of, and opening up a prospect of some mitigation of the agitation. This of course must be a work of time, and it would be premature for the Government to attempt to forecast at

the present moment the precise measures which may be found necessary. Dr. Voelcker's Report on Indian Agriculture, which deals with the subject at length, is still under the consideration of the Government of India, and no final decision has been arrived at regarding the action to be taken upon it. Nevertheless the Officiating Lieutenant-Governor hopes that some form of Government action will be devised with the object of promoting the welfare of cattle in India, and if the Cow Protection societies would associate themselves with the Government in an endeavour to secure throughout the province the better treatment of cattle, the joint effort might be productive not only of material good to the country, but might lead to some means of allaying the embittered conflicts which now embroil the two main sections of the population in certain portions of Bihar.

27. Apart from the excitement connected with the kine-killing agitation, the principal subjects discussed by the educated classes were the abolition of the jury system, the election of members to the Provincial Legislative Council, and the Cadastral Survey. On the latter subject the Collector of Muzaffarpur has the following remarks, in which the Commissioner of the Division generally agrees:—

“Although the measure is yet unpopular, especially with the zamindars, the advantages of a record of rights are now better appreciated by all classes. The spirit of opposition and consequent agitation, which existed before the introduction of the measure, has disappeared, and, as far as I have been able to ascertain, the action of the Government is now regarded as beneficial to all parties interested in the land, as likely to place the present unsettled relation of landlord and tenant on a better footing

“the comparatively low condition of the raiyats and the peasantry in these parts is due largely to the want of an accurate record of each tenure and each raiyat's holding within an estate, and of the status of every one who has rights in the land and of the rent paid by each raiyat to the tenure-holder. That the object of the Government is simply to supply this want is now understood by the tenants and landlords alike.”

The Survey and Record of Rights in Bihar has occupied much of the Officiating Lieutenant-Governor's time and attention, and he has now, with the consent of the Government of India, published a full expression of his views on the whole subject, both in its past and future aspects.

28. The conduct of zamindars on the whole is reported to have been satisfactory, except in certain localities where their action in connection with the spread of the agitation on kine-killing was not such as to merit commendation.

Only the briefest mention is made of the relations between indigo planters and the raiyats, which are said to continue to be peaceable. An aggravated case of assault by some villagers on a European planter occurred in Champaran, but this is stated to have been the outcome of a personal grudge, and to have had nothing to do with indigo.

The district of Champaran suffered a great loss during the year in the death of the Maharaja Sir Herandra Kishor Singh Bahadur, of Bettiah. “He was,” as Mr. Forbes remarks, “a kind and considerate master; as a landlord he was universally loved and respected by his tenantry.” In this eulogium Sir Antony MacDonnell entirely concurs; for personal and public reasons he deeply regrets the Maharaja's early death.

29. The Officiating Lieutenant-Governor thanks the Commissioner for his full report. The successful administration of the Patna Division is always an onerous and anxious task, to be entrusted only to one of the most energetic, able, and prudent officers of this Government, and Sir Antony MacDonnell congratulates Mr. Forbes on the way in which he has acquitted himself of the task during the year under review.

30. The remarks made on the character of the officers will be communicated to the Appointment Department. Among District Officers, Messrs. Bourdillon, Blyth, Hare, and Macpherson, among Sub-divisional Officers and Joint-Magistrates, Messrs. LeMesurier, Levinge, Cumming and Oldham, and among Deputy Magistrates and Collectors, Babu Saroda Prosad Chatterjea, Babu Jagdam Sahoy, and Maulvi Syed Majibur Rahman deserve special commendation.

By order of the Lieutenant-Governor of Bengal,

M. FINUCANE,

*Offg. Secretary to the Govt. of Bengal.*

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 28th October, 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL.</b>			
BURDWAN DIVN.	1 Burdwan Oct. 28, '93	0.04	Weather—seasonable. <i>Aman</i> rice doing well. Prices of common rice :—
	Kalna ...	0.95	Srs. 10 to 13
	Katwa ...	0.11	9 to 13
	Raniganj ...	0.02	12½ } per rupee.
			12½ }
	2 Bankura „ 28, '93	Nil	Weather—seasonable. Fine weather has facilitated cultivation for <i>rabi</i> sowings. Prospects of <i>aman</i> very favourable; outturn expected to be 16-annas. Water and fodder sufficient. Common rice selling at 15½ seers per rupee at Sadar and 12½ seers at Vishnupur.
	Vishnupur ...	0.41	
	3 Birbhum „ 28, '93	Nil	Weather—fair and getting cold at night. Early paddy ripe for harvesting. Winter rice continues good, but prospects of sugarcane not favourably reported. Common rice sells from 10 to 15 seers per rupee.
	Rampur Hát ...	0.99	
	4 Midnapore „ 28, '93	0.09	Weather—fine. Cold weather setting in. Prospects of standing crops continue good and hopeful. No cattle-disease. Fodder and water sufficient. Prices of common rice :—
			Srs. 12
			12½ } per rupee.
			11
			11 to 12 }
	5 Hooghly „ 28, '93	0.07	Weather—seasonable: hot during day, cool at night. Harvesting of <i>aus</i> completed except in Jahanabad subdivision. <i>Aman</i> paddy doing well. Prices of common rice :—
	Serampore ...	0.65	Srs. 10
	Jahanabad ...	1.00	10 to 11 } per rupee.
			11 to 12½ }
	6 Howrah „ 28, '93	Nil	Weather—seasonable. <i>Aman</i> paddy doing well. <i>Aus</i> harvest nearly finished. Price of common rice 10 seers per rupee Fodder and water sufficient.
	Ulularia ...	0.28	
PRESIDENCY DIVN.	7 24-Parganas „ 28, '93	0.05	Weather—seasonable. Ploughing for <i>rabi</i> crops going on. Prospects of crops fair everywhere except in the Bankipur thana. Rice sells at—
			Srs. c. 9 to 10½
			9 13½ } per rupee.
			11 0
			11 0 }
	8 Nadia „ 28, '93	0.56	Weather—fair and slightly cooler. Prospects of winter rice very good in Ranaghat, fair in Sadar and Meherpur, and poor in Kushtia. <i>Rabi</i> seed is being sown. Fodder and water plentiful.
	Kushtia ...	0.62	
	Meherpur ...	Nil	
	Chuadanga ...	0.07	
	Ranaghat ...	0.35	
	9 Khutna „ 28, '93	0.15	Weather—fine and cool. Prospects of <i>aman</i> good. Fodder sufficient.
	Bagerhat ...	1.58	
	Satkhira ...	Nil	
	10 Jessore „ 28, '93	0.27	Weather—seasonable. <i>Aman</i> crop doing well. Lands being prepared and sown with winter crops. No cattle-disease reported. Rivers have risen a little again. Fodder and water sufficient. Prices steady.
	Jhenida ...	0.28	
	Magura ...	Nil	
	Bangaon ...	0.05	
	11 Murshidabad „ 28, '93	Nil	Weather—seasonable. Lands are being prepared for <i>rabi</i> crops and sowings commenced. Mulberry and <i>aman</i> paddy doing well. Fodder and water sufficient. Common rice sells at 12 seers per rupee.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL—conold.</b>			
CHITTAGONG DIVN.	12 Chittagong Oct. 28, '93	4.08	Weather—alternately cloudy and hot. A storm passed on the 22nd instant. Paddy crops damaged to some extent. Lands being prepared for <i>rahi</i> crops. Prices have somewhat risen. Condition of cattle generally good. Fodder sufficient.
	13 Noakhali „ 28, '93	6.86	Weather—cyclonic on 21st and 22nd and fine since. A cyclone of considerable intensity passed over the district on 22nd instant. In the littoral tracts of the mainland crops have suffered much from inundation. In Hatiya and Sundeeb the damage is not so serious as might have been expected. In Feni, Lakhimpur, Beganganj, Raipore, and Ramganj the damage has been slight. Extent of the damage in annas cannot, however, be ascertained now. Loss of cattle in chura has been rather serious. Fodder and water available. Price of rice at Noakhali 8 seers 4 chitaks and at Feni 9 seers per rupee.
	14 Tippera „ 28, '93	3.00	Weather—seasonable. There was a storm on Sunday (22nd), which did some damage to paddy and houses. Harvesting of jute going on. Prospect of <i>aman</i> good. Damage by insect reported from Kotwali and Nasirnagar thanas. Price of rice stationary.
	15 Chittagong Hill Tracts. „ 27, '93	3.08	Weather—rainy and cloudy throughout the week. Gathering of late <i>jum</i> paddy continues. Plough-paddy progressing. Lands are being ploughed for mustard. No cattle-disease reported. Common rice being sold at 9 seers per rupee.
DACCA DIVN.	16 Dacca „ 28, '93	0.55	Weather—seasonable. Harvesting of paddy commenced. Prospects of <i>aman</i> favourable. Mustard, <i>mug</i> and <i>katai</i> being sown. Common rice selling from 7 to 11 seers per rupee. Fodder available. No cattle-disease.
	17 Faridpur „ 28, '93	0.05	Weather—fine; warm during day, cool at night. Early <i>aman</i> harvest and sowing of pulse on high lands continue. Rice sells from 10 to 12 seers per rupee.
	Madaripur ...	1.06	
	18 Hckergrunge „ 28, '93	3.28	Weather—seasonable, except on the 22nd and 23rd. A severe cyclone in Bhola and Doulatkhan on the 22nd. Prospect of standing crops fair. Early <i>aman</i> has been damaged in the Bhola and Patuakhali subdivisions by the cyclone. Common rice selling from 7 to 10 seers per rupee. Fodder and water sufficient.
RAJSHAH DIVN.	19 Mymensingh „ 28, '93	0.28	Weather—seasonable. Prospects of standing crops good. Common rice selling at 9 to 10 seers per rupee. Condition of cattle good. Supply of fodder sufficient except at Kishorganj.
	20 Dinajpur „ 28, '93	Nil	Weather—cool in the morning but hot during midday. Prospects of standing crops continue good all over the district. Ploughing for <i>rahi</i> going on rapidly. Price of rice both at Sadar and Thakurgaon stationary. Condition of cattle good. Supply of fodder and drinking water ample.
	Thakurgaon ...	0.83	
	21 Rajshahi „ 28, '93	Nil	Weather—seasonable; getting cold in the mornings. Crops on all high lands good, in some places very good. In low lands there has been considerable damage; but on the whole, condition of all crops generally good. No cattle-disease. Water and fodder-supply ample. Rice selling from 9 to 11 seers per rupee.
	Nator ...	0.78	
	Naugaon ...	1.80	
	22 Rangpur „ 28, '93	Nil	Weather—seasonable with northerly breeze. Lands are under preparation for tobacco, mustard, and other cold-weather crops. Sugarcane doing well. Prospects of <i>aman</i> favourable. Price of rice unchanged.
	Nilphamari ...	1.82	
RAJSHAH DIVN.	Gaibanda ...	2.47	
	Kurigaon ...	0.41	
	23 Bogra „ 28, '93	1.85	Weather—fine with occasional showers. Prospects of <i>aman</i> excellent. Land is being cultivated for winter crops. Common rice sells at 11½ seers per rupee. Fodder and water sufficient.
	Sherpur ...	2.60	
	24 Pabna „ 28, '93	Nil	Weather—getting cool and fine. Prospects of <i>aman</i> continue good. Heavy rain during the week in the Sirajganj subdivision damaged <i>kalai</i> , <i>khesari</i> , and affected the sowing of mustard and hemp. Rice selling at 9½ seers per rupee at Sadar and Rs. 4 to Rs. 4-8 per maund at Sirajganj. Fodder and water-supply sufficient.
	25 Darjeeling „ 28, '93	Nil	Weather—seasonable; bright and cool. In the hills:— <i>Bara murua</i> being harvested in some places. <i>Aghani dhan</i> , <i>kalai</i> , <i>phaphur</i> , <i>torae</i> , and potatoes progressing favourably. In the Terai:— <i>Haimanti dhan</i> in ear. <i>Til</i> and <i>kalai</i> being sown. Prospects good. Prices of coarse rice:—
	Siliguri ...	3.89	
RAJSHAH DIVN.			Srs.
			Hills ... 9 } Terai ... 11 } per rupee.
26 Jalpaiguri „ 28, '93		Nil	Weather—seasonable. Prospects of standing crop ( <i>haimanti</i> rice) good. Price of common rice 11½ seers per rupee on an average. Fodder and water sufficient. No cattle-disease reported.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR.</b>			
BRAGALPUR DIV.	27 Monghyr Bogusarai Jumui	Oct. 28, '93 Nil Nil 0.26	Weather—fair. Hot in day and cool in night. Prospects of winter rice very promising. <i>Rabi</i> sowings going on. <i>Kurthi</i> , indigo, and sugarcane doing well. Cattle-disease towards Nawadih, Sekundra, Saidpore, Donowdi, Fatehpur, and Hardy. Fodder and water sufficient. Prices of common rice:— Srs. Sadar ... .. 11 to 15 Bogusarai ... .. 12½ Jumui ... .. 13 } per rupee.
	28 Bhagalpur Banka Madhipura	.. 28 '93 Nil 0.95 1.40	Clear skies and cool weather. Prospects of winter rice excellent. <i>Rabi</i> is being sown. Cattle-disease prevalent. Price of common rice 15 seers 2 chitaks per rupee.
	29 Purnea Kishanganj Araria	.. 29, '93 Nil 1.52 1.20	Cold weather is approaching gradually. Prospects of <i>aghani</i> good generally. Cultivation of <i>rabi</i> progressing favourably. Fodder and water sufficient. No cattle-disease. Price of rice stationary.
	30 Malda	.. 28, '93 Nil	Weather—days bright and warm, nights cool. Prospects of winter rice continue favourable everywhere. <i>Kalai</i> thriving and <i>rabi</i> crops being sown. Ordinary rice sells at 18 to 16 seers per rupee. Fodder and water ample.
	31 Sonthal Parganas Droghur Goida Jamtara Pakur Rajmahal	.. 28, '93 0.02 0.48 0.35 1.04 Nil Nil	Weather—cloudy. Hot in the day and cool at night. All standing crops doing well. Land being prepared for winter crops. <i>Rabi</i> seeds being sown. Fodder and water plentiful.
	32 Patna Barh Bihar Dinapore	.. 28, '93 Nil Nil Nil 0.12	Weather—clear and cool. Prospects of rice excellent, and of <i>rabi</i> at present equally good. Prices of common rice:— Srs. Sadar ... .. 17 Barh ... .. 12 Bihar ... .. 17 Dinapore ... .. 16½ } per rupee.
	33 Gaya Nawada Jahanabad Aurangabad	.. 28, '93 Nil Nil 0.08 0.02	Weather—clear but cloudy at times; cool at night. Condition of rice crop very good. <i>Rabi</i> sowings going on everywhere. Prices unaltered. Supply of fodder and water ample.
	34 Shahabad Buxar Sasaram	.. 28, '93 Nil 0.03 Nil	Weather—seasonable. Prospect of winter rice good. <i>Rabi</i> being sown.
	35 Darbhanga Madhubani Samastipur	.. 28, '93 Nil 0.99 0.32	Weather—fair with west wind. Rivers were in flood this week and some damage is reported to have been done to crops in the south-east of the district. Elsewhere prospects of rice crop continue favourable. <i>Rabi</i> sowings going on where possible, but land in parts too moist. Fodder for cattle sufficient. Prices remain unchanged.
	36 Muzaffarpur Hujipur Sitamarhi	.. 28, '93 Nil 0.08 1.75	Weather—fair. Heavy floods again, specially in the Sitamarhi subdivision and in the Sadar and Katrahi thannas. <i>Rabi</i> sowings will be seriously delayed. Rice promises well. No cattle-disease. Fodder sufficient.
<b>PATNA DIVISION.</b>			

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR—consolid.</b>			
PATNA DIVISION—consolid.	37 Saran Siwan Gopalganj	Oct. 28, '93 ... ... Nil Nil 4.33	Weather—seasonable. State and prospects of crops very good. Fodder and water plentiful. Prices of common rice:—  Srs. c. Chapra ... .. 15 12 } Siwan ... .. 15 8 } per rupee. Gopalganj ... .. 16 14 }
	38 Champaran	.. 28, '93 Nil	Weather—fine but still rather warm in the day. <i>Rabi</i> sowing retarded by the recent rain. Prospects of <i>aghani</i> good. Prices stationary. Fodder and water sufficient.
<b>ORISSA.</b>			
ORISSA DIVN.	39 Cuttack	.. 28, '93 Nil	Weather—fair and seasonable. <i>Laghu sarad</i> attaining maturity. <i>Guru sarad</i> growing. <i>Biali</i> being threshed. Average selling price of common rice unchanged.
	40 Puri	.. 26, '93 0.02	Weather—seasonable. <i>Sarad</i> thriving well. <i>Laghu</i> in ear. Miscellaneous crops doing well. General prospects good. Prices of common rice:— Srs. c. Srs. c. Sadar ... .. 12 8 to 15 12 per rupee.
	41 Balasore	.. 28, '93 Nil	Weather—seasonable. Prospects generally good. Prices of coarse rice:— Srs. Balasore ... .. 16 to 18 } Bhadrak ... .. 18 to 20 } per rupee.
<b>CHOTA NAGPUR.</b>			
<i>South-West Frontier Agency.</i>			
CHOTA NAGPUR DIVN.	42 Hazaribagh Giridi	Oct. 28, '93 ... 1.22 Nil	Weather—seasonable. All crops doing well and 16-muns outturn expected. Sowings of <i>rabi</i> crops still in progress. Paddy is being harvested in places. Fodder and water sufficient. Prices stationary.
	43 Lohardaga	.. 28, '93 Nil	Weather—seasonable. Harvesting of upland winter rice commenced. Common rice sells from 14 to 16 seers per rupee. Fodder and water plentiful.
	44 Palamau	.. 27, '93 Nil	Weather—fine and getting colder daily. The rain has cleared away, and a bumper crop of paddy seems now assured. <i>Rabi</i> sowings are going on vigorously. Prospects of all crops excellent. Cattle-disease reported from some parts. Rice selling from 13 to 24 seers per rupee. Fodder and water-supply ample.
	45 Singhbhum	.. 28, '93 Nil	Clouds come up daily, but no rain. Nights getting quite cold. Crops continue to do well, and prospects of a good harvest are bright indeed. A few cases of cattle-disease reported from Bahragora.
	46 Manbhum Gobindpur	.. 28, '93 ... Nil Nil	Weather—cool and bright. Prospects of standing crops favourable. Rice selling from 9 to 13 seers per rupee. Fodder and water sufficient.

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 31st October, 1893.M. FINUCANE,  
Offg. Secy. to the Govt. of Bengal.

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.											
			AIR PRESSURE.			WIND.		TEMPERATURE.						
			Mean barometric height, 8 A. M., reduced to 32°.	Mean reduced to sea-level and constant gravity, lat. 45°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.
ORISSA.	Puri	Puri	29.075	29.030	—	N	199	88.2	24 & 26 Oct.	72.6	27th Oct.	87.6	74.6	81.1
		Gopalpore	29.077	29.034	+0.045	NNW	239	86.7	23 to 25 „	69.1	25th „	86.3	71.9	78.7
		False Point	29.076	29.030	+0.045	N	171*	85.0	24 & 26 „	70.1	27th „	85.1	72.2	78.7
	Cuttack	Cuttack	29.012	29.036	+0.043	Calm	39	88.2	23rd „	69.8	25th „	87.4	71.0	79.2
Balasore	Balasore	29.041	29.044	+0.043	NWly	89	86.4	22 & 24 „ to 28.	68.9	24th „	86.3	70.0	76.2	
Midnapore	Midnapore	29.058	29.067	+0.041	Nly	66	87.3	24 & 28 „	69.2	23rd „	86.0	70.6	78.2	
24-Parganas	Calcutta	29.065	29.032	+0.032	Nly	62	84.6	25 to 28 „	70.7	24th „	84.3	72.2	78.3	
	Saugor Island	29.060	29.030	+0.035	Variable	230	85.2	22, 26, 27, & 24.	72.0	24 & 28 „	84.7	73.4	79.1	
SOUTH-WEST BENGAL.	Howrah	Howrah	—	—	—	—	—	—	—	—	—	—	—	—
	Nadia	Krishnagar	29.040	29.036	+0.041	NWly	96	86.3	28th „	70.7	23 & 26 „	84.7	72.1	78.4
	Khulna	Jessore	29.047	29.027	+0.025	NWly	70	86.5	30th „	71.4	24th „	85.3	72.9	79.1
	Burdwan	Burdwan	?	?	?	Nly	63	86.1	28th „	71.7	23rd „	84.8	72.9	78.9
		Raniganj	29.081	29.071	+0.065	NWly	42	92.7	23 & 28 „	68.9	23 & 28 „	88.7	70.3	79.6
	Bankura	Bankura	29.086	29.042	+0.037	Calm	39	85.6	25 & 28 „	69.1	23rd „	84.0	70.8	77.9
	Birbhum	Birbhum	—	—	—	—	—	—	—	—	—	—	—	—
	Murshidabad	Borhampore	29.028	29.044	+0.033	Nly	42	85.1	27 & 28 „	72.3	23rd „	83.4	73.4	78.6
	Pabna	Sirajganj	29.036	29.032	+0.032	Calm	44	86.1	28th „	68.7	26th „	84.4	71.3	77.9
	Bogra	Bogra	29.021	29.035	+0.050	Calm & NE.	41	86.2	28th „	68.2	27 & 28 „	83.8	69.1	70.6
NORTH BENGAL.	Rajshahi	Rampur Bonga	29.007	29.028	+0.035	NEly	83	85.6	27th „	70.7	23rd „	83.5	71.8	77.7
	Malda	Malda	29.022	29.055	—	NW	72	85.6	28th „	68.6	27th „	83.6	70.6	77.1
	Dinajpur	Dinajpur	29.084	29.064	+0.055	NEly	80	86.1	28th „	69.2	23rd „	84.7	70.3	77.6
	Rangpur	Rangpur	29.084	29.063	+0.036	NEly	34*	85.8	26 to 28 „	67.7	23rd „	84.7	69.1	77.0
	Jalpaiguri	Jalpaiguri	29.751	29.004	+0.068	N & Ely	48	86.4	29th „	65.6	22 & 28 „	84.8	67.0	70.3
	Kuch Bihar	Kuch Bihar	—	—	—	—	—	—	—	—	—	—	—	—
	Darjeeling	Darjeeling	29.095	—	+0.032	Variable	80	60.6	22nd „	45.7	27 & 28 „	58.7*	46.8*	52.8*
	Sikim	Gantong	—	—	—	SEly	75	47.9	26th „	24.6	28th „	46.1	25.5	37.3
	Chittagong	Chittagong	29.067	29.002	+0.062	NEly	105	89.7	24th „	70.1	22nd „	83.9	72.0	78.0
	Chittagong Hill Tracts	Demagiri	—	—	—	—	—	—	—	—	—	—	—	—
EAST BENGAL.	Hackergunge	Barisal	29.030	29.088	+0.045	Calm & NNE.	101	86.3	25 & 26 Oct.	70.9	23rd „	83.9	73.0	78.3
	Noakhali	Noakhali	29.080	29.079	+0.007	NEly	148	85.5	26th „	68.8	22nd „	81.4	72.0	77.2
	Faridpur	Faridpur	29.030	29.033	+0.020	Variable	54	85.9	27th „	70.9	24th „	83.4	72.3	77.8
	Dacca	Dacca	29.046	29.016	+0.025	N	101	87.6	25th „	70.7	22nd „	84.7	71.8	78.3
	Tippera	Tippera	29.030	29.014	+0.026	N	86	87.4	27th „	68.8	22 & 23 „	83.6	71.7	77.6
	Mymensingh	Mymensingh	29.019	29.030	+0.037	NEly	65	86.2	28th „	70.1	25 & 27 „	83.3	71.3	77.3
	Purnea	Purnea	29.086	29.063	+0.058	Calm	10	85.2	28th „	67.2	22nd „	84.1	70.2	77.1
	Bhagalpur	Bhagalpur	29.043	29.039	+0.006	Calm	6	85.2	22 & 26 „ to 28.	68.0	22nd „	84.7	69.4	77.1
	Darbhanga	Darbhanga	29.047	29.046	+0.005	NWly	32	84.4	28th „	68.2	22nd „	83.6	70.7	77.2
	Muzaffarpur	Muzaffarpur	29.035	29.070	—	Calm & WSW	27	84.7	24th „	68.2	26th „	83.2	69.1	76.2
NORTH BIHAR.	Champaner	Champaner	29.074	29.060	+0.050	SSW	54	86.2	24 & 26 „	65.8	26th „	83.9	67.7	75.8
	Narain	Chhapra	29.030	29.008	+0.007	Variable	37	86.3	26th „	66.0	23th „	84.8	69.9	70.9
	Shahabad	Dohri	29.083	29.096	+0.006	SSW	80	85.3	24 & 26 „	64.5	23th „	84.0	67.4	75.7
	Gaya	Buxar	29.077	29.077	+0.050	Wly	33	86.6	25th „	66.3	26th „	84.9	69.3	77.1
	Patna	Patna	29.041	29.074	+0.055	NEly	119	86.4	25 & 26 „	66.7	23, 26, & 27 „	85.4	68.4	76.9
	Monghyr	Bankipore	29.034	29.072	+0.055	Wly	20	84.5	26th „	63.7	22 & 26 „	83.7	70.1	76.9
	South Parganas	Naya Dunda	29.010	29.060	+0.061	NWly	29*	84.0	26 & 28 „	68.4	25 & 28 „	83.7	69.3	76.5
	Hazaribagh	Hazaribagh	29.087	29.074	+0.041	Calm	90	86.7	26th „	69.2	24th „	79.0	62.0	70.8
	Lohardaga	Ranchi	29.057	29.063	+0.029	NWly	48	79.5	26th „	61.9	22nd „	78.6	62.7	70.6
	Palamau	Dumkani	—	—	—	—	—	—	—	—	—	—	—	—
CHOTA NAAGPUR.	Singbhum	Chaubassa	29.033	29.056	+0.063	Calm	15	86.0	26 & 27 „	64.9	22nd „	84.1	67.2	75.7
	Sibsagar	Sibsagar	29.075	29.049	+0.087	NEly	—	85.6	27th „	66.4	24, 25, 27 „	79.2	67.0	73.1
	Goalpara	Dhubri	29.089	29.060	+0.030	NEly	210	84.7	22nd „	65.9	27th „	81.9	67.5	74.7
	Cachar	Silchar	29.091	29.062	+0.056	Calm	—	89.0	26th „	66.3	24th „	85.1	69.3	77.3
ASSAM.														

\* Mean of 6 days.

**Explanation.—Summary.**—The normal means of air pressure and temperature are the arithmetical average or means of the reading during the same period. The humidity of the atmosphere is expressed in percentage, saturated air being presented by 100. A clear sky is denoted by 0 and an overcast sky by 101. The normal means of the amount of the rainfall in that district determined from the returns sent in by the subdivisional stations are the arithmetical means or average of the rainfall at the subdivisional stations in the district sending in returns divided by the number of stations. A rainy day is one of



for the week ending Saturday, the 28th of October 1893.

DISTRICT OBSERVATIONS.															DISTRICT.	
Variation from normal mean.	Mean 8 A.M., temperature.	Average humidity at 8 A.M.	Average cloud amount at 8 A.M.	Rainfall of week at observing station.	OF WEEK.				RAINFALL.							
					Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Since 1st of month.			Since 16th October 1895.				
									Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.		
-	78.0	76	1.4	0.23		2.27		1.64		7.81			3.45		Puri.	
-2.6	75.8	80	0.3	0.05												
-0.7	78.0	83	4.6	0.11												
-1.8	76.7	73	1.1	0.06		1.68		1.41		5.59			2.34			Cuttack.
-0.1	75.9	86	1.6	Nil		0.93		1.12		5.09			1.54		Halasore.	
-0.1	76.5	82	2.9	0.08	0.16	1.58	0.50	0.95	5.00	5.14	-3.11	3.29	2.65	+0.84	Midnapore.	
-0.6	77.0	84	3.0	0.05	0.10	1.24	0.14	1.21	6.04	4.97	+1.07	2.42	2.34	+0.08	24-Paranana.	
-0.9	77.0	87	5.4	0.58												
					0.33	0.65	0.67	0.82		3.80			1.43			Howrah.
					0.08	0.79	0.33	0.89		4.22			1.76			Hooghly.
-1.0	78.2	80	3.7	0.56		0.80		1.04		4.24			1.01		Nadia.	
-1.0	77.4	89	3.6	0.27	0.46	1.10	1.06	1.12	4.26	4.04	-0.24	2.16	2.34	-0.09	Khulna, Jessore.	
					0.11	0.99	0.40	1.05	3.62	4.14	-0.52	0.83	1.64	-1.01		
-0.9	76.8	82	1.4	0.04	0.27	0.76	0.50	0.90	3.84	3.82	+0.02	1.99	1.61	+0.38	Burdwan.	
+0.7	75.5	83	0	0.02												
-1.7	75.4	79	2.7	Nil	0.16	0.77	0.50	0.73	3.55	3.58	-0.03	2.23	1.57	+0.64	Bankura.	
-0.9	75.7	91	3.6	Nil	Nil	0.43	0.90	0.54	3.50	3.10	+0.01	1.76	1.50	+0.20	Birbhum.	
						0.20		0.51		4.23			1.07		Murshidabad.	
-0.2	76.0	90	5.7	0.05	0.02	0.89	0.00	1.18	3.84	4.95	+0.16	2.97	2.08	+0.94	Pabna.	
-1.0	75.9	86	2.3	0.38	0.15	0.45	0.75	0.50	7.86	4.54	+3.32	4.01	1.66	+2.35	Bogra.	
+0.2	77.0	86	3.1	Nil	0.45	0.55	0.67	0.76	4.88	4.11	+0.47	2.75	1.20	+1.44	Rajshahi.	
-	71.8	89	1.1	Nil	Nil	0.42	0.00	0.30	4.17	2.13	+1.74	3.13	0.80	+2.24	Malda.	
-0.3	74.8	86	1.4	Nil	Nil	0.34	0.90	0.38	4.10	2.70	+1.40	2.81	1.14	+1.67	Dinajpur.	
+0.1	74.9	86	0.7	Nil	0.01	0.60	0.01	0.61	2.71	4.37	-2.16	1.79	1.86	-0.07	Rangpur.	
0	74.2	82	3.6	Nil	Nil	1.57	0.00	0.80	2.84	5.30	-2.46	2.70	2.50	+0.20	Jalpaiguri.	
															Kuch Bihar.	
0	53.4	81	2.1	Nil	Nil	0.00	0.00	0.81	4.61	5.21	-0.60	3.65	1.64	+2.01	Darjeeling.	
-	59.0	80	0	0.07		1.10		0.80		6.11			1.96		Guatong.	
-0.4	76.1	93	6.4	3.10	4.09	1.79	2.00	1.45	13.41	6.57	+6.86	5.69	2.33	+3.36	Chittakong.	
					3.57	1.32	7.70	1.50	9.44	0.01	+3.43	5.31	1.88	+3.43	Chittagong Hill	
+0.1	77.9	88	3.6	3.30	3.22	1.23	2.00	1.19		5.44			2.05		Tracts.	
-0.9	77.1	91	2.6	0.66		0.90		1.08		6.38			1.83		Backergunge.	
-0.7	76.5	89	2.9	0.05		0.67		1.07		4.56			1.71		Noakhali.	
-1.8	76.6	86	3.3	0.07	1.12	0.89	1.75	1.13	5.73	4.36	+1.37	3.17	1.06	+1.51	Faridpur.	
-1.8	76.0	87	4.6	2.62	2.05	0.87	2.25	0.87		5.11			1.66		Dacca.	
-1.5	75.8	89	3.9	0.28	0.36	1.16	1.00	1.10	5.44	5.64	-0.20	3.12	2.30	+0.82	Tippera.	
-0.2	74.8	89	2.1	Nil	Nil	0.60	0.00	0.43	2.87	3.13	-0.45	2.66	1.08	+1.58	Mymensingh.	
+0.2	77.5	83	1.0	Nil	Nil	0.17	0.00	0.41	2.94	3.31	-0.37	2.40	0.98	+1.51	Purnea.	
-0.9	76.8	85	0.3	Nil	Nil	0.19	0.00	0.25	6.35	2.15	+3.40	5.89	0.77	+5.12	Bhagalpur.	
-	75.0	86	0.2	Nil	Nil	0.40	0.00	0.34	8.14	3.01	+4.84	7.04	0.76	+6.55	Darbhanga.	
+0.2	75.0	83	1.0	Nil	Nil	0.00	0.00	0.11	8.85	3.50	+5.00	6.55	0.23	+8.27	Muzaffarpur.	
-0.2	77.3	77	0.9	Nil	Nil	0.47	0.00	0.34	6.30	4.27	+2.03	5.55	0.60	+1.86	Ona upatan.	
-0.0	75.6	81	0.3	Nil											Saran.	
-0.6	75.0	85	1.6	Nil	Nil	0.62	0.00	0.69	5.43	3.23	+2.17	5.34	0.94	+4.40	Shahabad.	
+0.4	75.9	86	0.7	Nil												
-1.0	74.0	81	1.4	Nil	Nil	0.41	0.00	0.49	2.27	3.00	-0.43	2.46	0.71	+1.75	Gaya.	
-1.4	77.6	72	3.6	Nil	Nil	0.73	0.00	0.69	5.06	3.29	+1.77	4.32	1.03	+3.23	Patna.	
					0.10	0.59	0.33	0.55	2.01	3.05	-1.07	1.71	1.05	+0.66	Monkhyr.	
-0.3	76.1	79	0.9	0.02	0.01	0.64	0.00	0.62	4.01	3.73	+0.28	2.43	1.30	+1.13	Southal Patnara.	
-2.4	70.4	79	1.3	Nil	Nil	0.33	0.00	0.50		3.00			0.82		Hazaribagh.	
-2.1	69.1	84	2.3	Nil	Nil	0.54	0.00	0.53	4.57	3.64	+1.93	3.24	0.95	+2.29	Lohardaga.	
						0.36		0.35		2.14			0.61		Palamou.	
-2.0	74.1	80	4.0	Nil	Nil	0.81	0.00	1.05	8.76	2.77	-3.01	0.76	1.18	-0.42	Singbhum.	
					Nil	0.71	0.00	0.63	3.06	3.35	+0.29	1.94	1.13	+0.81	Manikua.	
-2.5	70.8	87	5.1	1.29												
-3.2	72.1	90	4.3	Nil												
-1.0	73.3	90	5.1	3.54												

for the last ten years. The variations are *negative* when the mean for the week is less than the corresponding normal mean, and *positive* when greater. The numbers denoting cloud amount represents the part of the sky covered the whole sky being denoted by 10. Under the head District observations of for the period in question during the past ten years. The means of the district are the numerical average of the rainfall returned to the which at least a tenth of an inch fell.





## Statement of Rainfall in Bengal for the week ending Saturday (8 a.m.), the 28th of October 1893—continued.

District.	Station.	RAINFALL.							Total number of rainy days.	Rainfall of week.	Average rainfall of week.	Total rainfall since 1st of month.	Average total rainfall from 1st of month.	Total rainfall since 18th May 1893.	Average rainfall from 18th May to date.
		Sunday, 2nd.	Monday, 3rd.	Tuesday, 4th.	Wednesday, 5th.	Thursday, 6th.	Friday, 7th.	Saturday, 8th.							
NORTH BENGAL—continued.	Muzaffarpur.	Ratanpuri	...	...	...	...	...	...	Nil	Nil	0.14	7.08	3.63	7.08	0.46
		Muzaffarpur	...	...	...	...	...	...	Nil	Nil	0.83	11.14	3.18	11.14	1.08
		Hajipur	...	...	...	...	...	...	Nil	Nil	0.40	6.22	4.05	4.73	0.79
	Champeran.	Pura	...	...	...	...	...	...	Nil	Nil	?	?	?	?	?
		Mahua (Chitwarra).	...	...	...	...	...	...	Nil	Nil	?	4.05	?	3.97	?
		Alwar	...	...	...	...	...	...	Nil	Nil	?	7.51	?	7.54	?
		Patna	...	...	...	...	...	...	Nil	Nil	0.10	8.40	3.40	8.40	0.84
		Wahari	...	...	...	...	...	...	Nil	Nil	0.02	8.70	3.69	8.70	0.21
	Baran.	Baran	...	...	...	...	...	...	Nil	Nil	?	7.36	?	7.36	?
		Baran	...	...	...	...	...	...	Nil	Nil	0.08	5.04	?	5.04	0.19
		Gopiganj	...	...	...	...	...	...	Nil	Nil	0.81	4.25	?	4.25	1.01
		Siwan	...	...	...	...	...	...	Nil	Nil	?	4.25	?	4.25	?
		Siwan	...	...	...	...	...	...	Nil	Nil	0.55	4.23	3.55	4.23	0.69
		Onepara	...	...	...	...	...	...	Nil	Nil	?	?	?	?	?
		Siwan	...	...	...	...	...	...	Nil	Nil	?	?	?	?	?
SOUTH BENGAL.	Rahababad.	Buxar	...	...	...	...	...	...	Nil	Nil	0.69	8.47	3.38	8.47	0.89
		Buxar	...	...	...	...	...	...	Nil	Nil	0.46	5.30	2.02	5.31	0.93
		Buxar	...	...	...	...	...	...	Nil	Nil	0.50	3.13	?	3.13	0.88
		Buxar	...	...	...	...	...	...	Nil	Nil	0.70	3.00	?	3.00	1.10
		Buxar	...	...	...	...	...	...	Nil	Nil	0.51	3.37	?	3.37	0.90
		Buxar	...	...	...	...	...	...	Nil	Nil	?	?	?	?	?
		Buxar	...	...	...	...	...	...	Nil	Nil	?	?	?	?	?
		Buxar	...	...	...	...	...	...	Nil	Nil	?	?	?	?	?
		Buxar	...	...	...	...	...	...	Nil	Nil	?	?	?	?	?
		Buxar	...	...	...	...	...	...	Nil	Nil	?	?	?	?	?
	Gaya.	Aurangabad	...	...	...	...	...	...	Nil	Nil	0.21	3.49	3.00	3.37	0.43
		Gaya	...	...	...	...	...	...	Nil	Nil	0.53	1.87	2.35	1.63	0.75
		Gaya	...	...	...	...	...	...	Nil	Nil	0.51	2.11	2.03	2.00	0.73
		Gaya	...	...	...	...	...	...	Nil	Nil	0.37	2.01	3.17	2.91	0.87
		Gaya	...	...	...	...	...	...	Nil	Nil	?	0.22	?	0.22	?
		Gaya	...	...	...	...	...	...	Nil	Nil	?	3.75	?	3.75	?
		Gaya	...	...	...	...	...	...	Nil	Nil	?	3.68	?	3.68	?
		Gaya	...	...	...	...	...	...	Nil	Nil	?	3.11	?	3.11	?
		Gaya	...	...	...	...	...	...	Nil	Nil	?	1.46	?	1.46	?
		Gaya	...	...	...	...	...	...	Nil	Nil	0.78	0.13	3.41	5.41	1.13
	Patna.	Patna	...	...	...	...	...	...	Nil	Nil	0.70	1.18	3.29	9.31	1.03
		Patna	...	...	...	...	...	...	Nil	Nil	0.72	1.77	3.23	1.87	1.09
		Patna	...	...	...	...	...	...	Nil	Nil	0.75	1.14	3.20	1.14	1.13
		Patna	...	...	...	...	...	...	Nil	Nil	?	1.39	?	1.39	?
		Patna	...	...	...	...	...	...	Nil	Nil	?	3.23	?	2.23	?
	Monghyr.	Bogusara	...	...	...	...	...	...	Nil	Nil	0.72	1.23	2.95	1.23	1.06
		Monghyr	...	...	...	...	...	...	Nil	Nil	0.34	1.05	3.62	1.05	1.29
		Monghyr	...	...	...	...	...	...	0.29	1	0.29	2.81	2.03	1.90	0.78
		Monghyr	...	...	...	...	...	...	Nil	Nil	?	?	?	?	?
		Monghyr	...	...	...	...	...	...	Nil	Nil	?	1.12	?	1.12	?
	Sonthal Parganas.	Shakhpura	...	...	...	...	...	...	Nil	Nil	?	3.10	?	1.85	?
		Shakhpura	...	...	...	...	...	...	Nil	Nil	?	?	?	?	?
		Shakhpura	...	...	...	...	...	...	Nil	Nil	0.47	3.03	3.00	3.52	0.85
		Shakhpura	...	...	...	...	...	...	Nil	Nil	0.35	3.95	3.07	4.32	0.95
		Shakhpura	...	...	...	...	...	...	Nil	Nil	0.02	4.15	4.50	4.73	1.86
		Shakhpura	...	...	...	...	...	...	Nil	Nil	0.64	4.50	4.18	1.17	1.34
		Shakhpura	...	...	...	...	...	...	Nil	Nil	1.00	3.21	4.24	1.63	1.80
		Shakhpura	...	...	...	...	...	...	Nil	Nil	0.77	4.64	3.33	3.15	1.00
		Shakhpura	...	...	...	...	...	...	Nil	Nil	?	Nil	?	Nil	?
		Shakhpura	...	...	...	...	...	...	Nil	Nil	?	?	?	?	?
NORTH BENGAL.	Hasaribagh.	Pachamba (Girdih).	...	...	...	...	...	...	Nil	Nil	0.69	3.79	3.22	3.24	1.38
		Pachamba	...	...	...	...	...	...	Nil	Nil	0.49	3.30	?	?	0.84
		Pachamba	...	...	...	...	...	...	Nil	Nil	0.15	2.94	?	?	0.54
		Pachamba	...	...	...	...	...	...	Nil	Nil	0.16	2.50	?	?	0.31
		Pachamba	...	...	...	...	...	...	Nil	Nil	0.44	2.02	?	?	0.89
	Lohardaga.	Lohardaga	...	...	...	...	...	...	Nil	Nil	?	2.37	?	1.97	?
		Lohardaga	...	...	...	...	...	...	Nil	Nil	?	2.34	?	1.61	?
		Lohardaga	...	...	...	...	...	...	Nil	Nil	?	?	?	?	?
		Lohardaga	...	...	...	...	...	...	Nil	Nil	0.64	4.54	2.36	3.02	0.80
		Lohardaga	...	...	...	...	...	...	Nil	Nil	0.32	2.91	?	?	1.00
	Palamau.	Palamau (Daltanganj).	...	...	...	...	...	...	Nil	Nil	0.35	2.74	?	?	0.61
		Palamau	...	...	...	...	...	...	Nil	Nil	?	6.71	?	1.88	?
		Palamau	...	...	...	...	...	...	Nil	Nil	?	5.70	?	4.73	?
		Palamau	...	...	...	...	...	...	Nil	Nil	?	3.56	?	2.85	?
		Palamau	...	...	...	...	...	...	Nil	Nil	0.80	0.76	2.77	0.76	1.18
	Siakhpur.	Siakhpur	...	...	...	...	...	...	Nil	Nil	?	1.75	?	?	?
		Siakhpur	...	...	...	...	...	...	Nil	Nil	?	?	?	?	?
		Siakhpur	...	...	...	...	...	...	Nil	Nil	?	?	?	?	?
		Siakhpur	...	...	...	...	...	...	Nil	Nil	?	?	?	?	?
		Siakhpur	...	...	...	...	...	...	Nil	Nil	?	?	?	?	?
	Manbhag.	Manbhag	...	...	...	...	...	...	Nil	Nil	0.67	3.10	3.18	1.98	1.15
		Manbhag	...	...	...	...	...	...	Nil	Nil	0.75	4.81	3.67	3.85	1.11
		Manbhag	...	...	...	...	...	...	Nil	Nil	0.07	1.37	?	1.07	?
		Manbhag	...	...	...	...	...	...	Nil	Nil	?	3.76	?	2.02	?
		Manbhag	...	...	...	...	...	...	Nil	Nil	?	3.80	?	2.48	?
	Pandra.	Pandra	...	...	...	...	...	...	Nil	Nil	0.40	3.92	?	3.92	?
		Pandra	...	...	...	...	...	...	Nil	Nil	?	3.47	?	?	?
		Pandra	...	...	...	...	...	...	Nil	Nil	?	?	?	?	?
		Pandra	...	...	...	...	...	...	Nil	Nil	?	?	?	?	?
		Pandra	...	...	...	...	...	...	Nil	Nil	?	?	?	?	?

Explanation.—... indicates that no rain has fallen. If the return for any day has not been received, the corresponding space is left blank. If any of the returns are wrong, the corresponding spaces in the total rainfall columns are left blank. With reference to the column of rainy days, the definition of a rainy day is when at least 1 inch of rain has fallen.

Calcutta, the 31st October 1893.

**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSERVATIONS TAKEN IN ASSAM, FOR THE WEEK ENDING 8 A.M., SATURDAY, THE 28TH OF OCTOBER 1898.**

It will be remembered that at the end of the previous week a small but intense storm had formed in the neighbourhood of Diamond Island, and at 8 a.m. on the morning of the 21st was near the centre of the northern half of the Bay. It was then giving few indications of its existence at the meteorological stations, and none of its intensity or direction of motion. After moving in a north-westerly direction it appears to have changed gradually towards the north-east, and on the morning of Sunday, the 22nd, rushed with great rapidity towards the mouth of the Megna, the centre of the disturbance probably passing close to Noakhali. At 8 a.m. on the 22nd pressure fell more than a quarter of an inch at Chittagong, Noakhali and Barisal, the wind blowing with moderate strength from east at the first station and from north-east at the other two. The centre was then probably to the south of the line joining Chittagong and Barisal and equally distant from them, but as its rate of motion appears to have been unusually high, it must have passed over Noakhali some time during the next two hours. At 11 o'clock pressure was rising at Chittagong, and the storm-wave which accompanied the depression was then reported to be passing up the river there. From Noakhali no information has been received regarding the passage of the disturbance. That hurricane winds blew over the north-east of the Bay and in East Bengal to some distance from the coast is shown by the fact that the Mutlah light-ship broke loose from her anchorage, and much damage was done to the shipping between Narainganj and Chittagong. Wind velocity rose to 25 miles at Chittagong on Sunday, but as the storm was of small extent and soon reached the hilly ground to the east of Tippera, it was very shortlived after passing inland. Pressure rose rapidly and the rough weather as quickly moderated. So far very little appears to be known regarding the storm-wave which washed over part of the islands at the mouth of the Megna. There is, however, sufficient to show that it must have devastated the parts near the coast, causing great destruction to property and probably loss of human life.

General heavy rain fell in East Bengal on the first two days of the week, and light scattered showers in other parts of Lower Bengal and Orissa, but except near the centre of the depression weather continued fine, and the only change was in the light cloud disappearing after the rapid rise of pressure mentioned above. From the 22nd onwards till the end of the week fine clear weather with northerly winds prevailed over the province. In the south of the Bay, however, an apparently immediate result of the recovery of pressure in the north-east of the Bay was the beginning of another which caused cyclonic winds at the Burma stations. Judging from reports received from the shipping, it must have commenced near the centre of the Bay, because squally weather was experienced about longitude  $88^{\circ}$  and latitude  $16^{\circ}$  on the 24th. Its course from the start very probably was to the north-east, and it struck the coast of Burma, moving in this direction about the end of the week, at no great distance to the north of Diamond Island. Pressure changes were small everywhere, but a regular cyclonic circulation of winds prevailed over the whole Bay area. Wind velocity steadily increased at Diamond Island, till on the 27th an average of 50 miles was reported for the 24 hours preceding 8 a.m. on that date. It soon after crossed the coast and, as in the case of the one at the beginning of the week, diminished much in intensity on encountering the hilly ground near the coast. The stormy weather which accompanied its advance soon passed away.

As this disturbance did not approach the north coast of the Bay, its influence in Bengal was very slight, being shown only in the increase of cloud in the southern districts, and in a few light showers. The northerly winds increased somewhat in strength, but soon fell off as the pressure distribution became normal.

Pressure changes have been small except during the passage of the depression at the beginning of the week, when there was a large fall at stations in East Bengal and a rapid rise afterwards. In the middle of the week the small oscillations characteristic of settled weather obtained, but during the last two days, while the second depression was developing in the east of the Bay, a steady slow fall prevailed over the province. The mean pressure for the week is above the normal in all districts by about  $\cdot 03$  inch in East Bengal, and  $\cdot 05$  inch elsewhere.

**Temperature.**—Day temperature has generally been below and night temperature above the normal, at times by several degrees. Means are below the normal everywhere: by less than half a degree in North Bihar and North Bengal; by between half and one degree in South Bihar, South-West Bengal and East Bengal; by  $1\cdot 3^{\circ}$  in Orissa, and by more than  $2^{\circ}$  in Assam and Chota Nagpur.

**Rainfall.**—The only rain of importance reported during the week fell on the 21st and 22nd in East Bengal while the disturbance was crossing the south-eastern districts. The falls were heavy on both days at some stations, but especially at Noakhali, Danlathgan, Cox's Bazar and Chittagong. The average for the whole district is  $2\cdot 14$  inches more than double the normal. Light showers fell in parts of Orissa, South-West Bengal, North Bengal and South Bihar, but no rain fell in North Bihar and Chota Nagpur.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 28th of October 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.						RAINFALL.									
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.		Since 16th May 1892.	
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.
Orissa ... ..	88.2	68.0	86.5	71.8	79.2	-1.3	0.10	1.54	-1.44	0.50	1.85	-0.85	6.27	5.98	5.38	2.38
South-West Bengal ... ..	92.7	68.0	83.2	72.1	78.7	-0.7	0.10	0.87	-0.71	0.04	0.93	-0.94	4.63	4.23	1.93	1.88
North Bengal ... ..	86.4	65.6	84.2	70.0	77.1	-0.4	0.12	0.58	-0.46	0.50	0.61	-0.11	4.41	4.40	2.90	1.54
East Bengal ... ..	89.7	68.8	83.4	72.1	77.8	-1.0	2.14	1.05	+1.09	1.73	1.13	+0.60	7.28	5.87	4.02	1.33
North Bihar ... ..	86.3	65.8	81.0	69.4	76.7	-0.2	Nil	0.43	-0.43	0.00	0.30	-0.30	3.32	3.44	5.08	0.78
South Bihar ... ..	86.6	64.5	84.5	69.0	76.8	-0.6	0.02	0.61	-0.59	0.05	0.58	-0.53	3.97	3.32	5.33	1.06
Chota Naxpur ... ..	86.0	61.2	80.7	64.0	72.4	-2.2	Nil	0.51	-0.51	0.00	0.64	-0.64	3.76	2.96	3.14	0.90
Assam ... ..	89.0	65.0	82.1	67.0	76.0	-2.5										

METEOROLOGICAL OFFICE, BENGAL,

The 31st October 1893.

C. LITTLE,

Offg. Meteorological Reporter to the Govt. of Bengal.

### Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 22nd to 28th October 1893.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.						HYGROMETRY.			Rainfall, past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
October ...	22nd ...	29.914	79.4	84.9	11.1	73.8	81.6	75.5	.804	72.7	75	0.01
" ...	23rd ...	30.029	78.2	85.6	14.8	70.8	82.6	76.5	.832	73.7	75	"
" ...	24th ...	29.998	78.4	85.9	15.0	70.9	81.6	75.5	.803	72.6	75	"
" ...	25th ...	.994	79.0	85.2	14.4	71.8	81.6	74.8	.773	71.5	72	"
" ...	26th ...	.995	78.2	84.9	13.5	71.4	79.1	71.2	.680	66.9	66	"
" ...	27th ...	.970	78.9	85.9	14.1	71.8	82.6	76.0	.810	72.9	73	"
" ...	28th ...	.934	79.5	85.7	12.4	73.3	82.1	74.5	.753	70.7	69	"

The mean 10 A.M. pressure of the seven days ... .. Inches. 29.976

The mean temperature of the seven days ... .. 78.8

The extreme variation of temperature ... .. 15.4

The maximum temperature ... .. 86.2

The mean 10 A.M. relative humidity of the seven days ... .. % 72

The total fall of rain from 22nd to 28th October 1893 ... .. Inches. 0.01

The daily mean temperatures are the crude means of maximum and minimum temperatures.

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India,

METEOROLOGICAL OFFICE, INDIA,

The 30th October 1893.

Results of the Meteorological Observations taken at the Alipore Observatory from  
22nd to 28th October 1893.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32 Falt.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
		°		Inches	°	°	°	°	°	Inches	°	%			Inches	
Oct	22nd	144.5	5.0	29.885	78.5	93.9	10.0	78.9	74.8	0.813	73.0	83	N and NNW	134	Nil	Partially cloudy, o, g.
"	23rd	142.7	10.4	960	77.9	83.7	11.8	72.4	78.5	.770	71.4	81	NNW and calm	45	"	Clear
"	24th	147.1	10.5	.952	77.8	81.0	13.7	70.9	74.5	.813	78.0	86	NNW and calm	48	"	Chiefly clear, d.
"	25th	142.7	9.8	934	78.0	81.6	12.5	72.1	74.1	.700	72.1	83	Nly, E and calm	44	"	Chiefly clear, d.
"	26th	142.5	9.7	926	77.5	84.6	13.5	71.1	73.8	.786	72.0	84	NNE and calm	33	"	Chiefly clear, d.
"	27th	143.2	6.3	899	78.0	81.8	12.5	72.3	74.6	.812	73.0	85	NNW and calm	27	"	Partially cloudy, d.
"	28th	143.5	7.2	868	79.2	85.6	12.4	73.2	73.7	.759	71.0	76	N, NNW and calm	56	"	Partially cloudy, o, d.

The mean pressure of the seven days ...	Inches.	29.917
The average pressure of the corresponding period for 24 years, Surveyor-General's Office ...		29.861
The total number of hours of bright sunshine ...	Hours.	58.9
The maximum possible number of hours of sunshine ...		79.8
The mean temperature of the seven days ...		78.1
The average temperature of the corresponding period for 24 years, Surveyor-General's Office ...		79.5
The extreme variation of temperature ...		14.7
The maximum temperature ...		85.6
The highest velocity of the wind in one hour ...	Miles.	12
The highest pressure of wind on one square foot ...	lbs.	?
The mean relative humidity ...	%	83
The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office ...		78
The total fall of rain from 22nd to 28th October 1893 ...	Inches.	Nil
The average fall of the corresponding period for 24 years, Surveyor-General's Office ...		1.76
The total fall from 1st January to 28th October 1893 ...		85.20
The average fall of the corresponding period for 24 years, Surveyor-General's Office ...		64.33

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o, overcast; g, gloomy; d, dew.

## CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 14th October 1893, as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 14TH OCTOBER 1893.			WEEK ENDING SATURDAY, THE 13TH OCTOBER 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ... ..	788	56,180	662	243	77,850	1,265
Jute ... ..	310	1,97,125	2,718	351	1,18,475	2,061
Firewood ... ..	124	62,800	954	99	52,230	771
Other articles ... ..	1,155	2,24,595	3,509	1,057	2,18,445	3,133
Total ... ..	2,322	5,40,700	7,843	1,750	4,67,000	7,230

## CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 21st October 1893, as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 21ST OCTOBER 1893.			WEEK ENDING SATURDAY, THE 22ND OCTOBER 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ... ..	416	60,452	717	181	51,050	810
Jute ... ..	265	1,35,712	2,377	415	1,50,985	2,608
Firewood ... ..	119	68,625	1,031	194	42,760	629
Other articles ... ..	616	1,35,665	2,146	1,093	2,23,090	3,508
Total ... ..	1,416	4,00,454	6,271	1,823	4,67,875	7,555

## CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 28th October 1893, as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 28TH OCTOBER 1893.			WEEK ENDING SATURDAY, THE 29TH OCTOBER 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ... ..	652	55,175	614	132	36,650	622
Jute ... ..	349	1,50,550	2,604	387	1,12,400	2,011
Firewood ... ..	128	61,000	912	118	57,050	799
Other articles ... ..	931	1,73,025	2,647	934	2,35,810	3,791
Total ... ..	2,060	4,39,750	6,777	1,571	4,41,910	7,223



## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 14th October 1893, on 1,610½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	315,507	Rs. 3,38,241 A. P. 6 0	Mds. 20,75,044 S. 0	Rs. 6,32,790 A. P. 10 0	Rs. 15,540 A. P. 8 0	Rs. 9,80,551 A. P. 8 0	76,230½	109,619½	185,850½
Or per mile of railway ...	.....	210 0 4	.....	392 14 4	9 10 0	612 9 2	.....	.....	.....
For previous 14½ weeks of half-year ...	4,032,881	42,08,482 1 0	3,32,20,801 30	71,41,195 2 0	2,06,463 0 0	1,15,50,141 3 0	1,063,056½	1,368,551½	2,445,608
Total for 15½ weeks ...	4,348,478	45,46,723 7 0	3,61,95,845 30	77,73,056 12 0	2,22,012 3 0	1,26,42,692 6 0	1,169,287	1,472,271½	2,631,758½
COMPARISON.									
Total for corresponding week of previous year ...	257,968	3,28,532 7 0	23,84,439 30	5,07,040 0 5	18,336 8 2	9,13,018 0 4	75,940	98,787	109,887
Per mile of railway corresponding week of previous year ...	.....	203 15 11	.....	312 1 6	11 6 2	567 7 7	.....	.....	.....
Total for corresponding 15½ weeks of previous year ...	3,924,200	39,04,110 8 10	3,37,78,905 30	74,33,750 14 1	2,45,380 5 3	1,15,83,250 12 2	1,133,467	1,385,140	2,518,616

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 21st October 1893, on 1,610½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	271,326	Rs. 2,68,350 A. P. 9 0	Mds. 22,31,940 S. 0	Rs. 5,34,294 A. P. 11 0	Rs. 15,540 A. P. 3 0	Rs. 8,38,200 A. P. 7 0	75,254	100,485	175,739
Or per mile of railway ...	.....	176 15 1	.....	331 12 1	9 10 6	517 5 8	.....	.....	.....
For previous 15½ weeks of half-year ...	4,348,478	45,46,723 7 0	3,61,95,845 30	77,73,056 12 0	2,22,012 3 0	1,26,42,692 6 0	1,169,287	1,472,271½	2,631,758½
Total for 16½ weeks ...	4,619,804	48,30,080 0 0	3,84,27,791 30	83,08,251 7 0	2,37,561 0 0	1,39,76,892 13 0	1,234,541	1,572,956½	2,807,497½
COMPARISON.									
Total for corresponding week of previous year ...	222,401	2,77,496 7 1	25,71,109 30	5,68,973 5 5	17,738 2 0	8,04,107 14 6	74,404	100,640	175,136
Per mile of railway corresponding week of previous year ...	.....	172 4 9	.....	353 4 8	11 0 3	536 9 8	.....	.....	.....
Total for corresponding 16½ weeks of previous year ...	4,140,700	41,81,596 15 11	3,63,50,015 20	80,02,724 3 0	2,63,127 7 3	1,24,47,448 10 8	1,207,961	1,485,791	2,693,753

## TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 14th October 1893, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	20,502	Rs. 4,846 A. P. 1 0	Mds. 8,700 S. 0	Rs. 324 A. P. 11 0	Rs. 37 A. P. 0 0	Rs. 5,207 A. P. 12 0	801	105½	906½
Or per mile of railway ...	.....	217 12 10	.....	14 9 0	1 10 7	234 0 11	.....	.....	.....
For previous 14½ weeks of half-year ...	240,720	58,956 9 0	1,30,078 10	14,025 9 0	1292 0 0	63,274 2 0	12,705	1,000	13,774
Total for 15½ weeks ...	261,231	63,802 10 0	1,39,738 10	14,350 4 3	329 0 0	68,481 14 0	13,506	1,174½	14,770½
COMPARISON.									
Total for corresponding week of previous year ...	18,955½	4,742 12 1	11,807 0	608 5 0	8 1 6	5,350 2 7	897	71	968
Per mile of railway corresponding week of previous year ...	.....	213 2 6	.....	27 5 5	0 5 10	240 13 9	.....	.....	.....
Total for corresponding 15½ weeks of previous year ...	286,914½	70,163 12 0	91,269 0	3,639 0 0	115 0 6	73,927 13 3	13,504	933	14,867

\* Added number of passengers 17 and deducted Rs. 30  
 † Deducted amounts 1,747 and " 7½ on account of difference between the approximate and audited figures for the week ended 9th September 1893.  
 ‡ Ditto. " 2

## TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 21st October 1893, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	*19,082	*4,827 7 0	5,018 30	202 8 8	87 0 0	5,006 15 0	807	79	986
Or per mile of railway ...	.....	210 15 5	.....	9 1 8	1 10 7	227 11 8	.....	.....	.....
For previous 16½ weeks of half-year ...	201,231	63,802 10 0	1,39,738 10	4,350 4 0	329 0 0	68,481 14 0	13,596	1,174½	14,770½
Total for 16½ weeks ...	220,313	68,630 1 0	1,44,757 0	4,552 12 0	326 0 0	73,548 13 0	14,403	1,253½	15,716½
COMPARISON.									
Total for corresponding week of previous year ...	15,319	3,687 0 4	10,687 10	525 13 0	12 14 0	4,225 11 4	805	108	908
Per mile of railway corresponding week of previous year ...	.....	165 11 4	.....	23 10 2	0 9 3	189 14 9	.....	.....	.....
Total for corresponding 16½ weeks of previous year ...	302,233½	73,840 13 1	1,01,956 10	4,214 13 0	127 14 6	78,183 8 7	14,769	1,056	15,825

\* The increase is due to the "Durga Puja" holidays.

## DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for week ended 14th October 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	*18,742	*10,019 8 0	40,027 30	6,922 6 0	38 0 0	22,979 14 0	6,505	3,504½	10,000½
Or per mile of railway ...	.....	96 4 1	.....	32 14 3	6 3 9	142 6 1	.....	.....	.....
For previous 14½ weeks of half-year ...	726,541	*1,94,826 8 0	77,89,400 0	*1,04,638 15 0	\$613 0 0	2,99,971 7 0	87,429	38,945	126,374
Total for 14½ weeks ...	801,283	2,10,845 0 0	8,30,327 30	1,11,555 5 0	551 0 0	3,23,951 5 0	93,934	42,449½	136,383½
COMPARISON.									
Total for corresponding week of previous year ...	16,334½	13,374 15 3	39,105 10	7,347 6 9	68 7 6	20,785 12 9	6,527	2,448	8,970
Per mile of railway corresponding week of previous year ...	.....	82 14 0	.....	45 8 4	0 6 3	128 12 7	.....	.....	.....
Total for corresponding 14½ weeks of previous year ...	257,258½	1,83,728 9 4	5,32,586 20	97,518 9 6	686 3 6	2,81,920 6 4	98,313	35,928	134,241

\* The increase is chiefly in outwards traffic from Umballa and Kalka.

† Added number of passengers 607 and deducted Rs. 73.

‡ Deducted mounds 376 and added " 216½ on account of difference between the approximate and audited figures for the week ended 9th September 1893.

§ Added

## DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for week ended 21st October 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	*17,698	*16,583 2 0	51,467 10	8,432 9 0	38 0 0	25,053 11 0	6,091	3,544½	9,637½
Or per mile of railway ...	.....	102 11 11	.....	52 4 0	0 3 9	155 3 8	.....	.....	.....
For previous 16½ weeks of half-year ...	301,283	2,10,845 0 0	8,30,327 30	1,11,555 5 0	551 0 0	3,22,951 5 0	93,934	42,449½	136,383½
Total for 16½ weeks ...	318,981	2,27,428 2 0	8,81,895 0	1,19,987 14 0	589 0 0	3,48,005 0 0	100,025	45,999½	146,020½
COMPARISON.									
Total for corresponding week of previous year ...	13,756	14,127 9 0	41,063 20	7,675 12 0	53 18 9	21,867 1 9	6,589	2,703	9,293
Per mile of railway corresponding week of previous year ...	.....	87 8 6	.....	47 8 11	0 5 4	136 6 9	.....	.....	.....
Total for corresponding 16½ weeks of previous year ...	271,614½	1,07,866 2 4	6,93,629 0	1,05,191 5 6	739 0 3	2,03,786 8 1	104,896	38,631	143,524

\* The increase is due to the "Durga Puja" holidays.

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K.-D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for the week ended 14th October 1893, on 778 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	180,550	1,07,250 0 0	12,08,418 0	2,88,590 0 0	17,860 0 0	8,03,820 0 0	27,525	80,111	77,48
Or per mile of railway ...	232	138 0 0	1,553 0	307 0 0	*3 0 0	*418 0 0	.....	.....	.....
For previous 14 weeks of half-year ...	†2,314,025	9,95,675 0 0	1,16,08,775 0	22,66,468 0 0	2,82,759 0 0	31,04,308 0 0	402,109	438,321	840,680
Total for 15 weeks ...	2,495,175	11,02,925 0 0	1,28,17,185 0	25,05,058 0 0	2,80,139 0 0	38,84,122 0 0	429,434	488,632	918,06
COMPARISON.									
Total for corresponding week of previous year ...	154,034	72,644 0 0	8,14,431 0	2,00,088 0 0	15,012 0 0	2,89,514 0 0	27,518	41,872	68,300
Per mile of railway corresponding week of previous year ...	199	93 0 0	1,048 0	259 0 0	*2 0 0	*374 0 0	.....	.....	.....
Total to corresponding date of previous year ...	2,325,753	9,85,320 0 0	1,06,70,060 0	25,06,892 0 0	2,60,538 0 0	37,43,459 0 0	412,067	540,274	952,341

\* Excluding steamer earnings.

† Audited up to week ending 2nd September 1893.

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for the week ended 14th October 1893, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	31,210	13,410 0 0	55,760 0	4,230 0 0	180 0 0	17,820 0 0	3,929	1,743	5,672
Or per mile of railway ...	250	107 0 0	446 0	34 0 0	1 0 0	142 0 0	.....	.....	.....
For previous 14 weeks of half-year ...	418,602	1,37,419 0 0	8,01,631 0	65,831 0 0	1,803 0 0	2,05,053 0 0	62,981	27,484	80,465
Total for 15 weeks ...	479,812	1,50,829 0 0	8,57,451 0	70,061 0 0	1,983 0 0	2,22,873 0 0	66,910	29,227	86,137
COMPARISON.									
Total for corresponding week of previous year ...	26,056	10,013 0 0	60,017 0	5,023 0 0	297 0 0	15,331 0 0	3,614	2,058	5,672
Per mile of railway corresponding week of previous year ...	208	80 0 0	552 0	40 0 0	2 0 0	122 0 0	.....	.....	.....
Total to corresponding date of previous year ...	453,316	1,45,676 0 0	8,04,138 0	69,498 0 0	2,492 0 0	2,17,666 0 0	55,985	32,530	88,515

\* Audited up to week ending 2nd September 1893.

## DACCA STATE RAILWAY.

Approximate Return of Traffic for the week ended 14th October 1893, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	19,160	9,560 0 0	53,810 0	4,600 0 0	130 0 0	14,290 0 0	2,487	1,467	3,954
Or per mile of railway ...	223	111 0 0	620 0	53 0 0	2 0 0	166 0 0	.....	.....	.....
For previous 14 weeks of half-year ...	244,044	77,229 0 0	4,13,427 0	26,935 0 0	2,102 0 0	1,09,936 0 0	35,277	11,820	47,097
Total for 15 weeks ...	264,104	86,780 0 0	4,67,237 0	34,535 0 0	2,292 0 0	1,23,616 0 0	37,764	13,287	51,051
COMPARISON.									
Total for corresponding week of previous year ...	15,324	5,397 0 0	32,798 0	3,150 0 0	81 0 0	8,628 0 0	2,750	747	3,497
Per mile of railway corresponding week of previous year ...	178	63 0 0	381 0	36 0 0	1 0 0	100 0 0	.....	.....	.....
Total to corresponding date of previous year ...	241,381	78,214 0 0	2,03,807 0	23,192 0 0	3,222 0 0	1,04,638 0 0	38,765	10,597	49,362

\* Audited up to week ending 2nd September 1893.

BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIBHUT STATE RAILWAY.)

Approximate return of traffic for the week ending 21st October 1893, on 756 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs.	Mds.	Rs.	Rs.	Rs.			
Total traffic for the week on 756 miles open ... ..	72,670	30,340	232,110	(a) 28,900	7,800	67,040	16,328	13,911	30,239
Or per mile of railway ... ..	96.13	40.13	307.02	38.23	10.32	88.04	...	...	...
For previous 16½ weeks of half-year (b) ... ..	1,317,630	5,13,001	3,431,419	4,47,608	1,30,272	10,91,481	230,024	196,593	427,317
Total for 16½ weeks ... ..	1,420,300	5,43,941	3,663,529	4,76,508	1,38,072	11,69,521	246,962	210,504	457,466
COMPARISON.									
Total for corresponding week of previous year on 755 miles open ... ..	68,816	28,248	391,569	37,172	8,546	73,960	12,726	15,291	28,017
Per mile of corresponding week of previous year ... ..	91.15	37.42	303.30	49.23	11.39	97.07	...	...	...
Total to corresponding date of previous year ... ..	1,330,440	4,98,524	4,130,778	5,28,615	1,34,407	11,61,576	220,800	241,438	462,238

a The falling off in goods traffic is due to the continuous rainfall during greater portion of the week.  
b Includes audited figures up to 9th September 1893.

DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

						Rs.	A.	P.
Approximate earnings for the week ending 14th October 1893	...	...	...	...	...	13,504	0	0
Corresponding period of 1892	...	..	...	...	...	12,478	0	0
Increase	...	...	...	...	...	1,026	0	0
Receipts per mile for the week ending 14th October 1893	...	...	...	...	...	264	12	7
Corresponding period of 1892	...	...	...	...	...	244	10	9
Increase	...	...	...	...	...	20	1	10
Receipts from 1st July to 14th October 1893...	...	...	...	...	...	1,68,969	0	0
Corresponding period of 1892	...	...	...	...	...	1,74,869	0	0
Decrease	...	...	...	...	...	5,700	0	0



# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, NOVEMBER 8, 1893.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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## RESOLUTION ON THE ANNUAL GENERAL ADMINISTRATION REPORT OF THE ORISSA DIVISION FOR THE YEAR 1892-93.

### GENERAL DEPARTMENT—MISCELLANEOUS

*Dated, the 2nd November 1893*

RESOLUTION No 663T.—G.

READ—

The Annual General Administration Report of the Orissa Division for 1892-93.

Read also—

Government Resolution on the General Administration Report of 1891-92.

Mr. Toynee was in charge of the Division from the 1st to the 9th April, and again from the 28th June to the 16th November, the late Mr. Veasey from 10th April to the 27th June, and Mr. Cooke, by whom this report is submitted, for the rest of the year.

The Commissioners, as required by the orders of Government, spent more than four months on tour, and inspected all the district and subdivisional offices and treasuries, and the Collectors and Subdivisional Officers of the Division also were in camp for more than the prescribed period.

3. Though the rainfall was, except in Puri, short of that of the previous year, which was itself below the average, the outturn of winter rice—the most important crop of the Division—is reported to have been far better. The Commissioner suspects that in

the reports of estimated outturn of crops, 16 annas is treated as a bumper instead of being regarded as an average crop. This is a point to which the attention of the Director of the Agricultural Department has already been directed.

4. The public health was bad, the death-rate increased from 25·0 per mille in 1891 to 39·0 in 1892, the increase being shown in all districts. Deaths from cholera rose from 7,035 to 46,212. The increased mortality is attributed to long-continued drought, brackishness of drinking water resulting from the cyclone-wave of 1891, and to unwholesome food, but is, the Commissioner thinks, in no way caused by the influx of pilgrims. The number of recorded deaths from small pox increased from 4,926 in 1891-92 to 6,551 during 1892-93, while the number of persons vaccinated decreased from 95,994 to 43,875. The Lieutenant-Governor will await the explanation called for by the Commissioner regarding this remarkable falling off in vaccination.

5. The Collectors of the Division are of opinion that the unusually high prices of food-grains caused hardship to the poorer classes, resulting in a considerable increase of thefts and house-breaking. In Cuttack the Collector says that the landlords and mahajans between them took practically all the raiyats' crops in satisfaction of their demands; in Puri the throwing open by Government of waste land for *toila* (temporary) cultivation greatly assisted the aborigines without injuring the forests; while in part of Balasore considerable distress was felt among the poorer classes, some advances were made to cultivators for purchase of seed-grain, and small but sufficient relief works were opened by the District Board.

The Commissioner (Mr Cooke) has the following remarks regarding the condition of the people:—

"I have been frequently impressed with the tendency, everywhere observable, for Orissa to pose as a pauper Division. I personally have seen nothing to warrant this view. On the contrary, prices are lower here than elsewhere; the people are sturdy and well-nourished as compared with Bengalis; their pleas for abatements and remissions in khas mahal and wards' estates and applications for advances receive a more ready hearing than such applications receive in Bengal; they are provided with a costly system of irrigation for which they have not hitherto paid; the protective embankments of the Division are a charge on the province, and are not supported, as elsewhere, by local imposts.

It is a received article of faith among the natives of Orissa that their country is miserably poor, and that they are entitled to the indulgences of the sickly child of the family. From what I have gathered from Settlement Officers I do not think their claims are made out; but by force of iteration the view of the people has become the view of the officials, and all crop returns appear to support it. There were not wanting the usual vicissitudes to crops in this Division during 1892-93. The rainfall is said to have been deficient at sowing time, both in the case of early and late rice, and in Cuttack excessive in July, resulting in floods, which did some damage. There was also the not unusual visitation of caterpillar-blight in Cuttack. The only district in which there was any failure of crops necessitating official interference was Balasore, where there was a complete failure of crops in some villages, which was effectually dealt with by Mr. Cornish, without, I believe, the expenditure of much money in relief. The matter was of so trivial a nature that the District Officer does not relate how the scarcity was met. It is worthy of note that in spite of this the two main rice crops are reported to have been more favourable in Balasore than in either of the other districts. I can only repeat that I believe that the correct conception of an average crop is not understood in Orissa, especially in the Cuttack and Puri offices."

The daily wage of a common agricultural labourer varies from 1 anna 6 pie to 3 annas a day in Balasore, 2 annas 6 pie to 3 annas in Cuttack, and was 4 annas in Puri, which, though not so low as in Bihar, is considerably less than that which prevails in most of Bengal.

6. The principal manufacture is that of salt, which is made in the islands of the Chilka lake, under the supervision of the Salt Department. The system of direct manufacture was introduced during the year, and worked satisfactorily. There was a decline of 16 per cent. in the total value of the sea-borne trade, which is attributed partly to decreased demand from Madras ports, where most of the previous year's rice went from Puri, and partly to the opening up of the Bengal-Nagpur Railway, which carried rice that would otherwise have been exported *via* Cuttack.

Civil Justice.

7. The following statement shows the work done by Munsifs:—

DISTRICT.	Sub-division or cheuki.	Description of Court.	Number of officers.	NUMBER OF ORIGINAL CASES DISPOSED OF.		DETAILS OF CASES IN COLUMNS 5A AND 5B.			Number of witnesses examined.	Ratio of witnesses detained over two days per cent. of witnesses examined.	Ratio of cases pending at end of year per cent. of cases disposed of.
				Ordinary.	Small Cause Court.	Money.	Rent.	Title.			
1	2	3	4	5A	5B	6	7	8	9	10	11
Cuttack ... ..	Sadar ... ..	Munsif ... ..	1½	785	2,032	2,668	.....	149	1,062	9	14
	Kendrapura ... ..	Do. ... ..	1	517	1,470	1,917	.....	70	2,253	1	4
	Jajpur ... ..	Do. ... ..	1½	911	1,455	2,111	.....	265	2,106	16	12
Puri ... ..	Sadar ... ..	Do. ... ..	1	1,219	1,343	2,236	.....	100	1,735	15	18
Balasore ... ..	Do. ... ..	Do. ... ..	1½	771	1,308	1,848	.....	231	3,197	31	12
Total ... ..			6	4,293	7,508	10,840	.....	871	11,293	16	18
Total* for 1891-92 ... ..			7	3,978	9,407	12,632	.....	733	133,308	18	15

\* Includes the figures for Judges and Sub-Judges.

† Shows the number of witnesses who attended.

The ratio of witnesses detained over two days to the total number examined was 31 to 100 in the Balasore Munsif's court, where, however, the number of witnesses examined was very large, against only 1 to 100 in Kendrapara.

The total number of rent-suits (which in Orissa are tried by Deputy Collectors) disposed of during the year was 3,387, or less than one per thousand of the population. Of these, 749 were contested, 339 withdrawn, and 2,239 decided *ex parte*, while 301 cases were pending at the end of the year. The number of contested cases disposed of per officer was 45. In the Cuttack and Puri districts registers of witnesses not having been kept before the beginning of the year 1893-94, it is not possible to say what percentage of witnesses were detained for more than two days. The number of contested rent-suits is remarkably small.

8. The following statement gives statistics of the working of the Criminal Courts:—

DISTRICT.	Sub-division.	Class of officers.	Number of officers.	Cases disposed of.	Persons disposed of.	Ratio per cent. of persons convicted to disposed of.	Number of witnesses examined.	Ratio per cent. of witnesses detained over two days to total number examined.	Ratio per cent. of cases confirmed in appeal to total appealed.	Number of A cases disposed of.	Number remanded six times and more.	Average of cases disposed of per officer.	Average of witnesses examined per case disposed of.	Ratio per cent. of columns 13 to 11.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Cuttack ...	Sadar ...	Stipendiary ...	7½	1,800	2,469	63	7,003	7	68	653	8	261	4	1
	Jajpur ...	Ditto ...	1	509	787	68	3,142	3	71	215	3	569	6	1
	Kendrapara ...	Ditto ...	1	479	610	60	1,537	2	60	132	...	479	3	...
Puri ...	Sadar ...	Ditto ...	3½	694	1,176	68	2,110	1	83	472	8	230	4	2
	Khurda ...	Ditto ...	2½	594	968	67	1,635	8	74	257	1	237	3	3
Balasore ...	Sadar ...	Ditto ...	4	1,052	1,386	68	5,260	103	81	378	...	203	5	...
	Bhadrak ...	Ditto ...	2	653	710	69	3,346	...	47	218	2	276	6	9
Total ...			21½	5,961	8,009	66	125,073	3	73	2,345	22	277	4	9
Total for 1891-92 ...			21	4,651	6,264	60	26,009	3	77	1,715	114	221	6	6.6
Cuttack ...	Sadar ...	Honorary ...	1½	211	344	26	630	17	61	...	...	141	3	...
	Jajpur ...	Ditto ...	1	218	228	27	658	2	75	10	1	218	3	6
	Kendrapara ...	Ditto ...	1	106	111	42	320	5	67	...	...	106	3	...
Puri ...	Sadar ...	Ditto ...	1	735	765	91	886	1	70	85	...	735	1	...
	Khurda ...	Ditto ...	2*	76	96	45	308	...	60	13	...	38	4	...
Balasore ...	Sadar ...	Ditto ...	2	323	642	71	475	6	33	...	...	164	1	...
	Bhadrak ...	Ditto ...	1	88	96	28	196	...	100	...	...	88	9	...
	Chandbali ...	Ditto ...	1	50	80	76	145	...	100	...	...	50	3	...
Total ...			10½	1,621	2,062	61	3,580	4	60	119	1	173	2	7.8
Total for 1891-92 ...			8½	2,049	2,304	68	6,095	2	74	128	15	248	3	11

\* Includes one Special Magistrate who evidently was also engaged with other work.

† These figures show the number of witnesses who attended.

The total number of cases disposed of by Stipendiary Magistrates, the average number of cases disposed of per officer, and the ratio of cases confirmed on appeal to the total appealed, were all larger than in the previous year, while the ratio of witnesses detained more than two days was 3 per cent., the same as in the previous year. The Lieutenant-Governor regards these results as satisfactory. There was an increase of 1,042 offences reported, cognizable and non-cognizable, the increase in the former being due to the high prices that prevailed and consequent distress among the landless classes, and in the latter to fluctuations in miscellaneous cases under the different special Acts.

9. The following statement shows the attendance of Honorary Magistrates:—

District.	Number of Honorary Magistrates.	Number of times asked to attend.	Number of times actually attended.	NUMBER OF TIMES ABSENT—		
				With leave or notice.	Without leave or notice.	Total.
1	2	3	4	5	6	7
Cuttack ...	32	832	646	120	66	186
Puri ...	16	1,234	830	26	378	404
Balasore ...	21	525	421	63	41	104

It would appear from the above statement that the attendance was on the whole regular, and the Officiating Lieutenant-Governor notes with satisfaction "that the Commissioner thinks Honorary Magistrates gave material help in the administration of criminal justice, and are entitled to the thanks of Government, the number of cases disposed of by them being nearly one-third of those disposed of by Stipendiary Magistrates." The percentage of decisions of Honorary Magistrates confirmed on appeal was, however, less, and the ratio of witnesses detained over two days more than in the previous year.

10. The following table gives the number of registrations:—

DISTRICT.			Class of Registration office.	Number of offices.	Number of documents registered.	Average per office.
1			2	3	4	5
Cuttack	...	...	Special	1	2,827	2,827
			Rural	3	6,326	2,108
Puri	...	...	Special	1	2,580	2,580
			Rural	2	4,637	2,318
Balasore	...	...	Special	1	1,730	1,730
			Rural	2	3,454	1,727
Total	...	...	Special	3	7,137	2,379
			Rural	7	14,417	2,059

11. The following statement shows the demands, collections, and balances of land revenue, road cess, and zamindari dâk cess:—

Land Revenue and Cesses.



DISTRICT.	Class of demand.	Class of estates.	Number of estates.	DEMAND.		COLLECTIONS OF 1892-93.		BALANCE OF 1ST APRIL 1893.		REMARKS.
				Current.	Arrear.	Current.	Arrear.	Current.	Arrear.	
1	2	3	4	5	6	7	8	9	10	11
Cuttack	Land revenue	I ... ..	23	Rs. 1,01,488	.....	Rs. 1,01,406	.....	Rs. 1,736	.....	Rs. 24 remitted. " 444 do.
		II ... ..	4,137	7,16,305	128	7,14,551	114	1,780	16	
		III ... ..	9	39,595	2,190	37,291	1,869	1,907	266	
	Total Land Revenue...		.....	8,57,368	2,318	8,53,898	2,003	3,387	266	
	Road cess	Estates	8,971	1,29,958	12,780	1,14,809	8,207	15,089	2,742	Rs. 1,700 remitted.
Zamindari dāk	Rent-free tenures	81								
	Estates	1,581	7,264	889	6,851	301	413	28		
		Total	.....	9,94,588	16,476	9,76,028	10,631	19,186	4,058	
Puri	Land revenue	I ... ..	8	10,255	.....	10,255	.....	.....	.....	Rs. 8,627 remitted.
		II ... ..	478	2,29,038	113	2,29,038	113	2	.....	
		III ... ..	7	8,46,157	17,893	5,17,563	16,914	20,023	914	
	Total Land Revenue...		.....	5,86,350	17,006	5,57,764	17,027	20,024	914	
	Road cess	Estates	5,501	69,517	2,881	66,230	2,623	2,344	251	Rs. 10 remitted. * Includes Rs. 405 previously paid in advance.
Zamindari dāk	Rent-free tenures	10								
	Estates	364	4,714	104	4,630	104	24	.....		
		Total	.....	6,69,511	20,981	6,28,674	19,754	22,332	1,166	
Balasore	Land revenue	I ... ..	148	35,003	.....	35,003	.....	.....	.....	Rs. 28 remitted.
		II ... ..	1,313	3,53,610	287	3,50,507	287	3,103	.....	
		III ... ..	29	25,754	1,131	24,620	1,064	1,133	10	
	Total Land Revenue...		.....	4,14,367	1,414	4,10,130	1,381	4,236	10	
	Road cess	Estates	12,092	72,601	7,206	68,350†	6,649	4,330	540	† Includes Rs. 6,313 previously paid in advance. Rupees 17 remitted.
Zamindari dāk	Rent-free tenures									
	Estates	818	5,064	252	4,990	252	605	.....		
		Total	.....	4,92,691	8,876	4,83,439	8,243	9,231	550	
		GRAND TOTAL	.....	21,46,860	46,333	20,87,161	38,067	50,702	5,753	
		Grand Total for 1891-92	.....	21,78,846	1,92,721	21,23,173	72,470	54,405	1,19,827	Total remission, Rs. 10,910. Total remission, Rs. 7,256.

The collections in all classes of estates were well above the prescribed standards, being 100 per cent. on the demand in permanently-settled estates, 99·6 per cent. in temporarily-settled estates, and 92·2 per cent. in estates managed by Government direct. The collections in Banki, which was recently resettled, amounted to 99·6 of the new settlement demand. The total demand, current and arrear, under all heads on account of land revenue, road-cess, and zamindari dāk cess, amounted to Rs. 21,93,193. The collections amounted to Rs. 21,25,828, a result which the Officiating Lieutenant-Governor considers very satisfactory and creditable to the local officers.

12. The survey and settlement operations in progress throughout the Division will be separately reviewed in connection with the Annual Reports of the Directors of Survey and of Land Records.

#### Issue of Certificates.

13. The following statement shows the working of the Certificate Department:—

DISTRICT.	Department.	Number pending at beginning of year.	Number issued during the year.	Total for disposal.	Amount of certificates.	Number disposed of during year.	Amount realized.	Number pending at close of year.
1	2	3	4	5	6	7	8	9
Cuttack	Khas Mahal	44	112	156	Rs. 2,279	132	Rs. 1,014	34
	Court of Wards	275	354	629	63,061	368	3,460	271
	Road cess	1,991	3,889	5,180	30,265	3,706	10,040	1,474
	Water-rate	4,502	6,964	11,466	75,726	10,803	67,034	863
	Miscellaneous	72	369	441	5,900	391	2,912	110
	Total	6,184	11,628	17,812	1,78,251	15,130	94,660	2,762
	Total for 1891-92	9,121	11,731	20,852	1,61,825	14,788	59,690	6,064
Puri	Khas Mahal	267	2,116	2,383	40,810	1,827	33,971	556
	Road cess	286	1,651	1,937	33,347	1,085	32,250	282
	Court of Wards	78	214	292	5,142	104	3,274	60
	Miscellaneous	78	381	459	55,034	336	2,176	130
	Total	628	4,362	4,990	1,43,383	4,002	72,471	988
	Total for 1891-92	1,109	3,873	4,982	1,34,197	6,236	97,794	927
Balasore	Khas Mahal	434	1,917	2,351	21,264	2,198	23,340	148
	Water-rate	221	1,027	1,248	18,062	1,132	12,036	116
	Court of Wards	78	291	369	3,843	184	807	181
	Zamindari dāk	143	334	477	937	312	813	163
	Miscellaneous	65	138	203	3,551	109	8,446	94
	Total	931	3,707	4,638	47,707	3,930	30,432	699
	Total for 1891-92	1,803	3,740	5,543	44,417	4,502	33,588	931
	GRAND TOTAL	7,743	19,767	27,510	3,09,361	23,071	2,00,573	4,439
	Grand Total for 1891-92	12,139	19,344	31,477	3,40,430	25,596	1,91,052	7,623

It is noticed with satisfaction that though the number of institutions has slightly increased, there was an improvement in the promptitude with which cases were disposed of, and that the number pending at the end of the year was 3,183 less than at the close of the preceding year.

14. The following statement exhibits the consumption and income under  
Excise. the heads of country spirits, ganja and opium :—

Districts.	COUNTRY SPIRITS.				GANJA AND BIANG.				OPIMUM.			
	Number of shops.	License fees.	Gross gallons.	Total receipts.	Number of shops.	License fees.	Gross maunds.	Total receipts.	Number of shops.	License fees.	Gross maunds.	Total receipts.
Cuttack ... ..	33	Rs. 13,385	6,116	Rs. 23,401	98	Rs. 22,885	118	Rs. 45,611	82	Rs. 27,061	126	Rs. 1,52,684
Puri ... ..	18	2,988	2,473	6,29	43	12,229	69	35,600	14	11,463	45	55,218
Balasore ... ..	13	2,909	2,004	6,000	4	5,027	33	12,533	73	24,714	149	1,72,298

Revenue from all sources.				Rate per head of population.	
Cuttack .. ..	Rs.	A.	P.		
Puri .. ..	2,61,917	2	2		
Balasore .. ..	1,01,363	1	8		
	1,97,099	3	3		
Total .. ..	5,01,977	3	3		
Total for 1891-92	5,51,459	3	3		

There was an increase in the total excise revenue of the Division from Rs. 5,51,459 in 1891-92 to Rs. 5,60,977 in the year under review. The Collector of Cuttack thinks that the ganja revenue is much affected by the introduction of Gurjat ganja by consumers without licenses. This is a matter which should be separately considered in the Financial Department.

Stamp revenue and income-tax. 15. There was a net decrease of Rs. 2,413 in stamp revenue and an increase of Rs. 2,736 in the revenue from income-tax.

16. The number of payments of revenue by money-orders increased from 10,933 to 12,977, and the amount remitted from Rs. 1,11,121 to Rs 1,35,977. The Collector of Cuttack remarks :—

“The system has one great drawback as compared with direct payment, viz., that the form of the money-order coupon or chalan is a composite one, in which land revenue and cesses remitted are required to be entered in one and the same coupon. It frequently happens that the ignorant mufassal remitters confound the headings, and enter land revenue against road and public works cesses, or dāk cess against road and public works cesses, and so on, which causes them no little inconvenience and the office much trouble in making subsequent adjustments. It is also not infrequently the case that on account of such mistakes estates are brought into the sale list. Such confusion is not possible in the case of direct payments, as a special chalan form is provided for each, i.e. for land revenue, road and public works cesses, and dāk cess, and credit is made in the presence of the payer himself, who can, if need be, be consulted. If issuing sub-postmasters would give more assistance to remitters in making correct entries in coupons, many of their mistakes might be avoided. Improvement in the form of coupon has been suggested by Mr. Macpherson in his Tauzi Report.”

The matter will be referred to the Board of Revenue for consideration.  
17. The number of pupils at State aided schools, the cost and percentage of boys at school to the total number of a school-going age, are shown in the following statement :—  
Education.

DISTRICT.	Class of schools.	Number of schools.	Number of pupils on rolls.	Cost.						Cost per head of pupils.	Population.	Number of boys of school-going age.	Percentage of boys at school to boys of school-going age according to Director of Public Instruction's Report for 1898-99.
				Provincial.	District Board.	Municipality.	Fees.	Other.	Total.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Cutback	High	5	913	Rs. 5,103	Rs. ....	Rs. 675	Rs. 13,011	Rs. 1,749	Rs. 21,188	Rs. A. P. 23 2 5	1,337,671	141,063	.....
	Middle	35	1,831	3,215	5,047	145	4,081	6,863	10,556	10 10 8			
	Primary	2,997	45,391	1,093	14,879	1,333	7,073	19,384	1,13,942	2 8 7			
	Special	12	189	15,146	.....	.....	1,204	144	16,494	87 4 3			
	Total	3,049	48,130	21,557	19,926	2,374	15,532	28,140	1,70,729	8 8 8			
Total for 1891-92		4,013	62,024	25,591	23,456	2,111	1,20,845	20,353	1,98,356	3 8 2	.....	.....	43.3
Puri	High	1	131	2,383	.....	.....	2,230	8	4,571	34 14 3	944,998	71,170	.....
	Middle	21	786	280	4,530	.....	102	2,157	7,729	10 0 4			
	Primary	1,091	15,613	2,782	6,102	787	37,344	6,320	61,875	3 5 0			
	Special	8	35	1,312	.....	.....	.....	.....	1,392	30 13 5			
	Total	1,121	16,465	6,767	10,632	787	40,366	7,485	65,717	3 15 6	.....	.....	27.8
Total for 1891-92		1,146	16,461	6,690	10,214	790	39,104	6,881	63,895	4 1 3	.....	.....	27.2
Balasore	High	3	330	2,728	.....	.....	4,885	1,081	8,604	27 8 11	954,625	72,245	.....
	Middle	28	1,158	1,808	4,366	169	1,898	7,561	15,793	10 13 2			
	Primary	2,019	31,320	1,574	12,395	321	65,587	16,156	89,834	2 14 6			
	Special	9	115	1,762	608	.....	13	895	3,269	28 0 0			
	Total	2,069	33,223	7,866	17,329	471	70,183	18,028	1,27,980	3 8 6	.....	.....	46.3
Total for 1891-92		2,022	36,019	7,886	17,105	449	72,603	62,181	1,09,534	4 7 3	.....	.....	46.1
Total of Division.	High	9	1,374	10,164	.....	075	24,721	3,238	34,833	25 5 3	3,877,294	254,507	.....
	Middle	84	4,077	5,303	13,943	496	1,891	10,681	48,211	10 9 10			
	Primary	6,140	95,034	5,453	33,476	2,461	1,89,964	40,854	2,60,341	3 12 8			
	Special	29	339	18,270	608	.....	1,217	98	21,155	62 6 5			
	Total	6,262	100,824	39,210	47,047	3,635	1,14,191	67,653	3,64,586	5 9 9	.....	.....	35.9
Total for 1891-92		7,181	113,704	40,167	50,775	3,266	1,22,532	65,715	4,22,775	3 11 5	.....	.....	40.5

The percentage of boys at school on the total number of a school-going age in the Division as a whole is, according to these figures, 35.9; in Balasore district it is as high as 48, while in Puri it is only 27.8. Remembering that the wages of an agricultural labourer is said in the latter district to be double that prevailing in the former, that the incidence of income-tax is nearly the same, and that there is no great difference between the two districts in point of general material prosperity, it is difficult to account for the great disparity in educational progress otherwise than on the theory that it is due to differences in the degree of interest taken in the subject by the local Educational and District Officers. Looking to the Division as a whole, it appears that, in education as in material prosperity, it takes an intermediate place between Eastern Bengal on the one side and Bihar on the other, being neither so advanced as the former nor so backward as the latter. The total expenditure on education in this Division, with a population of 3,877,294 persons, Rs. 3,64,586, is more than half that in Patna Division, with a population more than four times as great.

There was a falling off of 12,880 in the number of pupils, due to the agricultural depression caused by the cyclone-wave and the prevalence of fever and cholera of an epidemic type. As noticed in other Divisions, the proportion of Muhammadans at school relatively to the total Muhammadan population was higher than that of Hindus. There were 125 special girls' schools attended by 2,933 pupils, the total number of girls at school, inclusive of those at mixed schools, being 6,099, or about one in every fifty of a school-going age.

18. The number of dispensaries, the amounts contributed to their support,

Dispensaries and Hospitals.

and the number of patients attending them, are shown below:—

DISTRICT.	Number of dispensaries.	INCOME FROM—					DAILY AVERAGE PATIENTS—		Ratio per cent. of out-door patients to total population.
		Government.	District Board.	Municipality.	Subscriptions.	Total.	In-patients.	Out-patients.	
1	2	3	4	5	6	7	8	9	10
Cutback	8	Rs. 2,601	Rs. 1,024	Rs. 2,736	Rs. 14,031	Rs. 21,093	50.0	206.7	2
Puri	5	879	681	4,089	.....	5,230*	19.9	88.0	1.5
Balasore	6	351	906	728	6,012	7,084	21.32	150.13	3

\* Includes contributions from the Lodging house Fund.

The number of dispensaries, the contributions to them, and the number of patients receiving medical aid, are all remarkably small, a thing which is the more to be regretted in that there is annually a great influx into the Division of pilgrims who require medical treatment. In the whole of the Puri district, through which many thousands of pilgrims pass every year, there are only five dispensaries, costing only Rs. 8,230 per annum, all of which is contributed by Municipal and District Boards and Government, while private individuals do not contribute anything whatever.

19. The Commissioner remarks that he fears it is but too true that Local Self-Government has not taken root in Orissa. With some notable exceptions, the work is done by the executive officers of the Boards or Committees, but the faults of the local bodies are more those of omission than commission.

Mr. Cornish writes that the general working of the Board of his district has been most satisfactory; but in the Balasore Municipality the factions that disgrace the town led to public scandals in connection with municipal government during the year under review. While finding fault, however, with the displays of reckless party spirit made by either party towards their opponents, he adds that the wants of the town as regards roads, drains and conservancy were carefully attended to.

Public feeling.

20. With regard to the state of public feeling, the Commissioner makes the following remarks:—

“It may be said that the uneducated classes have no opinion on public questions unless such questions affect them personally. With the educated classes it is different. They take an interest in much the same questions that interest similar classes in Bengal and elsewhere; but, so far as I have been able to ascertain, their attitude is one of singular moderation. It is characterised by a constant faith in the justice and benevolence of the Government, and this they share with the humbler members of society.”

Mr. Cooke thinks that the Uriyas not only live better, but that they spend more on religious and social ceremonies than the natives of Bengal, that the country has made rapid strides in prosperity in recent years, and hopes that with the opening up of communications and the introduction of new cereals for which the soil is suited, the Division has a bright future before it.

The settlement operations are progressing without any serious disturbance of the ordinary relations between landlord and tenant.

21. The conduct of zamindars in Balasore and Cuttack is reported on the whole to be good, but in Puri the relations of landlords with their raiyats are unsatisfactory, the estates of the Raja of Puri are said to be mismanaged, the Raja of Parikud has had litigation with his raiyats, while the Mahunts of Dakhinpara math and Utterpara math are involved in debt.

22. The Officiating Lieutenant-Governor thanks Mr. Cooke for his careful report and for the attention both Mr. Toynbee and Mr. Cooke have paid to the administration of the Division.

23. The remarks made on the character of officers will be communicated to the Appointment Department.

By order of the Lieutenant-Governor of Bengal,

M. FINUCANE,

*Offg. Secretary to the Government of Bengal.*

**RESOLUTION ON THE REPORT ON THE ADMINISTRATION OF THE  
EXCISE DEPARTMENT FOR THE YEAR 1892-93.**

FINANCIAL DEPARTMENT—SEPARATE REVENUE—No. 627T.—F.

*Darjeeling, the 31st October 1893.*

**RESOLUTION.**

**READ—**

The Report of the Commissioner of Excise for the year 1892-93, with the observations of the Board of Revenue thereon.

*Administrative changes.*—The appointment of Excise Commissioner in Bengal had up to the year under report been only a tentative measure, but its permanent retention was sanctioned by the Secretary of State in his despatch dated the 15th February 1892. Under the revised arrangements the Excise Commissioner, the pay of whose appointment has been reduced, is to work under the general supervision of the Board of Revenue; but at the same time, as it has been thought inadvisable altogether to dissociate Divisional Commissioners from the administration of the excise in their Divisions, orders have been given that annual and other periodical reports of importance should be submitted through them, and that they should also be consulted at the discretion of the Board on other questions of moment.

2. *The Excise Commissioner.*—Mr. Westmacott was in charge of the office of Excise Commissioner at the commencement of the year under report, but on the 8th April 1892 he went on furlough and Mr. Samuells acted in his place. On the 29th August Mr. Westmacott rejoined his appointment and held it until the 3rd March 1893, when he made over charge to Mr. Krishna Govinda Gupta. These three officers spent altogether 116 days on tour, during which they visited 35 out of the 46 districts in the province, the districts of the Patna Division, and also Bhagalpur, Monghyr and Khulna, being twice visited. No explanation is given of the smallness of the total, though it is short of the prescribed minimum by 34 days. The apparent want of system in the tours is said to be due to the change of officers, and also to the fact that the western districts, which were twice visited, are among the most important in the province from an excise point of view.

3. *Subordinate staff.*—As in the previous year, Special Excise Deputy Collectors were employed in eighteen districts, besides two as Inspectors of Excise and one as Personal Assistant to the Excise Commissioner: thus the full number sanctioned by the Secretary of State was entertained. In last year's Resolution the Excise Commissioner was requested to state more fully in future how these Special Deputy Collectors were employed, but these orders have not been carried out: from paragraph 179 of his report, however, it appears that in eleven districts these officers were out on tour for periods varying from 120 to 260 days (the highest limit being reached by Babu Prokash Chunder Roy of Patna), and in the remaining seven districts the tours occupied from 61 to 118 days. The Lieutenant-Governor observes with satisfaction that out of the twenty-two districts in which Deputy Collectors in the regular line were engaged on excise work, in only four districts was the minimum of 60 days' touring not reached or exceeded.

4. The Excise Commissioner laments the fact that owing to the comparative unpopularity of the department, the special officers appointed to it are wont to leave it just at the time when, having mastered the details of their work, they have begun to be useful, and urges the necessity of including the higher paid appointments also in the cadre of a close Excise Department.

But, as the Board point out, except in the very heaviest districts, the administration of excise, even when combined with the supervision of income-tax work, does not occupy the full time of one officer, and therefore if Mr. Gupta's scheme were adopted, it would be necessary to appoint one officer to have charge of excise work in several districts—an arrangement which would involve confusion of jurisdiction and would tend to take out of the hands of Collectors the supervision of excise in their districts—a result highly to be deprecated. Some of the difficulties pointed out by the Excise Commissioner would no doubt be mitigated if the special officers could be relieved as far as possible of magisterial duties, and on this subject the Board promise a further reference. The whole question has the continual attention of the Lieutenant-Governor, who is well aware of the merits and demerits of the present system, but as at present advised considers that the former outweigh the latter.

5. At the commencement of the year under report there were fifteen special Sub-Deputy Collectors in charge of distilleries, but owing to revision of establishment and to the abolition, since the close of the year, of the Hooghly and Manicktolla distilleries, the number has now been reduced to ten. The Special Excise Sub-Inspectors employed on the Railway succeeded in detecting some cases of opium-smuggling, but the Board are not satisfied with their work on the whole, and are of opinion that they should be placed under the orders of the Inspector-General of Police. A separate report should be submitted on the subject. From the 1st July 1892 the grade system was introduced into the Excise Ministerial establishment, which was made Provincial and divided into three branches, viz., Executive officers, Distillery officials, and Office establishment. The scheme will not come completely into force at once, but is to be carried into effect as vacancies and promotions take place.

6. *Financial results.*—In the following statement are set forth the revenue and expenditure of the Excise Department during the last five years:—

PERIOD.			Revenue.	Charges.	Net revenue.	Percentage of charges.
			Rs.	Rs.	Rs.	
1888-89	...	...	1,08,88,973	4,32,765*	1,04,56,208	3.9
1888-90	...	...	1,04,73,413	5,31,382*	99,42,049	5.07
1890-91	...	...	1,04,60,932	6,47,112*	98,13,820	6.1
1891-92	...	...	1,11,29,813	6,67,792†	1,04,62,021	6
1892-93	...	...	1,15,92,665	6,60,242	1,09,32,423	5.7
Difference of the past two years			+4,62,852	—7,550	+4,70,402	—3

\* These figures will not agree with those in the previous year's report, as they were incorrectly given there through a clerical mistake.

† Revised figures.

The final estimates for the year were as follows:—Receipts Rs. 1,09,50,000 and Disbursements Rs. 6,82,000, giving an estimated net revenue of Rs. 1,02,68,000, but the actual net revenue for the year exceeded the final estimate by Rs. 6,64,423, and was larger than in any of the four preceding years. This result cannot but be regarded as satisfactory, for as far as can be judged no stimulus has been given to consumption, while in the case of distillery liquor, country rum, ganja and bhang, the increase in revenue has been obtained concurrently with a decrease in consumption. The charges were Rs. 7,550 less than those for 1891-92. The main decrease occurred in the expenditure on rewards and on petty construction and repairs, while on account of travelling allowance to officers there was a further increase of Rs. 8,570 on last year's figures.

7. In accordance with the orders of Government communicated to the Board in May last, a statement has been given in the report under review, comparing the actual net receipts in each Division in 1891-92, after excluding advance collections: the figures are given below. The Presidency Division takes the first place, as its figures include those of Calcutta, and the Chittagong Division is at the other end of the list. The greatest actual advance is shown by the

Patna Division, followed by that of Chota Nagpur; the decrease in the Bhagalpur and Burdwan Divisions are due to scarcity and bad crops:—

DIVISION.	1891-92.	1892-93.	Difference + or —
	Rs.	Rs.	Rs.
Burdwan ...	11,23,464	11,57,563	+ 34,099
Presidency ...	31,09,898	32,14,635	+ 1,04,737
Rajshahi ...	8,85,663	8,81,122	— 4,541
Dacca ...	8,16,348	8,12,196	— 4,152
Chittagong ...	2,55,767	2,68,588	+ 12,821
Patna ...	22,43,901	24,27,767	+ 1,83,866
Bhagalpur ...	12,47,985	12,09,638	— 38,347
Orissa ...	5,47,065	5,56,069	+ 9,004
Chota Nagpur ...	7,42,917	8,37,861	+ 94,944
Total ...	1,09,73,008	1,13,65,439	+ 3,92,431

8. *Revenue classified*—The fluctuations in the revenue derived from the various exciseable articles are compared in the following statement:—

ARTICLES OF EXCISE.	REVENUE.					1892-93 COMPARED WITH 1891-92.	
	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Country spirits ...	50,90,316	47,07,132	45,28,202	48,14,643	50,23,417	2,08,774	..
Rum	72,851	1,00,050	98,853	2,29,072	4,19,117	1,80,743	..
Imported liquors	2,21,460	2,14,090	2,61,095	2,23,644	2,07,092	..	16,552
Beer	..	18	71	174	193	19	..
Tari	7,88,901	8,20,314	8,45,588	9,57,405	9,49,098	..	7,707
Pachwai	2,15,191	2,32,682	2,72,299	3,04,169	3,34,057	30,389	..
Charas	2,765	3,535	6,504	7,568	9,097	1,599	..
Siddhi, sabzi or bhank	42,671	43,141	44,847	48,484	53,558	5,094	..
Mazum	2,092	2,007	1,910	1,962	1,784	22	..
Madak	55,753	82,825	81,467	86,413	79,659	..	6,864
Chandu	36,254	3,316	30,467	35,032	31,043	..	4,300
Spirits used for arts	110	143	465	772	1,066	294	..
Ganja	23,18,353	22,59,690	23,11,713	23,92,504	21,90,000	97,498	..
Opium	20,08,134	19,59,491	19,05,812	21,18,825	20,85,116	..	33,709
Miscellaneous	4,131	6,430	6,471	7,913	10,413	2,440	..
Total	1,08,88,973	1,04,73,431	1,04,00,932	1,11,20,113	1,18,92,665	5,31,804	68,952
					Net increase	4,62,852	

It will be seen that there has been an increase under every head excepting imported liquor, tari, madak, chandu, and opium, the largest increase occurring under country spirits, followed by rum and ganja. The fluctuations are discussed in detail under each separate head. The total increase in net revenue over that of the previous year amounted to Rs. 4,62,852, and the incidence of excise taxation on the population was 2 annas 7 pies per head as compared with 2 annas 6 pies in the previous year. In Bombay the incidence of taxation amounted in 1891-92 to 8 annas and 1 pie and in Madras to 5 annas 5 pic. The demand for the year was well realized, for out of a gross demand of Rs. 1,16,96,017, Rs. 1,15,92,665, or 99.1 per cent., were realized during the year, Rs. 9,856 were remitted as irrecoverable, and the balance at the close of the year amounted to Rs. 93,496, or only .7 per cent. of the whole.

9. *Current settlements*.—The settlements for the current year are again satisfactory, as they promise to yield a net increase of Rs. 2,30,352 over those of 1892-93, all the Divisions contributing to the result, except Dacca, Chittagong, and Patna.

10. *Country spirit.*—No source of excise revenue is more important than this. As the term implies, country spirit constitutes the ordinary stimulant of the people prepared for the most part by native methods; its preparation employs a considerable section of the population, it demands, whether in the shape of distillery liquor or under the outstill system, the chief share of the attention of the excise authorities, and it brings in more than two-fifths of the excise revenue of the province. To this branch of excise administration more than any other are directed the efforts of Government to decrease consumption and enhance revenue. The following table shows the increase in the revenue from country spirits during the last two years under the two systems of outstills and central distilleries:—

## A.

*Outstill Revenue.*

	SHOPS.		LICENSE FEES.	
	1891-92.	1892-93.	1891-92.	1892-93.
			Rs.	Rs.
Burdwan ...	43	42	23,342	26,435
Rajshahi ...	233	234	3,67,211	3,67,693
Dacca ...	.....	.....	1	.....
Chittagong ...	62	63	34,084	36,979
Patna ...	572	699	10,26,069	11,21,233
Bhagalpur ...	305	329	3,94,798	3,90,804
Orissa ...	.....	.....	.....	212
Chota Nagpur ...	555	564	6,04,640	6,73,998
Total ...	1,770	1,931	24,50,145	26,20,354

## B.

*Distillery Revenue.*

DIVISION.	Shops.		License fees.		Duty.		Distillery fees.		Total.	
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Burdwan ...	318	318	1,13,420	1,17,253	1,96,370	1,45,129	5,101	4,355	3,14,891	3,09,737
Presidency ...	355	368	4,18,698	4,15,120	9,63,892	9,80,651	15,558	15,966	13,98,247	14,41,716
Dacca ...	209	213	77,054	97,601	1,24,927	1,18,115	8,190	2,982	2,05,171	2,18,698
Patna ...	76	75	73,847	65,005	1,66,539	1,69,731	24,156	26,157	2,61,542	2,61,794
Bhagalpur ...	125	124	48,492	49,099	72,580	63,000	5,549	6,304	1,20,621	1,20,212
Orissa ...	51	66	18,366	19,673	16,900	15,814	843	908	36,700	36,295
Chota Nagpur ...	15	11	8,860	7,400	8,855	0,000	513	422	18,228	17,611
Total ...	1,149	1,175	7,60,967	8,02,651	15,50,123	15,43,049	55,008	57,064	23,64,409	24,03,063

11. The advance in the revenue from country spirits which occurred last year has been maintained during the year under report, the total increase from both sources being Rs. 2,08,774. The outstill revenue showed an increase of Rs. 1,70,209, the number of shops being 161 greater than in the previous year. The increase in the number of shops indicates an abandonment of the policy of fixing beforehand the upset prices to be demanded for them, and allowing no deviation therefrom. Experience has, it is stated, shown that an inelastic system of this kind is not conducive to any substantial decrease in consumption, while it is extremely detrimental to Government, since the only persons who benefit by shops remaining unlet are the neighbouring licensees, who obtain thereby an altogether unintended and unearned profit. The Officiating Lieutenant-Governor is not quite convinced of this, and views with suspicion an increase in the number of shops, unless justified by exceptional reasons of special and not of general application. No figures are supplied by the Board



to show the amount of country liquor issued from outstills, and it is therefore impossible to compare the amounts consumed year by year, but in the circumstances stated above, it is claimed that the increase of shops does not necessarily mean a corresponding increase of consumption. But the onus of proving this lay on the excise authorities, and it has not been discharged. It is satisfactory to observe that the revenue from distilleries showed an increase of Rs. 38,565, or 1·6 per cent., while the issues of distillery liquor fell from 814,432 to 736,107 gross gallons, or by 9·6 per cent. It is clear that to some extent a stronger liquor is being distilled, which is, however, it is believed, diluted before sale, and the figures quoted fully justify the recent action of Government in altering the manner of levying the distillery fee.

12. In last year's Resolution the following points were specially noted and discussed:—

- (1) The restriction of still and vat capacities.
- (2) The issue of liquor at fixed strength.
- (3) The fixing of minimum retail prices.
- (4) The rate of distillery fees.
- (5) The desirability of distilling weak liquor at Government distilleries.

The first point has been disposed of by an order of Government doing away with all restrictions on vat capacity from the beginning of the current year, and allowing Collectors, with the sanction of the Excise Commissioner, to permit the use of stills of any size. There is abundant evidence to show that these restrictions were frequently evaded, and that in comparison with the trouble and harassment which they involved, the advantages they were believed to secure were quite insignificant. The expedient of fixing a minimum retail price below which distillery liquor should not be sold at the licensed shops was condemned in the Resolution last year, and has now been given up; but as regards outstills, it is reported that the system has not yet been altogether abandoned. The Lieutenant-Governor is unable to understand in what manner the Excise Commissioner expects effectually to carry out such an order in the case of outstills, and a report should be submitted on the point. In regard to the distillery fee, the question was discussed during the year whether a fee on stills, or a fee on each gross gallon of liquor distilled, or a fee on each gallon of London-proof liquor, was the most advisable. After the close of the year the Board suggested the total abolition of the fee, but in the event of that course not being adopted, they recommended the levy of a higher fee on each gallon of London-proof liquor. The Lieutenant-Governor accepted the latter suggestion, and approved of the levy of a fee of  $2\frac{1}{2}$  annas calculated on each gallon of London-proof spirits; at the same time, in view of the inducements to illicit manufacture arising from the high price of distillery liquor in certain specified districts, orders were passed that in those districts the present system should be maintained and a fee of 1 anna per gross gallon be levied as now. The second and the last of the questions raised above were dealt with by the issue of instructions that the distillation of strong liquor was not to be encouraged, but that the abkars were to be allowed to distil liquor to suit the taste of their customers, and District Officers have accordingly been asked by the Excise Commissioner to report what reduced strengths they would propose with a view to carrying out these orders. The Excise Commissioner does not press distillation or the issue of liquor at fixed strengths, because he says such an order would be inoperative unless supplemented by others forbidding the dilution of liquor before sale. If the only benefit anticipated from such a measure be that it will facilitate the detection of illicit liquor offered for sale under cover of a license, no doubt the game would be hardly worth the candle; but Sir Antony MacDonnell has in other Provinces found the system tend to smooth distillery administration, and neither hurtful to the people nor to the Government revenue.

13. The revenue derived from country spirits in the Burdwan Division decreased during the year from Rs. 3,38,233 to Rs. 3,33,172. The decline occurred in the districts of Burdwan, Midnapore and Hooghly, and is ascribed to the increase in the price of liquor, to the enhancement of duty, to the high rate of license fees, and to the failure of crops. The following statement compares the revenue in this Division from country liquor, tari and pachwai in the years

1887-88, when the revenue from country liquor was at its highest, and in the year under report:—

DISTRICT.	1887-88.				1898-93.			
	REVENUE FROM—			Total.	REVENUE FROM—			Total.
	Country spirits.	Tari.	Pachwai.		Country spirit.	Tari.	Pachwai.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Burdwan ...	1,51,728	4,379	58,419	2,14,526	78,045	7,745	1,04,360	1,90,150
Bankura ...	53,020	67	10,121	63,208	23,032	73	15,139	38,244
Birbhum ...	20,427	1,154	62,110	83,691	15,873	1,618	95,323	1,12,814
Midnapore ...	75,000	1,105	2,838	78,943	59,809	4,817	5,706	70,332
Hooghly ...	1,51,303	22,134	1,366	1,74,803	1,23,268	30,403	2,171	1,55,842
Howrah ...	20,686	10,094	...	49,570	33,145	27,967	...	61,112
Total ...	4,81,670	48,523	1,34,854	6,65,347	3,33,172	72,716	2,22,609	6,28,587

	1887-88.	1898-93.	Increase.	Decrease
	Rs.	Rs.	Rs.	Rs.
Country spirits	4,81,670	3,33,172	...	1,48,498
Tari ...	48,523	72,716	23,803	...
Pachwai ...	1,34,854	2,22,609	87,845	...
Total	6,65,347	6,28,587	...	36,760

The Excise Commissioner says that the falling off in the revenue from country spirit is no doubt due to the substitution of distillery shops for outstills during the period under consideration, the high-priced distillery liquor being beyond the means of the average consumer. As a consequence of the high prices, illicit distillation appears to have been prevalent, and it was found necessary to reintroduce outstills in certain wild tracts of Bankura and Midnapore. The statement above shows that as the revenue from spirits has declined, so has that from tari and pachwai risen; so that the ultimate loss to Government has only amounted to Rs. 36,760.

14. There was an increase of revenue in all the districts of the Presidency Division except Murshidabad. The advance was greatest in Calcutta and the 24-Parganas, and in both instances it is ascribed partially to the equalization of the duties on rum and country spirits, and so far the increase caused no actual profit to Government. Few cases of smuggling were detected, but the Collector of Nadia thinks that outstill liquor is brought into the district from Pabna and Rajshahi, and both smuggling and illicit distillation are suspected in Murshidabad, though no cases were detected. As usual, the districts of Purnea and Malda, belonging to the Bhagalpur Division, are considered along with those of the Rajshahi Division, to which geographically and ethnologically they pertain. In this tract there was a decrease in the number of outstills from 375 to 371, and the revenue declined by Rs. 6,982. In Darjeeling the falling off is said to be due to the abolition of two outstills: pachwai shops were opened in their stead, and the increase of revenue from pachwai more than compensated for the loss on country spirits. In Dacca the distillery system continued to be in force throughout the Division: the number of shops increased from 209 to 213, and the revenue from Rs. 2,05,172 to Rs. 2,18,698. All the districts of the Division show an increase, except Mymensingh, where the decrease is ascribed to the high price of food and to consumption of country rum and imported liquor in place of country spirits. It is said that rum and imported liquor are extensively sold in the Dacca district under the combined licenses which it has now been decided to separate. In the Chittagong Division the outstill system holds the field: the revenue was Rs. 2,895 greater than in the previous year: the demand for liquor throughout the Division is very small.

15. With the seven districts of the Patna Division may be classed the three districts of Monghyr, Bhagalpur and Hazaribagh. In this tract the dual system continued in force, under which there is one central distillery in each district for the supply of the town area, while the rest of the district is supplied from outstills. The revenue from outstills rose from Rs. 14,05,808 in 1891-92 to Rs. 15,12,941 in the year under report, and the number of outstills increased by 158. As explained in paragraph 10 above, the increase under the latter head is due to modifications being allowed in the upset price, and does not necessarily imply a larger consumption. The increase in revenue is

shared by all districts except Shahabad and Darbhanga. The revenue from distillery liquor, on the other hand, decreased by Rs. 10,311. The decline is generally ascribed to the high price of food and to the reduction in the duty on distillery liquor. The former cause will not bear a moment's investigation in view of the concomitant increase in the revenue derived from outstills, but the latter no doubt contributed somewhat to the decrease.

16. The Excise Commissioner gives the following statement to show that the system of central distilleries has not been a financial success in Bihar:—

	1887-88.	1892-93.	Percentage of decrease.
	Rs.	Rs.	
Outstill revenue	15,09,399	13,65,120	9.5
Distillery revenue	4,99,177	3,20,395	35.8
	<u>20,08,576</u>	<u>16,85,515</u>	

From these figures it appears that the revenue from outstills has nearly recovered the decline that occurred in 1890-91, but not so that from distilleries. The Excise Commissioner urges that distillery liquor can never successfully compete with that from outstills until some means are devised for taxing them equally (and hitherto all attempts to do this have failed), and yet distillery areas are surrounded on all sides by outstills, and outstill liquor cannot be entirely prevented from competing with that from the distilleries. Tari also joins in the struggle, and either it has become so popular, or the revenue has been so well collected during the last few years, that the income derived from it goes some considerable way to making up for the loss that has occurred since 1890-91 in the revenue from country liquor. A comparison of the receipts in the year under report and in 1887-88, the year of the highest revenue, will illustrate this:—

	1887-88.	1892-93.	Percentage of difference.
	Rs.	Rs.	
Country liquor	20,08,576	16,85,515	—16
Tari	4,65,397	6,26,345	+34.5
Total	<u>24,73,973</u>	<u>23,11,860</u>	

The Lieutenant-Governor is not satisfied that the causes of the alleged high price of distillery liquor have been thoroughly explored, and he desires to suspend his judgment till the report on the whole question promised by the Board has been received and considered.

17. The difficulty of the competition of the distilleries and outstills was encountered in the Central Provinces, and Sir Antony MacDonnell there adopted the plan of abolishing the outstills and substituting for them bonded warehouses which drew their supplies from the distillery. This plan was so successful in the district (Nimar) in which it was tried, that its extension to other districts has been decided upon. The Board of Revenue are requested to place themselves in communication with the Excise Commissioner, Central Provinces, with a view to trying the system in a selected area in Bengal.

18. All the districts of the Bhagalpur Division have been dealt with in the above remarks except the Sonthal Parganas. The distillery system only was in force in this district during the year, and the revenue decreased by Rs. 1,677. There were 49 cases of illicit distillation, and this large number is said to be due to the facilities for the malpractice afforded by the use of pachwai. In the Orissa Division there was an insignificant decrease in the revenue: the distillery system continued as hitherto, but since the commencement of the current year some outstills have been sanctioned in certain jungly parts of Cuttack. The smuggling of outstill liquor from the Gurhats is said to be rife in all three districts of the Division. In the Chota Nagpur Division, excluding Hazaribagh, which has already been discussed, the outstill system is everywhere in force, except that in Manbhum there is one distillery. There

was an increase of revenue in all the districts of the Division, which amounted in all to Rs. 66,073.

19. The Excise Commissioner sums up the situation thus—

“The revenue from country liquor attained the highest figure in 1887-88, when it stood at 52 lakhs. In the following year it declined to a little less than 51 lakhs, and dropped further to 47 lakhs in 1889-90. The bottom was reached in 1890-91 with 45½ lakhs.”

“The largest decrease took place in Bihar, which was mainly due to the gradual decline of the distillery revenue, and to changes in excise policy connected with the measures taken to regulate the production of outstills and increase their taxation. There was likewise a heavy fall in the Burdwan Division, which was chiefly caused by the general abolition of the outstill system. In the past two years, 1891-92 and 1892-93, much of the lost ground has been regained, and the total country liquor revenue of the past year amounted to nearly 50½ lakhs, or 1½ lakhs less than in 1887-88, but 5 lakhs more than in 1890-91. In Bihar the revenue from outstills has made great strides towards recovery, but the distillery revenue continues to suffer from insufficient protection against smuggling and from disparity between the prices of outstill and distillery liquor. The taxation on tari, too, requires to be put on a proper footing. As regards the Burdwan Division, in view of the prevalence of illicit distillation and of the difficulty of preventing it, a change of system is required in Bankura. In this Division pakhai yields a large revenue and is capable of further development.”

In all his efforts at improvement the Excise Commissioner should never lose sight of the central principle that an increase of excise revenue needs justification as not being absolutely satisfactory unless accompanied by a decreased consumption of excisable articles.

20. *Country rum.*—The following table shows the principal figures of the year for country rum:—

YEAR.	CONSUMPTION.								DUTY LEVIED.				REMARKS.
	Bengal rum.		Shahjehanpore		Aska rum.		Total.		Bengal	Shahjehan- pore rum.	Aska rum.	Total.	
	Gross	L.P.	Gross	L.P.	Gross	L.P.	Gross	L.P.					
	gallons.	gallons.	gallons.	gallons.	gallons	gallons.	gallons.	gallons.					
1891-92	16,765	21,379	43,544	56,879	17,184	23,283	77,493	101,541	Rs. 85,516	Rs. 30,001	Rs. 94,141	Rs. 2,04,628	Discrepancies be- tween consump- tion and duty have been ex- plained in table VI.
1892-93	9,386	12,008	36,102	47,979	14,597	20,189	60,145	80,176	60,040	2,39,332	1,00,349	4,00,321	
Increase or decrease ..	-7,309	-9,371	-7,392	-8,900	-2,587	-3,094	-17,338	-21,365	-25,470	+2,09,331	+7,308	+1,01,663	

The decrease in consumption shown under each class, amounting in all to 17,388 gross gallons, is owing partly to actual decrease of consumption, the result of the increase in the rate of duty from Rs. 4 to Rs. 5 from the 1st April 1892, and partly to the large clearances made at the close of the year 1891-92, in order to avoid paying the enhanced duty. The large increase in the duty obtained from Shahjehanpore rum was due to the fact that during the greater part of the year, under the notification of Government, dated 5th April 1892, it was imported into Bengal only under bond, and paid duty to this Government on issue, instead of to the North-Western Provinces as formerly. In February 1893, however, under the orders of the Government of India, the notification was withdrawn, and the rum is now as before imported duty-paid from Shahjehanpore, but by a special arrangement the importers are paying to this Government the difference of Re. 1 per gallon London-proof in the duty chargeable on country rum in the North-Western Provinces and in this Province. In last year's Resolution the sudden increase in the consumption of country rum led to a discussion whether country rum was underselling country spirit. The Excise Commissioner made enquiries during the course of the year, the result of which were duly reported to Government, and are now embodied in his report. His ultimate conclusion is that country spirit is slightly dearer than country rum when the latter is obtained direct from the agents, but considerably cheaper when the rum is obtained from wholesale dealers. He adds that there is little ground for the apprehension that country rum is ousting country liquor from the market; the latter can probably be trusted to hold its own everywhere except in and near Calcutta, owing to the preference which native consumers show for it, but the sale of both kinds of spirit should be carefully watched.

21. During the year, the practice of issuing combined licenses in the mufassal for the sale of country spirit, country rum, and imported liquors was discontinued under the orders of Government, and licenses for the sale of imported liquors are now to be issued in the mufassal only when the existence of a real demand is established. The object of these orders was to prevent the formation or development of a taste for the cheap and deleterious liquors which are imported from Europe and manipulated in this country so as to various kinds of wines and spirits.

22. *Imported spirits and wines.*—There was an increase of 3 in the whole-sale licenses, and a decrease of 48 in the general retail licenses, as the following statement shows:—

YEARS.	LICENSES.						REVENUE.
	Whole- sale.	Retail.				Total.	
		Hotel.	Railway refreshment room.	Steamer.	General.		
1887-92 (average)	225	58	21	16	521	841	Rs. 2,25,148
1891-92 ..	209	54	24	13	479	779	2,23,644
1892-93 ...	212	51	20	22	431	736	2,07,092

The decrease in revenue is ascribed to the extended issue of the combined licenses, which, as mentioned above, have now been prohibited in the mufassal. The scale of fees for licenses, both wholesale and retail, was revised during the year, and was in most cases considerably enhanced, but as the orders did not take effect until the 1st April 1893, the question is not discussed at length in the report.

23. *Tari.*—The number of licenses for the sale of tari during the year under report was reduced from 16,920 to 15,675, by the elimination of small and unprofitable shops. The revenue, which has shown a steady increase during the last six years, declined to a small extent (Rs. 7,707) during the year under report, but still exceeded that of any year except 1891-92. Of the tari revenue, 97 per cent. is contributed by twenty districts, lying in Bihar, Orissa, and the neighbourhood of Calcutta, while the remainder only provide 3 per cent. of the total. The Patna Division, as usual, contributed by far the largest proportion, amounting this year to 57 per cent. of the whole tari receipts of the province. All the districts of the Division, except Patna and Gaya, showed a decrease, which in the case of Saran amounted to Rs. 9,043, being ascribed to agricultural depression and to the enforcement of the system of paying fees direct into the treasury instead of through Excise officers. The Excise Commissioner discusses the tree-tax system, which is on its trial in Cuttack and Patna. The theory of the system is that every tree yielding tari should pay a tax according to a fixed rate. Mr. Gupta is not hopeful that the experiment will result in any great expansion of the tari revenue, but both he and the Board of Revenue are of opinion that it should not be abandoned, because, owing to the intimate connexion and the competition between the consumption of tari and of country spirits, the administration of the latter cannot be put on a sound basis until the former is more highly taxed and properly regulated and controlled. It is beyond controversy that in this matter Bengal is at a disadvantage as compared with Madras and Bombay in not possessing the subordinate revenue agency and the village establishment which in those provinces are available to assist the Excise officials: the complete introduction of the scheme therefore into Bengal must necessarily be costly in its inception, and hardly loss so in its maintenance; but the Lieutenant-Governor agrees that the experiment, which is still in its infancy, should be given a further trial.

24. *Pachwai*.—*Pachwai* is a preparation from fermented rice or millet or other such grain. It is the favourite drink of the aboriginal tribes and is largely consumed in Burdwan, Birbhum, Bankura, and Murshidabad, as well as in the insulated district of Darjeeling. The number of licenses increased by 22, and the revenue by Rs. 29,043 or over 10 per cent. The increase occurred in Birbhum, Burdwan and Darjeeling, and is ascribed in the two first-named districts to the substitution of *pachwai* as a stimulant for the high-priced distillery liquor, and in the latter district to the opening of six new shops. Besides the above, licenses for home-brewing were granted in 1,229 instances to headmen of villages inhabited by aboriginal tribes. The Excise Commissioner and the Board are of opinion that *pachwai* is not sufficiently taxed, and an attempt is being made to ascertain the consumption of materials in each shop, in order that the fee may bear some proportion to the sales.

25. *Ganja*.—The ganja crop of February and March 1892, which came into the market for consumption in 1892-93, was remarkable for the pooriness of its outturn. Though the estimated quantity of land under cultivation was nearly three times as great as in the previous year, the average produce per bigha was 50 per cent. less, so that the ultimate outturn was only slightly greater than in the previous year. The high prices realized by the drug in 1891-92 stimulated over-production, with the result that the raiyats were unable to cultivate their lands properly: it is observed that the average produce always falls off with increased cultivation. The number of retail licenses granted rose from 2,578 in 1891-92 to 2,672 in the year under report. The number of licenses issued, the consumption, and the revenue derived from duty during the last three years in the case of each kind of ganja are as follows:—

		QUANTITY CONSUMED.				
		Chur.	Round.	Flat.	Gurhjat.	Total.
		Mds.	Mds.	Mds.	Mds.	Mds.
1890-91	...	899	1,917	3,279	.....	6,095
1891-92	...	424	1,795	3,455	3	5,677
1892-93	...	1,369	1,760	2,317	5	5,451

*Revenue from duty.*

		Rs.	Rs.	Rs.	Rs.	Rs.
1890-91	...	2,51,653	4,67,613	5,90,608	...	13,10,085(a)
1891-92	...	1,18,685	4,38,233	6,90,747	400(b)	12,48,065
1892-93	...	3,84,488	4,29,839	4,65,706	538	12,80,631

(a) Including Rs. 211 credited in March 1891 on account of ganja issued after the close of the year.

(b) This includes Rs. 150 realised on account of confiscated Gurhjat ganja and credited under this head.

though there has been a decrease in the gross amount of ganja consumed, it is to be noticed that there has been a large advance in the consumption of *chur* ganja, which contains a far smaller proportion of wood and other useless matter than the other kinds. At the close of the year the duty on each kind of ganja in Bengal, Bihar and Orissa, including Gurhjat ganja, was raised by Re. 1, and a further adjustment of duty between the different kinds of the drug has been submitted for the approval of the Government of India. In January last Dr. Prain, the Curator of the Herbarium at the Royal Botanical Gardens, Sibpur, was deputed to make an enquiry into the cultivation and use of ganja. His report, which is full and exhaustive, was submitted after the close of the year, and is still under consideration. The appointment of the Hemp Drugs Commission since the close of the year under review has drawn further attention to the use of this drug.



26. *Sidhi, bhang or sabzi*.—The number of licenses for the sale of sidhi, bhang or sabzi, which are synonyms for the same substance prepared from the leaves of the hemp plant, rose from 271 to 288, and the revenue from Rs. 48,464 to Rs. 53,558, but the consumption actually decreased. The Excise Commissioner remarks that there can be little doubt but that duty is paid on only a small fraction of the amount of bhang that is consumed, since the wild hemp plant grows in almost every district: an attempt was made during the year to extirpate it, but under the orders of Government this has been abandoned as impracticable.

27. *Opium*.—The particulars in regard to excise opium, which is that offered for sale in these provinces, and is not to be confounded with provision opium prepared for export, are thus given in tabular form—

		Quantity sold.	Revenue.
		Mds.	Rs.
1890-91	...	1,942	19,95,312
1891-92	...	2,005	21,18,825
1892-93	...	1,934	20,85,116

28. The Superintendent Excise Revenue in Calcutta again insists that the smuggling of opium from the Bihar districts to Calcutta continues, and cites in proof of his statement the case of a railway mail service peon who was convicted for this offence. In this connection the question has arisen whether the treasury price of opium in the opium-producing tracts can be safely raised so as to lessen the great variations in price that now exist in different districts of the province, and the temptations to smuggling which they imply. Some correspondence has taken place on the subject with the Chief Commissioner of Assam and also with the Commissioner of Excise of the North-Western Provinces, and final orders have not yet been passed on the representations of the latter.

29. *Offences against the Excise and Opium Laws*.—The number of arrests for offences against the Excise laws decreased from 4,800 in 1891-92 to 4,634 in the year under report, but the percentage of convictions (84·8) is a little better. The arrest of 1,976 persons was effected by the police and 2,657 by Excise officers. There appears to have been during the last few years a falling off in the activity of the police in excise cases, and the observations of the Excise Commissioner will be communicated to the Inspector-General of Police for consideration. The number of licensees prosecuted for breach of license was considerable, amounting to 635. A large number of these prosecutions were for non-payment of fees on the due date, and such prosecutions have now been prohibited by the Board; but the Lieutenant-Governor is doubtful whether the prohibition should be absolute, for constant and chronic failure to pay on the due date can only be cured by prosecution in the last resort. The names of the officers mentioned by the Excise Commissioner as having done good work will be noted in the proper department.

30. The Lieutenant-Governor offers his thanks to Mr. Krishna Govinda Gupta for his careful report, and to Messrs. Westmacott and Samuells for their successful administration of the department during the year, upon which he thinks that the Board may look back with satisfaction. The revenue has increased by nearly 5 lakhs of rupees, and this result has been achieved concurrently with a decrease in the consumption of distillery liquor, country rum, ganja and bhang: some vexatious restrictions have been removed, and some useful departmental reforms have been carried out; so that Sir Antony MacDonnell hopes that a distinct step in advance has been taken towards the ideal of good excise administration, which is attained when drinking is discouraged and consumption reduced by the increase of revenue to a point which is just short of taxation which would encourage smuggling and illicit manufacture.

By order of the Lieutenant-Governor of Bengal,

J. A. BOURDILLON,

*Offg. Secretary to the Govt. of Bengal.*

**RESOLUTION ON THE ANNUAL GENERAL ADMINISTRATION  
REPORT OF THE BHAGALPUR DIVISION FOR  
THE YEAR 1892-93.**

GENERAL DEPARTMENT.—MISCELLANEOUS.

*Calcutta, the 8th November 1893.*

RESOLUTION No. 2499

**READ—**

The Annual General Administration Report of the Bhagalpur Division for the year 1892-93.

The Annual General Administration Report of the Bhagalpur Division for the year 1892-93 is submitted by Mr. Wace, who received charge after the close of the year. Mr. Quinn held the post of Commissioner throughout the year.

2. Mr. Quinn spent 124 days on tour, during which he inspected all the district and sub-divisional offices and treasuries and many of the settlements in progress in the division, finding evidence of good work and of careful supervision on the part of the District Officers in every district. In Bhagalpur Mr. Wace, Mr. Coxe and Mr. Marindin were between them on tour for 115 days. The prescribed number of days for District Officer's touring for this district is 120, but Mr. Marindin was prevented from going into camp at the end of March by a meet of the Bihar Light Horse held at Bhagalpur with the object of starting volunteering in the district. In the Sonthal Parganas Mr. Carstairs was on tour for 154 days; but the important duty of making half-yearly inspections of his own office suffered. The Collectors' tours in the remaining districts of the Division were sufficient, Mr. Faulder's tour in Purnea being specially well arranged and distributed, and all the Sub-divisional Officers fully complied with the requirements of the rules on the subject.

3. The weather conditions throughout the Division approached the normal. The bhadoi harvest was generally good except in Purnea, where, however, the jute crop is said to have given a magnificent return. Owing to the early cessation of rain, the winter rice crop was not generally so good as at one time was expected, but in no district did the outturn fall much below the average. The want of moisture at the beginning of the cold weather retarded the rabi crops, but on the whole, from an agricultural point of view, the year may be regarded as favourable.

4. The Commissioner is of opinion that the year was unfavourable to public health, though cholera diminished after the outbreak of the previous year. The mortuary returns, though admittedly inaccurate, show an increased mortality in Monghyr, Bhagalpur and the Sonthal Parganas; while in Purnea and Malda the recorded death-rate sank to about the normal level after the excessive mortality of 1891-92.

The following table shows the total annual number of deaths in each district for the last three years:—

DISTRICT.	Population by Census of 1891.	Total number of deaths.		
		1890-91.	1891-92.	1892-93.
1	2	3	4	5
Monghyr ... ..	2,036,021	54,036	59,003	67,010
Bhagalpur ... ..	2,032,696	55,801	57,899	66,927
Purnea ... ..	1,944,658	44,125	81,031	46,270
Malda ... ..	814,919	17,667	37,123	22,345
Sonthal Parganas ...	1,754,196	24,608	30,887	35,284
Total ... ..	8,582,490	196,237	265,943	237,836
Total for the calendar years ...	...	187,679	251,102	263,834



5. The famine relief operations which were undertaken in January 1892 in Monghyr, Bhagalpur, and Purnea continued into the year under review. They were brought to a close in Purnea towards the end of May, in Monghyr in July, and in Bhagalpur not till September. The report on these operations has been separately reviewed by Government. The effect of a period of distress on the material condition of the people is always difficult to gauge, but it would appear from the remarks of the District Officers, which the Commissioner quotes, that in this instance the strain was considerable, especially in Bhagalpur, of which Mr. Marindin writes:—

“The failure of the crops in 1891-92 caused widespread distress, especially in the Supaul sub-division, and necessitated relief measures. These measures were effective so far as preventing deaths from starvation, in giving employment and food to the labouring and destitute classes, and assistance in advances of grain and money to the cultivators. With a good September and winter harvest, the people have now returned very much to their normal condition, at least as far as outward appearances go. All of the cultivating classes have not suffered in the same degree. The larger and more well-to-do cultivators were able, by selling their surplus stock of grain, to make a profit out of the famine; and the way in which rents, current and arrear, have been paid up in the last six months of the year is really surprising. At the same time, I believe that the strain has been a very severe one, and that many of the raiyats will take some time in recovering from it, while others never will. The zamindars, most of them, postponed their collections in 1891-92, and in the latter part of this year have been collecting the entire arrears for the previous year, with 12 or 14 annas of the current year. The raiyats have had to find this, as well as to pay the mahajans, and many have felt extreme difficulty in meeting these demands, and a large number in order to do so have been compelled to sell their holdings or a portion of them. The registration offices furnish ample evidence of this.

“The number of sales of raiyats' holdings this year has amounted to 4,618. This is 1,388 in excess of the number sold last year. More than half these sales, 2,623, occurred in the Supaul sub-division, where the distress was most severe. Out of the holdings thus sold, 1,787 passed into the hands of mahajans. It must be remembered that such sales are for the most part forced, and only resorted to as a last measure, when the raiyat is unable to satisfy his creditor in any other way; and they indicate the state of indebtedness reached by a still larger class, who have not yet been compelled to part with their lands. The large landless class in North Bhagalpur have also no doubt suffered severely. The zamindars also suffered as a class. The zamindars of this district are very much in debt, especially in the north and south.

“The really progressive class seem to be the money-lenders, including in that category those who lend money in addition to some other business or profession, as well as the professional money-lender. These as a class are literally adding house to house and field to field; the larger and most successful among them buying up zamindaris, and the small ones purchasing jotes, and are thus every year tightening their grasp on the land.”

In Malda the labouring classes are said to be still depressed, but in Monghyr, Purnea and the Sonthal Parganas there are indications that the people have recovered their normal condition of prosperity. Mr. Faulder writes of Purnea:—

“It is at any rate satisfactory to know that all rent-receivers, traders, cultivators, and day-labourers made up the ground lost in 1891-92, if they did not make any positive progress in their material condition.”

“Labour is much dearer than in Bihar, and the Purnea labourer can afford to be notorious, both for his independence and his inefficiency.”

As regards prices the Commissioner remarks:—

“Prices generally ruled high owing to depletion of stocks and brisk demand for export, and, as usual, the fall has not been at all commensurate with the improvement of agricultural outturn. Every scarcity seems to leave its trace in a slight permanent rise in food-grains.

“Prices of labour have changed but little: what slight movement there has been of late years has tended to give the lowest labourer of each class a rise in wages. That the rise has not declared itself more clearly is of course due to the system by which village labour, even when skilled, is still paid in grain. The wage of a common agricultural labourer vary from two annas a day in Monghyr to three annas in Malda and the Sonthal Parganas.”

6. As usual, there was little permanent emigration from any of the districts of the Division, except the Sonthal Parganas. Free recruiting in this district continues to replace the registration system, and abuses continue to exist; but it is satisfactory to note that prosecutions for offences connected with emigration fell from 20 in 1891-92 to 12 in the year under review, while the percentage of convictions rose from 20 to 33, and the Commissioner remarks that, given some simple rules for tracing

the movements of emigrants and bringing the operations of recruiters more under official supervision, there is no reason why free emigration should not be the boon to the aboriginal classes which it is meant to be, and generally is. Increased powers of supervision are the more necessary, seeing that the mal-practices of some European and Eurasian recruiters, and of the agents of others, are beginning to destroy the good feeling of the Sonthals towards Europeans, and a first step in the desired direction has been taken in the recent extension of Act I (B. C.) of 1889 to the Sonthal Parganas. 1,119 coolies were recruited in the Sonthal Parganas for Government service in Chittagong. In Monghyr there was a slight increase in the number of coolies registered, but emigration from that district is still in its infancy.

7. Trade throughout the Division was better during the year under report than in the previous year, when it suffered from the prevailing scarcity. Monghyr and Bhagalpur showed least recovery. English piece-goods continue to supplant locally manufactured cloth, except in the Sonthal Parganas, where the aboriginal tribes still wear country cloth. In Purnea an export trade in mats has grown up owing to the opening of the railway to Kishanganj. The export of *sabai* grass from the Sonthal Parganas for use in paper manufacture still flourishes. The outturn of indigo was poor throughout the Division, but high prices partly compensated for this. The stone and slate quarries in the Dharhara hills in Monghyr continue to be worked, and in the Sonthal Parganas stone-quarrying, encouraged by the lowering of the rates of railway freight, is a large and growing industry. A trade in buffalo horns seems to be springing up in this district and that in bones is increasing.

8. The following statement shows the work done by the Civil Courts during the year:—

DISTRICT.	Sub-division or chauki.	Description of Court.	Number of officers.	NUMBER OF ORIGINAL CASES DISPOSED OF.		DETAILS OF CASES IN COLUMNS 5A AND 5B.					Number of witnesses exami-n-d.	Ratio per cent. of witnesses detained over two days to total number examined.	Ratio per cent. of cases pending at end of year to total disposed of.
				Ordinary.	Small Cause Court,	Money.	Rent.	Title.					
1	2	3	4	5A.	5B.	6	7	8	9	10	11		
Monghyr...	Sadar ... ..	Munsif ... ..	2	3,060	1,430	2,011	2,356	123	2,892	16	11		
	Bogusarai ... ..	Do. ... ..	1½	1,530	621	1,144	820	187	2,270	31	18		
	Jamui ... ..	Do. ... ..	1	560	...	288	250	12	580	26	32		
Bhagalpur ...	Sadar ... ..	Do. ... ..	2	2,638	1,268	1,601	2,104	107	3,507	23	15		
	Madhipura ... ..	Do. ... ..	1½	3,781	1,634	2,166	3,136	113	3,038	11	10		
	Banka ... ..	Do. ... ..	1	676	291	499	943	26	1,563	57	34		
Purnea ... ..	Sadar ... ..	Do. ... ..	1	1,817	543	1,027	1,228	105	1,472	8	12		
	Araria ... ..	Do. ... ..	1½	3,287	450	832	2,704	150	2,464	4	9		
	Kishanganj ... ..	Do. ... ..	2	8,244	914	1,442	2,121	195	3,922	7	18		
Malda ... ..	Sadar ... ..	Do. ... ..	1	1,136	831	1,268	662	40	2,021	3	11		
	Kudba ... ..	Do. ... ..	2	1,897	1,208	2,216	900	79	5,015	10	19		
	Nawabganj ... ..	Do. ... ..	1	1,614	702	1,417	908	51	2,985	5	12		
Total			17½	25,132	10,061	16,391	17,596	1,196	51,733	11	13		
† Total for 1891			23½	20,712	8,571	15,201	12,542	1,350	70,370½	11	23		
Sonthal Parganas	Sadar ... ..	Munsif ... ..	6	3,753	...	2,662	671	420	Register not kept.	...	14		
	Deoghar ... ..	Do. ... ..	8	2,274	...	1,183	593	517		...	10		
	Goddā ... ..	Do. ... ..	3	1,574	...	408	807	269		...	21		
	Jamtara ... ..	Do. ... ..	2	968	...	281	301	330		...	12		
	Pakeut ... ..	Do. ... ..	2	891	...	423	225	173		...	3		
	Rajmahal ... ..	Do. ... ..	3½	1,277	...	600	335	243		406	15		
Total			19½	10,685	...	5,711	3,082	1,892	406*	11	13		
‡ Total for 1891			18	8,707	...	4,651	2,218	1,828	Not recorded.	...	15		

\* In Rajmahal only.

† Includes the figures for Judges and Sub-Judges.

‡ Ditto ditto.

§ These figures show the number of witnesses who attended.

As in the preceding year, the work of the Munsifs at Jamui and Banka was very light. Madhipura shows the largest number of cases disposed of. The detention of witnesses was greatest in the Monghyr district and in the Sadar station of Bhagalpur. In Purnea, where work was heavy, witnesses were released very

promptly. The Witness Attendance Register has been opened only at Rajmahal of the Courts in the Sonthal Parganas. The proportion of cases pending at the end of the year was highest at Banka and Jamui, the two Courts where work was lightest.

The percentage of appeals in which the original order was confirmed varied from 49.09 in Monghyr to 61.1 in Purnea.

9. The influence of settlement operations under Chapter X of the Tenancy Act on the relations between landlord and tenant is illustrated by the following remarks which are taken from the Commissioner's Report:—

"The Collector of Monghyr notes that the settlement and record of rights in the estates of Banaili and Srinagar have been attended with excellent results. Of the 700 rent suits instituted in the Sadar sub-division during the past year by the proprietors of these estates, only a small percentage were contested. There was little or no dispute about the rate of rent. The raiyats appeal to the settlement papers as their title-deeds. The Collector of Bhagalpur draws attention to an abnormal increase of 2,597 suits in the court of the Munsif of Madhipura during the past year, rent suits having nearly doubled in number, and Small Cause Court suits more than doubled. A large proportion of the former came from the Banaili-Srinagar zamindari. The settlement records have placed these zamindars in a better position than they have been of late years to press claims for arrears, and this, coupled with mismanagement on the Srinagar side, probably forced this large resort to the courts."

A large increase in cognizable crime is reported, the number of offences being 14,673 in 1892 against 12,584 in 1891. To this increase which consists chiefly of offences against property, stimulated by the prevailing scarcity and the consequent high prices, all districts except Malda contributed.

The number of rioting cases increased in Monghyr, but decreased elsewhere, while there was an increase of dacoity in all districts except Malda, the increase being serious in Purnea and the Sonthal Parganas. The amount of cognizable crime was less in all districts except Bhagalpur, where the total is swelled by activity in prosecuting breaches of special laws. The decrease elsewhere is commonly noticed in years of scarcity.

The following table illustrates the state of criminal justice in each district:—

*Stipendiary Magistrates*

DISTRICT.	Sub-division.	Class of officers.	Number of officers.	Cases disposed of.	Persons disposed of.	Ratio per cent. of persons convicted to disposed of.	Number of witnesses examined.	Ratio per cent. of witnesses detained over two days to total number attended.	Ratio per cent. of cases confirmed in appeal to total appealed.	Number of cases disposed of.	Number remanded six times and more.	Average of cases disposed of per officer.	Average of witnesses examined per case disposed of.	Ratio per cent. of column 12 to 11.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MONGHYR	Sadar ...	Stipendiary ...	51	1,131	1,752	40	6,978	10	72	585	59	197	6	10
	Jamui ...	Ditto ...	1	637	1,030	55	2,512	3	91	371	2	637	4	1
	Begumrai ...	Ditto ...	1	498	1,110	47	2,738	14	80	203	0	498	5	4
BHAGALPUR	Sadar ...	Stipendiary ...	61	2,780	3,571	70	6,420	1	82	446	2	409	2	4
	Banka ...	Ditto ...	1	466	711	63	1,840	3	.....	213	6	406	4	3
	Madhipura ...	Ditto ...	12	254	354	58	1,343	32	.....	93	3	203	5	3
	Sapani ...	Ditto ...	12	605	704	63	3,007	1	83	225	2	404	6	1
PURNEA	Sadar ...	Stipendiary ...	6	758	1,098	43	3,028	9	90	223	34	126	5	16
	Krishanganj ...	Ditto ...	2	555	918	54	2,101	0	77	268	8	243	4	3
	Araria ...	Ditto ...	1	266	405	60	1,648	1	96	184	1	280	6	5
MALDA	Sadar ...	Stipendiary ...	42	927	1,294	58	5,747	3	72	418	12	195	6	3
SONTHAL PARGANAS.	Sadar ...	Stipendiary ...	6	845	1,367	44	2,463	4	76	.....	.....	141	3	.....
	Katikund ...	Ditto ...	1	264	308	74	661	5	74	.....	.....	264	2	.....
	Deoghur ...	Ditto ...	3	955	1,224	54	2,882	2	84	217	5	323	3	2
	Godda ...	Ditto ...	3	488	816	66	2,303	.....	91	130	.....	162	5	.....
	Jamtara ...	Ditto ...	2	184	342	60	674	.....	61	.....	.....	92	4	.....
	Pakaur ...	Ditto ...	2	674	892	59	2,030	.....	86	194	1	337	3	5
	Rajmahal ...	Ditto ...	24	700	1,129	52	2,695	9	84	130	.....	280	4	.....
Total			511	12,908	19,105	59	51,474	5	80	3,810	144	252	4	4
Total for 1891-92			471	12,411	17,928	52	47,622	5	78	3,958	310	263	6	8

\* Register not kept.

*Honorary Magistrate*

MONGHYR	Sadar ...	Honorary ...	1	808	491	63	685	7	75	5	308	2	.....
	Jamulpur ...	Ditto ...	1	80	49	38	62	.....	.....	.....	80	1	.....
	Jamui ...	Ditto ...	1	62	75	59	110	12	60	3	63	2	.....
	Shaikpura ...	Ditto ...	1	196	242	70	540	6	60	24	166	3	.....
	Beguserai ...	Ditto ...	1	170	330	37	686	40	60	20	175	4	16
BHAGALPUR	Sadar ...	Honorary ...	1	824	339	72	444	3	.....	.....	324	1	.....
	Cahong ...	Ditto ...	1	162	173	67	46	.....	.....	.....	162	20	.....
	Banka ...	Ditto ...	1	46	56	36	149	10	20	.....	46	3	.....
	Amarpur ...	Ditto ...	1	36	32	25	70	38	.....	.....	36	3	.....
	Madhipura ...	Ditto ...	1	64	67	51	177	61	60	.....	64	3	.....
	Sontwari ...	Ditto ...	1	18	25	48	101	.....	83	.....	18	6	.....
	Bapaul ...	Ditto ...	1	41	66	47	101	.....	44	.....	41	2	.....
PURNEA	Bangaon ...	Ditto ...	1	34	43	49	66	36	.....	.....	34	3	.....
	Sadar ...	Honorary ...	1	53	74	34	43	23	.....	.....	53	1	.....
	Krishanganj ...	Ditto ...	1	75	104	41	144	.....	.....	.....	75	2	.....
MALDA	Araria ...	Ditto ...	1	72	74	38	178	.....	.....	.....	72	2	.....
	Sadar ...	Honorary ...	1	163	119	29	235	23	100	1	103	2	.....
	Nawabganj ...	Ditto ...	1	122	102	54	452	9	44	40	122	4	2
SONTHAL PARGANAS	Old Malda ...	Ditto ...	1	25	30	80	98	.....	100	.....	26	4	.....
	Sadar ...	Honorary ...	1	320	351	88	360	.....	56	.....	320	1	.....
	Total ...	Honorary ...	20	2,253	2,704	60	4,745	13	51	103	4	112	2
Total for 1891-92 ...			20	2,492	2,972	61	5,377	6	60	77	8	125	3

† These figures show the number of witnesses who attended.

The above table does not accurately exhibit the comparative amount of work done by the Magistrates of the different districts, because the number of petty cases under special laws, which give little work, varies greatly. Excluding such cases, the average number of cases disposed of per officer in each district is—

Sonthal Parganas ...	... 171.3
Monghyr ...	... 157.03
Malda ...	... 145.6
Purnea ...	... 133.8
Bhagalpur ...	... 59.4

A general and satisfactory improvement is observed in regard to the detention of witnesses in the courts of Stipendiary Magistrates, which is due not only to witnesses being more promptly examined in compliance with the orders of Government, but also to more care being taken by Magistrates in the arrangement of their files. In contrast to the excellent results attained elsewhere, the Stipendiary Magistrate of Beguserai in Monghyr detained 14 per cent. of his witnesses over two days, and at Madhipura in Bhagalpur as many as 32 per cent. of the witnesses were so detained.

Much improvement is still possible in this respect in the Courts of some Honorary Magistrates. At Madhipura 41 per cent. of the witnesses examined by the Bench were detained over two days; at Beguserai the percentage was 40, and at Bangaon 36; while at Amarpur, Malda and Purnea it was over 20. On the other hand the Honorary Benches at Monghyr, Shaikpura, Bhagalpur, and Nawabganj examined a considerable number of witnesses with much promptitude.

As regards the percentage of convictions and the percentage of decisions confirmed on appeal, the following remarks of the Commissioner are of interest:—

The percentage of convictions in each district compares thus for the two past years—

	1891.	1892.
Monghyr ...	47.4	49.8
Bhagalpur ...	63.8	73.3
Purnea ...	43.4	50.2
Malda ...	59.8	57.9
Sonthal Parganas ...	41.6	55.5

It is only in Bhagalpur that the ratio of convictions has risen markedly, and there it is probably explained by the large percentage of cases under special laws noticed above. There has been a decided rise in convictions in the Sonthal Parganas, but even now it stands at only 55.5, which is certainly low. I draw attention to these figures, because it has been alleged that the recent movement designed to quicken work without impairing it has resulted in some sacrifice of independent judgment in weak Magistrates. There is nothing in the percentage

of decisions confirmed on appeal to indicate this or undue hurry. That has been best in Bhagalpur and Purnea, and worst in Malda, where it was 72.15 of the cases decided. The figures for two years in this respect compare thus—

	1891.	1892.
Monghyr	79.4	78.2
Bhagalpur	79.9	82.6
Purnea	72.4	82.8
Malda	69.4	72.1
Sonthal Parganas	79.8	81.52

10. The following statement shows the attendance of Honorary Magistrates:—

DISTRICT.	Number of Honorary Magistrates.	Number of times asked to attend.	Number of times actually attended.	NUMBER OF ABSENCES.		
				With leave or notice.	Without leave or notice.	Total.
1	2	3	4	5	6	7
Monghyr	61	1,368	1,205*	94	364	458
Bhagalpur	125	1,720	1,012†	246	505	751
Purnea	40	323	157	39	127	166
Malda	24	669	600‡	74	10	84
Sonthal Parganas	3	54	43	2	9	11

\* Excess attendance ... 295  
† Ditto ... 43  
‡ Ditto ... 15

The attendance was very good in Malda, where, out of 669 requisitions, there were only 10 absences without notice—a very creditable result. In Purnea the absences after requisition were actually more numerous than the attendances. Attendance was also poor in Bhagalpur, where it is reported that the bulk of the work is done by a few energetic men. The Collector of Purnea writes that the Purnea Bench contains several Magistrates of long experience and high character, of whom he cannot make sufficient use. "The usual difficulty is felt: it is no compliment to ask them to try petty assault cases. If interesting cases are given to them, they cannot dispose of them at one sitting, and cannot afford time for two or three consecutive days' attendance. Honorary Magistrates will perhaps not be of much use to us until they are empowered to take up and dispose of cases in their own villages."

11. The following table shows the amount of fines imposed, collected, and remitted during the year under review:—

DISTRICT.	Balance outstanding at commencement of the year.	Amount imposed during the year.	Total demand.	Amount collected during the year.	Amount remitted or written off during the year.	Total collected and remitted.	Balance outstanding at the end of the year.
1	2	3	4	5	6	7	8
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Monghyr	7,814 3 1	20,109 13 6	27,924 0 7	14,989 12 5	4,427 4 0	19,417 0 5	7,937 0 2
Bhagalpur	8,812 0 0	10,719 0 0	25,531 0 0	11,317 0 0	1,746 0 0	16,063 0 0	9,499 0 0
Purnea	8,315 4 0	9,369 7 6	17,674 11 6	8,448 10 9	2,268 13 9	10,717 8 6	6,957 3 0
Malda	3,248 15 3	6,528 7 8	9,772 7 0	5,888 4 3	1,667 12 3	6,956 0 6	2,816 6 6
Sonthal Parganas.	11,274 4 1	17,159 12 3	28,434 0 4	15,486 2 10	661 12 3	16,047 15 1	12,386 1 3
Divisional Total	38,889 10 5	69,876 9 0	1,08,766 3 5	59,129 14 3	10,070 10 3	69,200 8 6	39,565 10 11

In Monghyr, Bhagalpur, and the Sonthal Parganas the closing balances were larger than the opening balances. In the Government Resolution on the last Divisional Report, attention was called to the increase in outstanding fines, and the progress made towards reducing the balances cannot be considered satisfactory. Even in Purnea the balance, though it is being gradually reduced, bears an unusually large proportion to the amount imposed during the year.

12. The following table shows the results of Sessions trials in each district for the year under review:—

DISTRICT.	Number of cases committed, but pending at commencement of year.	Number committed during the year.	Total number for disposal.	Number disposed of.	Number in which conviction obtained.	Number of cases in which sentence was modified or reversed by High Court.	Number of cases acquitted by Sessions Judge.	Number of cases otherwise disposed of.	Percentage of cases resulting in conviction to total cases disposed of.
1	2	3	4	5	6	7	8	9	10
Monghyr ...	2	34	40	35	29	...	6	...	82.85
Bhagalpur ...	5	42	47	44	34	2	10	...	77.27
Purnea ...	2	37	39	34	26	3	4	...	76.4
Malda ...	10	18	28	24	24	...	...	...	85.71
Sonthal Parganas ...	...	15	15	15	12	2	3	...	80
Total for the Division	19	150	174	156	125	7	31	...	80.12

The percentage of cases in which convictions were obtained was over 80 for the Division, which indicates that committals are made with discretion, and enquiries carefully conducted both by the Police and the Magistrates.

13. The following table shows the registration work of the Division:—

DISTRICT.	Class of Registration office.	Number of offices.	Number of documents registered.	Average per office.
1	2	3	4	5
Monghyr ...	Special ...	1	2,516	2,516
	Rural ...	7	11,302	1,615
Bhagalpur ...	Special ...	1	3,216	3,216
	Rural ...	6	18,415	3,069
Purnea ...	Special ...	1	3,826	3,826
	Rural ...	3	12,022	4,007
Malda ...	Ex-officio ...	1	2,584	2,584
	Rural ...	3	6,547	2,182
Sonthal Parganas ...	Ex-officio ...	2	2,912	1,456
	Rural ...	4	7,990	1,997
Total ...	Special ...	6	15,054	2,509
	Rural ...	23	56,276	2,447

In every district there was an increase in the number of registrations; the increase in the number of sales and mortgages registered was connected with the recent agricultural distress, as is shown by the fact that it was most marked in Purnea and the Supaul sub-division of Bhagalpur, where the distress had been greatest. The number of registrations per office was highest in Purnea; relatively to population, registration is most common in Malda and Bhagalpur.

14. Below are shown, district by district, the demand, collection and outstanding balance of revenue and cesses:—

DISTRICT.	Class of demand.	Class of estates.	Number of estates.	DEMAND.		COLLECTIONS OF 1892-93.		BALANCE ON 1st APRIL 1893.		REMARKS.
				Current.	Arrear.	Current.	Arrear.	Current.	Arrear.	
1	2	3	4	5	6	7	8	9	10	11
Monghyr	Land Revenue	I ... ..	7,035	Rs. 7,78,908	Rs. 13,660	Rs. 7,73,512	Rs. 14,386	Rs. 5,371	Rs. 776	Rs. 423 remitted.
		II ... ..	53	36,645	1,880	36,166	1,390	477	81	
		III ... ..	30	55,308	85,661	32,035	26,793	23,268	6,523	
		Total Land Revenue...	7,118	8,70,854	53,001	8,41,713	40,277	29,076	7,207	
	Road cess	Estates ... ..	12,151	1,23,716	40,050	1,01,694	34,871	22,023	5,179	
Bhagalpur		Rent-free tenures ...	7	201	103	112	.....	89	103	
	Zamindari Dak	Estates ... ..	3,025	3,687	971	3,009	451	278	540	
	Embankment cess	.....	641	873	3,620	66	2,998	806	623	
		Total ... ..	.....	9,77,664	97,705	9,47,194	63,597	52,371	13,811	
	Land Revenue	I ... ..	4,502	5,04,077	13,053	5,52,684	12,311	11,383	743	Rs. 640 ditto.
Bhagalpur		II ... ..	18	1,504	127	931	494	573	695	
		III ... ..	65	32,959	11,284	28,196	7,766	4,798	2,909	
		Total Land Revenue...	4,585	5,38,540	25,264	6,81,791	20,511	16,749	4,104	
	Road cess	Estates ... ..	6,637	1,47,875	17,418	1,36,137	13,944	11,718	3,075	Rs. 399 ditto.
Purnea		Rent-free tenures ...	1,858	.....	.....	.....	.....	.....	.....	
	Zamindari Dak	Estates ... ..	1,148	9,230	382	8,723	382	516	4	
		Total ... ..	.....	7,55,654	43,164	7,26,671	34,837	28,663	7,179	
Purnea	Land Revenue	I ... ..	1,024	11,72,830	1,300	10,53,909	1,300	1,18,450	.....	Rs. 11 ditto.
		II ... ..	48	1,701	352	1,167	238	534	114	
		III ... ..	0	3,784	2,519	1,677	2,079	1,903	410	
		Total Land Revenue...	1,072	11,78,315	4,171	14,56,713	3,617	1,21,347	524	Rs. 274 ditto.
	Road cess	Estates ... ..	2,412	1,03,704	5,296	84,213	5,253	19,491	46	
Malda		Rent-free tenures ...	8,034	.....	.....	.....	.....	.....	.....	
	Zamindari Dak	Estates ... ..	563	10,455	338	10,140	203	315	185	
		Total ... ..	.....	12,92,473	9,897	11,51,006	9,073	1,41,153	704	
	Land Revenue	I ... ..	570	3,08,683	4,834	3,02,190	4,834	6,403	.....	Rs. 222 ditto.
Malda		II ... ..	21	12,511	94	11,260	94	1,251	.....	
		III ... ..	20	22,056	3,685	18,231	3,442	3,806	40	
		Total Land Revenue...	620	4,31,250	8,613	4,21,681	8,370	11,550	40	
	Road cess	Estates ... ..	805	20,100	3,902	20,209	3,800	2,709	1	Rs. 3 ditto.
Sonthal Parganas		Rent-free tenures ...	545	.....	.....	.....	.....	.....	.....	
	Zamindari Dak	Estates ... ..	507	7,802	3,302	6,613	2,818	845	444	
		Total ... ..	.....	4,70,162	15,677	4,54,503	14,998	16,194	465	
	Land Revenue	I ... ..	476	1,15,660	40	1,15,237	40	423	.....	Rs. 75 ditto.
Sonthal Parganas		II ... ..	6	1,343	2	1,341	2	2	.....	
		III ... ..	10	1,72,001	3,077	1,68,533	2,344	3,525	658	
		Total Land Revenue...	492	2,88,004	3,119	2,85,111	2,386	3,953	658	
	Road cess	Estates ... ..	.....	.....	.....	.....	.....	.....	.....	The Cess Act is not in force in this district.
Sonthal Parganas		Rent-free tenures ...	.....	.....	.....	.....	.....	.....	.....	
	Zamindari Dak	Estates ... ..	308	3,020	1,313	2,691	1,166	329	147	
		Total ... ..	.....	2,92,064	4,432	2,87,802	3,532	4,282	805	
		GRAND TOTAL ...	.....	39,09,894	1,70,745	36,07,326	1,46,047	2,41,883	22,984	Rs. 2,399 remitted.
Sonthal Parganas		GRAND TOTAL FOR 1891-92 ...	.....	37,75,109	1,53,428	36,43,030	1,30,371	1,34,064	26,642	
			.....	.....	.....	.....	.....	.....	.....	

The total current demand of Land Revenue was Rs. 33,70,022, and of this Rs. 31,87,009 was collected. The percentage of current collections to current demand was only 94·5 against 97·6 of the preceding year. The current and arrear collections together came to 94·46 per cent. of the total demand. The total balance of Land Revenue outstanding at the close of the year was Rs. 1,95,368. These somewhat unsatisfactory results are mainly due to the bankruptcy of the proprietor of some very large estates in Purnea, resulting in his failure to pay revenue amounting to over a lakh of rupees at the last list of the year. The amount has since been realized. The standard of 99 per cent. on the current demand in permanently-settled estates was reached in the Sonthal Parganas and was nearly reached in Malda, but in Bhagalpur the collections amounted to only 97·98 and in Purnea to 89·86 per cent., and in these districts the realisations in temporarily-settled estates were also far below the prescribed standard.

The collections in estates held direct by Government improved in Bhagalpur, but are still very bad in Monghyr and Purnea: in the Sonthal Parganas alone, where they were as usual excellent, was the prescribed standard reached. The outstanding balance of road cess diminished in every district except Purnea, where Rs. 19,491 were outstanding on a current demand of Rs. 1,03,704: the balance in Monghyr is still considerable.

15. The following statement shows the result of certificate work during the year:—

Certificates.

DISTRICT.	Department.	Number pending at beginning of year.	Number issued during year.	Total for disposal.	Amount of certificates.	Number disposed of during year.	Amount realized.	Number pending at close of year.
	2	3	4	5	6	7	8	9
Monghyr					Rs.		Rs.	
	Khas Mahal ... ..	358	655	993	12,762	896	7,913	185
	Embankment ... ..	133	285	418	1,690	295	1,182	123
	Road and Public Works Cesses ...	1,963	3,745	5,608	14,507	3,600	40,977	2,065
	Court of Wards ... ..	221	5	226	9,886	223	4,396	3
	Zamindari Dak Cess ... ..	244	44	288	993	250	727	55
	Miscellaneous ... ..	83	424	507	14,094	341	9,150	166
	Total	2,892	5,158	8,040	1,03,934	5,407	61,345	2,542
	Total for 1891-92	2,187	3,940*	6,127	107,082	3,235	54,908	2,582
Bhagalpur	Road and Public Works Cess ...	523	1,183	1,706	37,843	1,413	21,496	293
	Court of Wards ... ..	891	44	935	15,443	843	10,526	90
	Khas Mahals ... ..	70	42	112	4,215	85	3,040	27
	Zamindari Dak Cess ... ..	248	104	352	957	328	1,357	24
	Miscellaneous ... ..	73	123	196	9,049	147	4,537	40
	Total	1,805	1,496	3,301	67,513	2,816	40,966	483
	Total for 1891-92	2,050	2,771*	4,820	148,578	3,625	65,135	1,805
Purnea	Khas Mahals ... ..	...	40	40	1,035	28	500	1
	Miscellaneous ... ..	6	36	41	3,298	33	11,556	8
	Zamindari Dak Cess ... ..	60	...	60	781	60	781	...
	Road Cess and Public Works Cess	19	331	350	24,765	330	24,330	14
	Pound ... ..	65	103	168	18,553	73	5,876	95
	Ferry ... ..	13	34	47	3,208	46	3,091	1
	Estate Maldwar ... ..	20	133	153	6,300	153	1,691	...
	„ Srinagar ... ..	38	...	38	2,125	38	440	...
	„ Sukhraj Bai ... ..	16	70	86	2,770	86	1,535	...
	Total	243	755	998	62,835	859	50,590	130
	Total for 1891-92	551	1,420*	1,971	87,925	1,788	75,265	245
Malda	Khas Mahals ... ..	77	221	298	2,795	265	2,442	35
	Cesses ... ..	146	321	469	7,572	429	6,251	40
	Miscellaneous ... ..	19	85	104	9,619	45	2,696	9
	Total	244	577	821	19,985	739	11,389	82
	Total for 1891-92	259	970*	1,229	18,733	901	10,453	244
Sonthal Parganas	For all departments ... ..	28	101	129	3,053	105	2,698	24
	Total for 1891-92	45	60*	105	2,991	77	1,691	28
	GRAND TOTAL	5,202	8,087	13,289	2,58,320	10,018	1,70,278	3,271
	GRAND TOTAL FOR 1891-92	5,701	9,167*	14,868	366,909	9,666	308,481	5,202

\* These figures show the number of certificates filed during year.



The number of certificates remaining undisposed of at the end of the year was in every district less than the number at the beginning of the year. For the whole division the number fell from 5,202 to 3,271, a result which the Lieutenant-Governor regards as satisfactory.

16. The outturn of land acquisition work is shown below —

DISTRICT.	Number of cases pending at commencement of year.	Number of cases instituted.	Total number of cases for disposal.	Number of cases disposed of.	Balance pending at end of year.	Date of oldest pending cases.
1	2	3	4	5	6	7
Monghyr ...	1	2	3	1	2	26th January 1893.
Bhagalpur ...	3	3	6	3	3	31st August 1892.
Purnea ...	62	24	86	37	49	1 case of 1888-89. 21 cases of 1890-91. 9 cases of 1891-92.
Malda ...	7	...	7	5	2	25th December 1891.
Sonthal Parganas.	7	2	9	5	4	7th December 1890.
Divisional Total	80	31	111	51	60	

The number of cases is small, except in Purnea, where there are some cases of long standing which should be disposed of as soon as possible.

17. The only settlement work undertaken during the year was in certain estates in the Dumka and Godda sub-divisions of the Sonthal Parganas, where two survey parties were

at work.

18. The Excise revenue decreased from Rs. 12,51,755 to Rs. 12,17,947.

The decrease is distributed over all the districts except Monghyr, and was mainly due to the prevalent scarcity. The incidence of Excise revenue was annas 2-3 per head of population. The following table shows the Excise statistics for the year :—

DISTRICT.	COUNTRY SPIRITS.				GANJA AND BRANG.				OPIMUM.			
	Number of shops.	License fees.	Gross gal- lons.	Total receipts.	Number of shops.	License fees.	Gross maunds.	Total receipts.	Number of shops.	License fees.	Gross maunds.	Total receipts.
1	2	3	4	5	6	7	8	9	10	11	12	13
Monghyr ...	185	Rs. 1,57,069	68,408	Rs. 1,63,450	187	Rs. 40,110	233	Rs. 97,540	16	Rs. 1,713	9	Rs. 6,223
Bhagalpur ...	85	10,017	140,127	1,18,638	184	50,846	244	1,11,280	47	4,856	22	17,880
Purnea ...	87	94,965	69,373	94,853	149	55,544	227	1,09,524	88	10,704	46	56,305
Malda ...	50	54,902	10,677*	54,962	80	18,878	63	24,418	41	9,593	48	48,413
Sonthal Parganas ...	96	33,390	25,489	61,611	64	27,838	92	47,368	21	5,650	10	12,451

	Revenue from all sources.	Rate per head of population.
	Rs.	Rs. A. P.
Monghyr ...	3,34,888	0 2 10
Bhagalpur ...	2,35,500	0 2 3
Purnea ...	2,69,167	0 2 3
Malda ...	1,58,453	0 3 1
Sonthal Parganas	1,65,108	0 1 7
Total	12,17,947	0 2 3

\* London-proof gallons.

19. There was an improvement in the number of public schools and of pupils attending them, but the loss sustained in the preceding year has not been made good, and in Bhagalpur the figures continue to show a serious decline.

The subjoined table shows the number of schools of all classes in each district, the number of pupils and the incomes of the schools, with the sources from which the incomes are derived, and the cost per head of the pupils:—

DISTRICT.	Class of schools.	Number of schools.	Number of pupils on rolls.	Cost.						Cost per head of pupils.	Population of district.	Number of boys of school-going age.	Percentage of boys at school to boys of school-going age according to the Director of Public Instruction's Report.
				Provincial.	District Board.	Municipality.	Pos.	Other.	Total.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Monghyr	High	5	1,139	Rs. 436	Rs. 1,333	Rs. 950	Rs. 17,373	Rs. 2,868	Rs. 22,850	Rs. 20	2,036,021	148,060	15.8
	Middle	14	754	310	2,677	240	1,484	2,309	7,050	9 9 8			
	Primary	923	10,930	909	8,667	2,319	34,500	51	46,543	2 6 4			
	Special	2	98	...	...	...	...	120	120	1 3 7			
	Total	944	21,867	1,653	12,576	3,509	53,423	5,468	76,371	3 7 11			
Bhagalpur	Total for 1891-92	900	21,096	4,827	14,732	2,642	40,905	7,233	78,314	3 12 2	2,032,606	150,730	15
	High	5	1,388	1,323	...	...	18,970	7,013	25,513	19 13 2			
	Middle	12	767	553	3,227	604	2,718	2,640	9,708	13 11 8			
	Primary	620	12,394	1,408	7,365	234	23,459	208	32,674	2 10 2			
	Special	...	...	...	...	...	...	...	...	...			
Purnea	Total	637	14,479	3,284	10,592	808	45,186	9,767	67,897	4 11 0	1,914,658	140,024	10
	Total for 1891-92	893	19,205	5,631	10,126	801	54,696	9,508	80,756	4 8 2			
	High	2	238	2,369	...	...	4,903	870	7,416	31 8 8			
	Middle	12	649	...	2,328	390	1,386	2,744	6,084	12 8 1			
	Primary	620	12,603	107	8,565	231	28,443	5,763	43,699	3 6 11			
Malda	Special	2	26	171	1,113	...	...	613	2,657	101 6 9			
	Total	645	13,504	2,704	12,346	621	31,432	10,316	60,640	4 7 8			
	Total for 1891-92	490	10,338	3,812	9,592	592	26,130	7,149	40,575	4 8 2			
	High	2	208	1,800	...	...	3,620	3,039	8,750	23 10 11	814,919	53,987	18.5
	Middle	23	1,738	222	4,507	838	5,370	2,211	13,148	7 9 4			
	Primary	318	9,487	525	7,011	162	13,488	1,872	23,673	2 7 10			
	Special	1	3	9	31	...	...	...	40	13 5 4			
	Total	344	11,491	2,556	12,349	1,000	22,778	7,122	43,600	3 15 5			
Sonthal Parganas	Total for 1891-92	351	11,167	6,515	14,722	1,127	22,716	12,340	37,620	5 2 6	1,624,956	130,585	18
	High	3	416	3,880	...	405	3,820	3,717	11,840	28 8 6			
	Middle	17	843	4,126	...	120	2,806	4,170	11,521	13 0 0			
	Primary	672	16,012	19,990	...	93	16,854	9,898	45,835	2 6 1			
	Special	13	110	985	...	...	...	1,917	2,902	24 6 2			
Total of division	Total	706	17,429	29,290	...	618	23,488	19,612	54,441	3 11 1	8,453,250	636,396	13.5
	Total for 1891-92	661	15,806	26,391	...	619	22,943	27,710	77,669	4 14 7			
	High	17	3,436	10,014	1,932	1,365	48,304	17,513	78,418	22 3 10			
	Middle	78	4,600	5,511	12,730	2,272	13,735	14,000	44,205	10 7 9			
	Primary	3,192	70,512	22,909	32,148	3,653	1,17,385	17,792	1,91,313	2 9 10			
Total of division	Special	18	240	1,165	1,544	...	...	2,080	5,680	24 2 0			
	Total	3,275	78,810	30,689	47,683	6,646	1,79,879	62,345	3,23,715	3 16 11			
	Total for 1891-92	3,304	77,612	46,176	49,156	5,871	1,76,680	64,151	3,22,014	4 6 6			

NOTE.—Percentages in column 14 include boys in private institutions.

\* According to Director of Public Instruction ... 39,001  
† Ditto ditto ditto ... 45,451  
‡ Ditto ditto ditto ... 3,42,877

Besides the pupils shown in the above tables, 9,745 attended private institutions, but the state of primary education in the division generally is deplorably backward.

The following comments made by the Commissioner are quoted:—

It will be observed that the cost of education per head of pupil is generally higher in the Sonthal Parganas than in any other district in the Division, and it is therefore satisfactory to notice that the percentage of boys at school is higher there than in the two adjoining districts of Bhagalpur and Purnea. Malda, as most like Bengal, is most forward. The backwardness of the interior of Bhagalpur, when considered with the zeal shown in the cause of education at head-quarters by two large zamindars, has always been a puzzle to me, and I am disposed to think Government might divert some of the Provincial revenues, now spent in the Sonthal Parganas, to bring the northern tracts of this Division more forward. The District Boards do all they can with the limited funds placed at their command.

As regards the expenditure of Municipalities on education, it is noticeable that in all districts, except Monghyr, the expenditure on high and middle education is greater than the expenditure on primary education, to which, except in

Monghyr, very inadequate assistance is given. The Officiating Lieutenant-Governor regrets to notice that no attention appears to have been paid to the remarks made in the Resolution on last year's Report under this head.

The total number of girls under instruction was 4,594 against 4,264 in the previous year, showing an increase of 330 girls.

The percentage of Muhammadan pupils to the school population is, as observed in some other divisions likewise, higher than the percentage of the Muhammadan male population to the whole male population of the Division. The number of aboriginal pupils rose from 5,121 to 6,254, which is even higher than the number at school in 1890-91. The following figures relating to the Sonthal Parganas are of interest:—

Of 5,759 aboriginal pupils in the Sonthal Parganas, 5,575 were Sonthals, 178 Paharias, 3 Dhangars, and 3 Kols. Of 170 schools for Sonthal education, stipends were given to 108 schools from the special Damin-i-koh grant of Rs. 7,500, called the Sonthal Education Fund, of which Rs. 6,419 only could be spent. Taking the population and the children of school-going age into consideration, there was one Sonthal in every 14·7 and one Paharia in every 52·7 at school.

#### Dispensaries and Hospitals.

20. The following table shows the working of the dispensaries and hospitals in the division:—

DISTRICT.	Number of dispensaries.	INCOME FROM—					DAILY AVERAGE PATIENTS		Ratio per cent. of out-door patients to total population.
		Government.	District Board.	Municipality.	Subscriptions.	Total.	In-patients.	Out-patients.	
1	2	3	4	5	6	7	8	9	10
		Rs.	Rs.	Rs.	Rs.	Rs.			
Monghyr ...	4	198	2,630	5,050	3,638	11,176	86·69	243·44	1·57
Bhagalpur ...	7	325	1,751	3,922	5,672	10,670	40·12	228·25	1·25
Purnea ...	5	70	1,151	3,579	1,437	6,237	21·94	96·03	·65
Malda ...	4	106	600	1,734	4,344	6,784	17·45	165·08	2·75
Sonthal Parganas	13	1,708	...	2,856	8,341	12,905	21·48*	103·43	2·45

This does not include figures for Benagoria Dispensary.

In-door patients are far more numerous in Monghyr than elsewhere. The proportion of out-door patients to the total population was greatest in Malda and least in Purnea, where it is only ·65 per cent. A dispensary, however, in the latter district, which is maintained by the Darbhanga Raj, is not included in the foregoing statement. Next to Malda came the Sonthal Parganas, which are well provided with dispensaries, there being six public and seven private institutions. The Lady Dufferin Hospital at Bhagalpur is still maintained.

21. The interest of the members of the District and Local Boards in their Local Self-Government Institutions. work does not appear to increase. The general apathy in this respect is illustrated by the following remarks taken from the Commissioner's report which refer to the Bhagalpur district:—

The proportion of attendance at meetings was worse than in the preceding year in all the Boards, and the number of meetings adjourned for want of a quorum is lamentable. At Banka alone does the Board attempt to do its duty. Of the District Board the Collector writes—

“One or two members may be depended upon to offer good advice, but the majority take the least possible interest in what goes on, and attend as few meetings as possible. The Committees of the Board continue to do useful work, but the work which the Chairman does not do is falling into the hands of a few members. This, I believe, is a feature of county work in England also. The difference lies in this—that occasionally a Board at Home will wake up and exert itself to understand and grapple with a big question, and in the intervals of these efforts members keep themselves informed by papers of what is being done. In Bengal the record of our business in English renders this impracticable to a large majority, and they drift on, content with the honour of a seat and an occasional journey to head quarters, connected often as much with private business as with a meeting. District officers, however, though disheartened with this apathy, can at least thank Boards generally for a large measure of trust in what is done in their name, and a few public-spirited men for excellent advice and work, done often at some sacrifice of private business and convenience.”

Among the municipalities, those of Monghyr, Jamalpur, Deoghur and Sahibganj are well spoken of; the latter especially is making great progress under the lead of Mr. Savi.

22. In Bhagalpur there is a certain amount of religious antagonism between the Sunni and Shiah sects of the Muhammadans and between Hindus and Muhammadans.

State of public feeling.

The cattle-killing question is less prominent here than further west. The district is visited by travelling preachers from time to time of both religions, but their preaching had during the year under review produced no considerable manifestation of public feeling.

The Collector of Purnea says that there is no public feeling in his district upon subjects of a general nature.

In the Sonthal Parganas the only matter on which the Deputy Commissioner observes the existence of much feeling is the system of cooly-recruiting, which continues to excite bitter feeling among the people.

The Division as a whole is very peaceful. No newspaper is published in it, though presses exist in three districts; and the Calcutta papers have a very limited circulation among the more highly educated classes only.

23. The Collector of Bhagalpur bears favourable testimony to the conduct of the zamindars of the district generally. In Sapaul and Madhipura, Maharaja Harbullab Narain Singh,

Conduct of zamindars.

C.I.E., the Banaili family, Babu Ganpat Singh, Babu Janardan Singh and other zamindars, gave alms or provided funds for relief works and earned thereby the thanks of the Lieutenant-Governor. The Raja of Barwari, the Panchgachia Zamindar and Babu Rash Behari Mandal, liberally postponed their rent demands. In Monghyr the Maharaja of Gidhour and the Raja of Khaira are reported to be always ready to co-operate with the district authorities. In Purnea the late Nawab Atta Hossein of Khajra was liberal and popular. But in some zamindari in this district there are indications that the relations between landlord and tenant are somewhat strained. In the Sonthal Parganas the Raja of Pakour, the Zamindar of Moheshpur and the Ghatwals of Bamangaon and Sarath and Mr. Maling Grant are favourably spoken of.

24. The Lieutenant-Governor desires to thank Mr. Quinn for his efficient administration of the division throughout the year.

Conclusion.

The Commissioner's report on the character of officers will be communicated to the Appointment Department. Among the Collectors, Messrs. Wace, Marindin and Carstairs, and among the other officers, Messrs. Duke, Wheeler, Smith and Babu Chandra Narain Singh have merited special mention.

By order of the Lieutenant-Governor of Bengal,

M. FINUCANE,

*Offg. Secretary to the Govt. of Bengal.*

**RESOLUTION ON THE TRIENNIAL REPORT OF THE SANITARY COMMISSIONER FOR BENGAL ON THE WORKING OF THE VACCINATION DEPARTMENT DURING THE THREE YEARS 1890-91, 1891-92, AND 1892-93.**

**MUNICIPAL DEPARTMENT—SANITATION.**

*Calcutta, the 7th November 1893.*

RESOLUTION No. 3391-S.

READ—

The Triennial Report of the Sanitary Commissioner for Bengal on the working of the Vaccination Department during the three years 1890-91, 1891-92, and 1892-93.

This is the second triennial report on the working of the Vaccination Department in Bengal, prepared under instructions contained in the Resolution of the Government of India, Home Department, No. 28-1579-95, dated 15th July 1887. It is submitted by Surgeon-Captain H. J. Dyson, Officiating Sanitary Commissioner, Bengal, in the absence, on furlough, of the permanent incumbent, Surgeon-Lieutenant-Colonel W. H. Gregg. The latter officer was in charge of the Department during the whole period under review, and Surgeon-Captain Dyson therefore labours under the disadvantage of having to write a report on operations which were carried on in a province of which he had no previous knowledge, and during a period when he saw nothing of the working of the Department.

2. The Lieutenant-Governor regrets that he is again compelled to notice the great unpunctuality with which this report has been submitted, for it was due to Government on the 15th June, but was not received until the 10th October. The explanation given of this delay is that, under the arrangements recently introduced, the returns had for the first time to be submitted by Civil Surgeons and other officers new to the work, and that much difficulty was experienced in obtaining the correct figures. The Lieutenant-Governor is aware that there have been exceptional difficulties in collecting the materials for the present report, but he observes that in 1891 and 1892 also the report was submitted after the due date, though not so late as in the present case. His Honour must insist on future reports being submitted without fail on the due date, and desires that the Sanitary Commissioner will forward for his information the names of those officers who were responsible for the delay under notice.

3. In the closing paragraph of last year's Resolution, some account was given of the reorganization of the Vaccination Department, which was finally sanctioned by the Government of India in Home Department letter No. 64, dated 26th March 1892. It is therefore only necessary to say that the main feature of the scheme consisted in the transfer of the executive supervision of the work of vaccination to Civil Surgeons, who were appointed *ex-officio* Superintendents of Vaccination in their respective districts. The various other changes in the subordinate and inspecting staff involved in the scheme may be gathered from the statement below, which shows the strength of the working staff in each of the past three years. It is as yet too soon to come to a definite opinion on the success of these changes, but Dr. Dyson points out as a defect in the scheme that, while Civil Surgeons are unable to inspect the remote portions of their districts, the small number of three Deputy Sanitary Commissioners is insufficient to supplement their deficiencies in this respect. It is possible that some modifications of the original proposals may eventually be required in this direction, but it seems too early yet to make any change: the Sanitary Commissioner is requested to pay special attention to this question, and to mention it in next year's report, unless he finds it necessary to make a definite recommendation in the meantime. Apart from this question, however, the increased number of operations that have been performed during the year may be fairly ascribed, in some measure at least, to the effect of the new scheme, the success or failure of which appears to depend largely on the energy or apathy of the Civil Surgeon of the district.

4. The strength of the supervising and operating staff during each of the three years under review is exhibited in the following statement:—

	Year.	INSPECTING STAFF.						OPERATORS.				
		Number of Super-Intendents.	Number of Deputy Superintendents.	Number of Inspectors.	Number of Sub-Inspectors.	Number of Head Vaccinators.	Total number of Inspecting officers.	Vaccinators.		Apprentices.		Total number of operators.
								Government or paid.	Licensed.	Government or paid.	Licensed.	
Calcutta ... ..	1890-91	1	1	4	...	2	8	34	...	4	...	42
	1891-92	1	1	4	...	2	8	31	...	7	...	38
	1892-93	1	1	4	...	2	8	31	...	4	...	35
Provincial rural areas ...	1890-91	6	13	115	...	13	147	107	1,631	10	594	2,342
	1891-92	6	13	119	...	13	151	92	1,041	9	696	2,438
	1892-93	46 and 3 D.S.Cs.	1	51	135	2	245	69	1,754	10	864	2,717
Municipal Municipalities and Dispensaries.	1890-91	...	...	...	...	...	...	210	5	...	...	254
	1891-92	...	...	...	...	...	...	250	3	...	...	253
	1892-93	...	...	6	...	...	6	285	2	...	...	287
Total of above	1890-91	7	14	119	...	15	155	304	1,636	14	594	2,638
	1891-92	7	14	123	...	15	159	382	1,644	16	696	2,738
	1892-93	47 and 3 D.S.Cs.	2	61	135	11	259	405	1,766	14	864	3,039

The increase in the number of Superintendents and Sub-Inspectors and the decrease in that of Deputy Superintendents and Head Vaccinators in 1892-93 as compared with the two previous years is due to the changes in the Department described in the last paragraph.

5. The total number of vaccinations and the average number performed by each operator during the past three years have been as follows:—

TOTAL NUMBER OF VACCINATIONS PERFORMED.					AVERAGE NUMBER OF OPERATIONS PER MAN.				
1890-91.	1891-92.	1892-93.	Average of 1890-93.	Average of 1887-90.	1890-91.	1891-92.	1892-93.	Average of 1890-93.	Average of 1887-90.
1,833,978	1,641,085	1,836,411	1,770,492	1,790,098	605	599	603	631	719

In last year's Resolution the Lieutenant-Governor expressed his opinion that none of the reasons given for the marked falling off in the number of operations were entirely satisfactory. The figures for the year under report confirm the opinion then expressed, for neither the material condition nor the health of the people have been much better in 1892-93 than in the year previous, yet the total number of operations during 1892-93 increased by 195,323. Whatever the cause of the falling off was in 1891-92, it would have been possible to hope that the recovery in the year under report would be permanent owing to the closer interest and more effective supervision that can now be exercised by Civil Surgeons, had it not been that this influence has been exerted in a very unequal manner in different districts. The statement in paragraph 5 of the report, which gives the number of operations in each district, shows great fluctuations from year to year in the same district, and extraordinary variations between districts believed to be not dissimilar in regard to population and general characteristics. The annual average of vaccinations, for instance, during the three years 1890-93 was in Jessore 26·6 per thousand of the population, and in the next district, Backergunge, only 16·3. Saran, again, has 26·7 and Champaran 17·5, and Pabna shows 34·8 to the 27·4 of Bogra.

6. The figures referred to above are those of total vaccinations in the past three years, embracing persons of all ages; but the Officiating Sanitary Commissioner has given a useful table showing for the year 1892-93, i.e., since the reorganisation of the department was carried out, the extent to which the infants under one year of age were vaccinated in each district. The total number of infants of this age in the Province estimated to be available for vaccination in 1892-93 was 2,546,670, of whom 319,584, or 125·49 per mille, were successfully vaccinated. The Darjeeling and Lohardaga districts head the list with 544·73

\* Degree of protection afforded.

and 528·1 successful operations respectively, out of every thousand of the available infant population. Malda follows far behind with 397·76 per mille. At the bottom of the list we find Puri, Cuttack and the Chittagong Hill Tracts, with less than 10 per mille. The Officiating Sanitary Commissioner says in regard to those districts in which a falling off in the number of operations has occurred: "Generally speaking, it is to be ascribed to neglect or indifference on the part of the supervising officers. At all events, the excuse that is very generally made of paucity of subjects, in consequence of previous activity, cannot be accepted, for \* \* \* \* \* with the exception of Darjeeling, the Sonthal Parganas, Dacca, Nadia, Faridpur, and Tippera, in no district did the total number of vaccinations come up to the estimated number of infants available for vaccination." A further consideration of the figures gives ground for more general deductions, for it is clear that in districts inhabited by non-Aryan people the objection to vaccination is not strong, for with the exception of Malda the whole of the first eight districts answer to this description, while the well-known hostility of the Uriyas to vaccination is demonstrated by the fact that with the exception of Balasore all the districts of this Division, which are almost entirely Hindu, are quite at the bottom of the list.

7. In regard to the number of vaccinations per mille of total population during 1892-93, Bengal is far behind the other provinces of Upper India, for while the provincial average of Bengal is 25·14 per mille, the figures for the Punjab are 39·7, for Assam 39·18, and for the Central Provinces 36·49, the North-Western Provinces lagging behind with 23·79. The provincial reports, with the exception of that from the Central Provinces, do not afford statistics for a calculation of this kind in regard to the proportion of successful vaccinations per mille of infant population; but in the Central Provinces the ratio is more than six times as high as in Bengal, being 790·25 per mille as against 125·49.

8. During the three years under review each paid vaccinator performed on an average 1,302 operations a year, and each licensed vaccinator 637, as compared with 1,578 and 671 respectively during the previous triennial period. The reason for the falling off in the average work of licensed vaccinators is said to be that there are now a larger number of apprentices employed, who, not being able to work as quickly as the more experienced men, reduce the general average. This may partially explain the fact, but there must be some further cause; for an examination of the figures shows that, even if the same number of apprentices had been employed in the earlier as in the later period, the number of operations remaining the same, the average work of each operator would still have been greater in the first triennial period. Dr. Dyson suggests, with some show of reason, that the difference between the average number of operations performed by a Government vaccinator and by a licensed vaccinator is due to the fact that the former operates free of charge in new areas where there is no difficulty in getting subjects, and there is no doubt that the fee of 2 annas charged by the licensed vaccinator is strongly resented by most of those from whom it is demanded, since they consider it the insult of spoliation added to the injury of unnecessary pain.

9. During the year 1892-93 an average of 1,172 operations was performed by each paid vaccinator, which is 130 less than the triennial average. The falling off is partially explained by the fact that the seven vaccinators appointed for the Chittagong Hills Tracts, which were only brought under the control of the Sanitary Commissioner in February 1893, were unable, owing to the strong opposition they experienced, to attain to a higher average than 62 operations each. The average during the same year for each licensed vaccinator was about half, viz., 615.

10. These figures compare very unfavourably with the statistics for other provinces, for whereas in Bengal in 1892-93 the number of operations performed by each vaccinator of whatever class averaged only 632, the figures elsewhere were as follows:—Punjab 2,747, Central Provinces 1,837, North-Western Provinces 1,349, and Assam 927. Furthermore, the number of vaccinators bore the following ratio to every 100,000 of the population in each of the provinces quoted:—Assam 3·8, Bengal 3·7, Central Provinces 2·4, North-Western Provinces 1·7 and Punjab 1·4. These figures seem to show that the vaccinators in



Bengal and Assam did less work, man for man, than those in any other province, and lead to the inference that the outturn of work tends to be in inverse ratio to the relative number of operators.

11. The average cost of each successful operation during the three years

Cost of vaccination.				A.	P.
Assam	...	...	...	1	0½
Punjab	...	...	...	1	9
Central Provinces	...	...	...	2	0
North-Western Provinces	...	...	...	2	7
Bombay	...	...	...	3	0
Burma	...	...	...	4	2

amounted to 1 anna 6 pies, which apparently compares well with the cost in the other Provinces in India, as shown in the margin; but it is to be feared that the comparison is illusory, since a large number of the vaccinators in Bengal, viz., no less than 1,756 out of 3,039, are licensed vaccinators,

who are paid by fees taken from the people, while 878 others were unpaid apprentices, whose operations swell the total without any cost to the State: apprentices seem to be unknown in other provinces.

12. Four diagrams are given in the report to illustrate the death-rate from

Comparison between the death-rate from small-pox in each district and the proportion of protection.

small pox in each district as compared with the proportion of the population protected by vaccination during the last seven years. They lead to no very convincing deductions, probably because the phenomena recorded do not extend over a sufficiently long period. Puri and Cuttack, which in each year are well in the forefront of the list showing deaths from small-pox, are respectively eleventh and eighth from the bottom as regards protection: in these districts, however, all statistics are obscured by the annual concourse of pilgrims at Puri. Darjeeling, on the other hand, which is best protected, in no year shows a death-rate of more than 13 per mille of the population. It would be advisable in future to show the proportion of protection and the number of deaths from small-pox in one and the same diagram. In the present instance, moreover, the usefulness of the diagrams is much impaired by the fact that the districts are not shown in the same order in each.

13. The Officiating Sanitary Commissioner, as requested by Government,

Vaccination operations in Dacca Jail.

comments at some length on the result of certain vaccination operations in Dacca Jail. It appears that 3,465 prisoners were vaccinated, of whom 1,667 had been previously inoculated, 1,445 had been previously vaccinated, 197 had had small-pox, and 156 were unprotected. At first 2,719 operations were successful, and as an experiment 2,032 prisoners were again vaccinated, with the result that 1,303 cases took. Vaccination was also performed on 14 prisoners one month after their recovery from small-pox, with the result that six cases were successful. The Civil Surgeon of Dacca, in view of these results, suggests the necessity of frequent re-vaccination until susceptibility is stamped out. The gist of Dr. Dyson's reply is that if one attack of small pox does not necessarily confer immunity from a second attack, it is only reasonable that it should not necessarily render impossible a subsequent successful vaccination: still less will one successful vaccination necessarily prevent a second successful vaccination. Dr. Dyson quotes instances and statistics, which show conclusively that re-vaccination at the age of puberty practically grants complete immunity from small-pox, and he draws the conclusion that even, if continuous vaccination is theoretically correct, it is neither practicable nor necessary. He finally recommends that all school children of over ten years of age, and all Government employes, should bear the mark of successful re-vaccination. The first suggestion is less practicable than the second, which is akin to one which was made by Dr. Gregg in 1890, and again by Dr. Dyson in 1893, to the effect that, under the Factories Act (XV of 1881), all persons employed in factories should bear a similar mark. The proposal was brought to the notice of the Government of India in the annual report on the working of the Factories Act, and is under the consideration of Government in the General Department.

14. Vaccination is now practised throughout the Province: it is com-

Extent of vaccination.

pulsory in municipalities, but optional in rural areas, save in certain portions of Kangpur, Bhagalpur, the Sonthal Parganas and Tippera. The Officiating Sanitary Commissioner recommends that those sections of the Bengal Vaccination Act (V of 1880) should be introduced which, without rendering vaccination universally compulsory, make it punishable for individuals, who have been duly served with a notice, to refuse to undergo, or to allow their children to undergo, the



operation. But the Lieutenant-Governor, while he recognises that Bengal is lamentably backward in this as in other sanitary matters, and that nothing short of compulsion will bring vaccination up to what it ought to be according to European standards, hesitates to adopt a measure which, even in its modified shape, must excite opposition. Sir Antony MacDonnell is not prepared to force upon the people a general measure, the importance of which they do not yet recognise, and to which in many districts ancient prejudice renders them hostile: for the present the extension of the practice of vaccination must depend on the spread of intelligence and sanitary knowledge among the people, and the influence that can be exerted by the executive officials. It was chiefly with the object of strengthening this influence that the Department was lately reorganised and its supervision localized, and the Lieutenant-Governor prefers for the present to await the results.

15. The attitude of the people towards vaccination is described by the Attitude of the people. Officiating Sanitary Commissioner as one of passive acceptance, but in nearly every district there are sections of the community who openly or covertly refuse to submit to it, objecting not so much to vaccination in itself, as to the use of human vaccinifers who are usually of low caste, and to the payment of vaccination fees. The difficulty of realizing the fees, he says, is undermining the whole system of licensed vaccination in Bengal: it tends to make the vaccinators overcharge the unsuspecting, and leads them to operate only on those who can and will pay. On the other hand, he urges that the cost of free vaccination would be small, amounting in a district like Burdwan to some 600 or 700 rupees only, which the District Board could well afford, and as a matter of fact the District Board of Puri, in pursuance of Dr. Dyson's recommendations, have since the close of the year voted a sum of Rs. 850 for this purpose. The Lieutenant-Governor is well aware of the many claims that are made on the resources of the District Board, and is averse to local funds being unnecessarily drawn upon; but vaccination is a matter of the greatest public importance, and is one of the legitimate objects to which the District Fund may be applied, and he would therefore, speaking generally, have no objection to District Boards whose funds are in a flourishing condition making some donation for this purpose; but much will depend upon the manner in which this contribution is expended, and before the Lieutenant-Governor can express a confident opinion, he desires that the details of the suggestion should be worked out and separately submitted.

16. Lymph was obtained during the year from the Calcutta and Darjeeling depôts. The former has been in existence since 1882; the latter was established in 1891. In last year's Resolution some account was given of the operations at the new depôt, and also of the process of preserving lymph by an admixture of lanoline. This system was successfully continued throughout the year, and lymph can now be preserved so as to remain active for long periods and under various changes of temperature. One of the main objects of the establishment of these depôts has thus been successfully achieved, but without largely increasing the number of depôts and the expenditure on them, it is impossible to attain the further object of supplying a sufficient quantity of lymph during the working season to enable arm-to-arm vaccination and its attendant evils to be entirely abandoned. To compass this object, Dr. Dyson suggests the introduction of the Punjab and Central Provinces plan of vaccination direct from the calf. Under this system a calf is first inoculated with lanoline lymph, and from this calf all the children of the village, as well as calves from neighbouring villages, are vaccinated. These calves are returned to their own villages after vaccination, and when the lymph is ripe, a vaccinator proceeds to the village and vaccinates from the calves all the children as well as fresh calves from other villages. The operation causes the animals but little pain and no permanent injury, and as buffalo calves serve as well as cow calves, it is easy to avoid wounding any susceptibilities. Moreover, this system has this great advantage, that it obviates the sufferings to which arm-to-arm vaccination exposes the human vaccinator, and removes the objections urged by some to vaccination from low caste, or possibly unhealthy, children. The introduction of the scheme has been sanctioned tentatively in twelve districts during the approaching cold weather. Since the close of the

year Dr. Dyson has been making experiments in goat and sheep vaccination, the results of which will shortly be reported.

17. The Officiating Sanitary Commissioner urges the necessity of putting a stop to unlicensed vaccination, which he says does great harm by engendering a false sense of security among the persons operated on, by creating discontent among the licensed operators, and by discrediting the whole system in consequence of the indifferent manner in which the operations are performed. The recommendation is not new, having been pressed upon Government in 1890 and again at the commencement of the present year, and the Officiating Lieutenant-Governor is at one with his predecessors in thinking that it has yet to be shown that the evil has spread to any great extent, and that until this can be demonstrated there is no necessity to take any steps in the matter.

18. The Lieutenant-Governor regrets to observe that the duty of inspection has been inadequately performed during the year under review. Surgeon-Captain Alcock, of the Metropolitan and Eastern Bengal Circle, visited 84 villages and inspected 1,952 operations; Surgeon-Major Waddell, of the Northern Bengal Circle, visited 233 villages and inspected 3,305 operations; while the numbers for Assistant Surgeon N. N. Gupta are 715 villages and 7,569 operations. Dr. Alcock's time is said to have been much taken up with sanitary work, while Dr. Waddell was in bad health throughout the season. The amount of inspection done by Civil Surgeons varied exceedingly from district to district, as was perhaps to be expected during the first year in which the reorganization of the Department took effect, but there can hardly be adequate excuse for the extent of the deficiency in some districts. The Civil Surgeon of the 24-Parganas made no inspections whatever, and those of Howrah, Burdwan, Nadia, Tippera, Shahabad and Palamau inspected the results of less than 500 operations. It is clear that these officers have overlooked the orders of Government that their visits of inspection to dispensaries should be utilised for the purpose of supervising vaccination operations also. On the other hand, Dr. Cobb of Dacca and Drs. Nicholson and Bovill of Patna, in spite of heavy duties in the station, managed to get through a creditable amount of vaccination inspection, and Sir Antony MacDonnell is gratified to find that in addition nine other Civil Surgeons, whose names will be duly noted, have been selected for special commendation for their efforts to promote vaccination. The inspection work done by the District Inspectors and the Sub-divisional Sub-Inspectors has in most cases been ridiculously inadequate. The Lieutenant-Governor trusts that the earnest attention of Civil Surgeons and their subordinate inspecting officers will be drawn to this matter, for he is convinced that in the absence of compulsory vaccination, which for reasons stated above he is not prepared at present to introduce, the success or failure of the operations depends to a very large extent on the personal interest taken in them by the local officers.

19. The Lieutenant-Governor has to thank Dr. Dyson for an interesting and suggestive report, as well as for the zeal and energy he has thrown into his work, both as Superintendent of Vaccination and Sanitary Commissioner, during his deputation to Bengal.

By order of the Lieutenant-Governor of Bengal,

J. A. BOURDILLON,

*Offg. Secy. to the Govt. of Bengal.*

**CONTRIBUTION MADE BY THE MAHARAJA OF DINAJPUR TOWARDS  
THE CONSTRUCTION OF A RESIDENCE FOR THE FEMALE  
DOCTOR ATTACHED TO THE WOMEN'S HOSPITAL  
IN THAT DISTRICT.**

No. 3379Mod., dated Calcutta, the 6th November 1893.

From—J. A. BOURDILLON, Esq., Officiating Secretary to the Government of Bengal,  
Municipal Department,

To—The Commissioner of the Rajshahi Division.

I AM directed to acknowledge the receipt of your memorandum No. 640Jct., dated 20th October 1893, forwarding for information a copy of a letter from the Magistrate of Dinajpur, reporting an act of liberality on the part of the Maharaja of Dinajpur in having defrayed the entire cost, amounting to Rs. 2,700, of the residence of the female doctor attached to the Women's Hospital in that district, and in having contributed the sum of Rs. 1,000 for the hospital building itself.

2. In reply, I am directed to request that you will be so good as to convey to the Maharaja the thanks of His Honour the Lieutenant-Governor for his public spirit and liberality. The correspondence will be published in the *Calcutta Gazette*.

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 4th November, 1893.

No.	District and date of return,	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL.</b>			
BURDWAN DIVN.	1 Burdwan Nov. 4, '93	Nil	Weather—still hot in day, cooler at night. Prospects of <i>aman</i> rice crop continue good. Lands being prepared for <i>rabi</i> crops. Prices of common rice:— Srs. Burdwan ... 12 to 14 Kalna ... 9 to 13 Katwa ... 14½ Raniganj ... 12½ } per rupee.
	Kalna ...	Nil	
	Katwa ...	Nil	
	Raniganj ...	Nil	
	2 Bankura „ 4, '93	Nil	Weather—generally fair. <i>Aman</i> paddy doing well. <i>Rabi</i> is being sown. Water and fodder sufficient. Common rice is selling at 15½ seers per rupee at Sadar and 17 seers at Vishnupur.
	3 Birbhum „ 4, '93	Nil	Weather—seasonable. Harvesting of <i>aus</i> paddy commenced. <i>Aman</i> looks well. Price of common rice 10 to 16 seers per rupee.
	Rampur Hat ...	Nil	
	4 Midnapore „ 4, '93	Nil	A little rain at Contai; none elsewhere. Weather clear and cold except in the middle of the day. Prospects of crops excellent except in a few small areas where it has been completely destroyed. Prices of common rice:— Srs. Sadar ... 12 Contai ... 13 Tamluk ... 13 Ghatal ... 13 } per rupee.
	5 Hooghly „ 4, '93	Nil	Weather—seasonable. <i>Aus</i> paddy harvested. <i>Aman</i> paddy in ear, and doing well. Prospects of sugarcane good. Lands being prepared for <i>rabi</i> crop, and sowing has commenced in some places. Prices of common rice:— Srs. Sadar ... 11 to 12 Serampore ... 10 to 11 Jahanabad ... 11 to 12 } per rupee.
	Serampore ...	Nil	
	Jahanabad ...	Nil	
	6 Howrah „ 4, '93	Nil	Weather—seasonable. <i>Aus</i> harvest finished. <i>Aman</i> crop doing well. Fodder and water sufficient. Price of common rice 10 to 11 seers per rupee.
	Ulubaria ...	Nil	
	7 24-Parganas „ 4, '93	Nil	Weather—seasonable. Prospects of crops fair except in the Bankipur thana. Ploughing and sowing of <i>rabi</i> crops going on.
PRESIDENCY DIVN.	8 Nadia „ 4, '93	Nil	Weather—slightly cool in the morning, but hot during day. Prospects of crops fair. Water and fodder sufficient.
	Kushtia ...	Nil	
	Meherpur ...	Nil	
	Chundama ...	Nil	
	Ranaghat ...	Nil	
	9 Khulna „ 4, '93	Nil	Weather—fine and cooler. Prospects of <i>aman</i> good. <i>Rabi</i> crops have been sown.
	Bagerhat ...	Nil	
	Satkhira ...	Nil	
	10 Jessore „ 4, '93	Nil	Weather—seasonable. Prospects of <i>aman</i> fair. Sowing of <i>rabi</i> crops going on. No cattle-disease. Supply of fodder and water sufficient. Price of rice stationary.
	Jhenida ...	Nil	
	Magura ...	Nil	
	Narail ...	Nil	
	11 Bangaon „ 4, '93	Nil	Weather—nights getting cool. Sowing of <i>rabi</i> crops continues, and that of indigo has commenced. Prospects of <i>aman</i> crop appear to be good. Fodder sufficient for cattle. Common rice selling at 12 seers per rupee.
	Murshidabad ...	Nil	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL—consolid.</b>			
<b>CHITTAGONG DIVN.</b>	12 Chittagong Nov. 4, '93	0·03	Weather—seasonable. Early <i>aman</i> in ear. Prospects fair. Lands being ploughed for <i>rabi</i> crops. Prices steady. Condition of cattle generally good. Supply of fodder sufficient.
	13 Noakhali „ 4, '93	Nil	Weather—seasonable. Lands are being ploughed for <i>rabi</i> crops. The average damage done to crops by the cyclone and inundation of the 22nd October is about 2 annas except in Compaunganj, Hatia, and some parts of Sudharam, where the damage is estimated from 4 to 8 annas. Crops are maturing in some places. Price of rice stationary.
	14 Tippera „ 4, '93	Nil	Weather—seasonable. Prospects of <i>aman</i> good except in Brahmanbaria subdivision, from which extensive damage to crops by insects is reported.
	15 Chittagong Hill Tracts. „ 3, '93	Nil	Weather—cloudy during the first part of the week; foggy in the morning during the latter part; hot at noon throughout the week. Every indication of cold weather. Gathering of late <i>jum</i> paddy is nearly over and reaping of early plough-paddy has commenced here and there. Plough-paddy suffered a little from the storm of the 22nd October. Common rice sells at 8 seers per rupee. No cattle-disease reported.
	16 Dacca „ 4, '93	Nil	Weather—seasonable. Harvesting of <i>aman</i> paddy commenced. Prospects favourable. Sowing of mustard, <i>mug</i> , and <i>kalai</i> nearly finished. Common rice selling from 7 to 11 seers per rupee. Fodder available with difficulty. No cattle-disease except in Narayanganj subdivision.
<b>DACCA DIVN.</b>	17 Faridpur „ 4, '93	Nil	Weather—bright and cool. On high grounds early <i>aman</i> harvest and sowing of winter crops continue. Outturn of rice on high lands fair, on low lands very poor. Rice 10 to 12 seers per rupee. Fodder sufficient. No cattle-disease now.
	Goulundo ...	Nil	
	Madaripur ...	Nil	
	18 Backergunge „ 4, '93	Nil	Weather—seasonable. Prospects of standing crops fair. Common rice sells from 8 to 10 seers per rupee. Fodder and water sufficient.
<b>RAJSHAH DIVN.</b>	19 Mymensingh „ 4, '93	0·81	Weather—seasonable. Prospects of standing crops good. Common rice selling at 9 to 9½ seers per rupee. Condition of cattle good. Supply of fodder sufficient except in some places in the Kishorganj subdivision.
	20 Dinajpur „ 4, '93	Nil	Weather—cool. The prospects of the standing crops could not be better.
	Thakurgaon ...	Nil	
	21 Rajshahi „ 4, '93	Nil	Weather—seasonable. Prospects of standing crops reported to be good everywhere except in Bornigam thana. Steeping of jute going on. Condition of cattle good. Water and fodder-supply ample. Rice selling from 9½ to 13 seers per rupee.
	Nator ...	Nil	
	Naugaon ...	Nil	Weather—cool. Prospects of <i>aman</i> and sugarcane good. Cultivation of <i>rabi</i> crops is proceeding. Average price of rice 10 seers per rupee.
	22 Rangpur „ 4, '93	Nil	
	Nilphamari ...	0·05	
	Gaibanda ...	Nil	Weather—fair. <i>Aman</i> progressing very favourably. Prospects of winter crops good. Common rice sells at 11½ seers per rupee. Fodder and water sufficient.
	23 Bogra „ 4, '93	Nil	
	Sherpur ...	Nil	
	Naukhila ...	Nil	Weather—seasonable. Prospects of <i>aman</i> good. <i>Khesari</i> , mustard, gram, hemp, and peas are being sown. Common rice selling at Rs. 4-4 to Rs. 4-10 per maund in the Surajganj subdivision, and at 9½ seers per rupee in the Pabna subdivision. Fodder and water-supply sufficient.
	24 Pabna „ 4, '93	Nil	
	25 Darjeeling „ 4, '93	Nil	
	Siliguri ...	Nil	Weather—seasonable: bright and cool. In the hills:— <i>Aghani dhan</i> coming to perfection. Potatoes, <i>marua</i> , <i>kalai</i> , <i>torae</i> , peas, and <i>phaphur</i> progressing favourably. Lands being prepared for wheat and barley. In the Terai:— <i>Haimanti dhan</i> ripening. <i>Kalai</i> and <i>til</i> doing well. Prices of coarse rice:—
<b>JALPAIGURI DIVN.</b>	26 Jalpaiguri „ 4, '93	Nil	<div style="text-align: right;">Srs.</div> <div style="display: flex; justify-content: flex-end;"> <div style="text-align: center;"> Hills     ...     ...     ...  Terai     ...     ...     ... </div> <div style="margin-left: 10px;"> 9 11 } per rupee. </div> </div>
			Weather—seasonable: bright and cool. Prospects of <i>aman</i> good. Lands are being prepared for tobacco. <i>Bhadai</i> rice sells at 12 seers per rupee. No cattle-disease. Fodder sufficient.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.									
BIHAR.												
BHAGALPUR DIVN.	27 Monghyr Begusarai Jamui Nov. 4, '93 ...	Nil Nil 0.29	Weather—fair and seasonably cool. Prospects of winter rice very promising. <i>Rabi</i> sowing is being delayed in some places owing to the soil being too moist. <i>Kurthi</i> , indigo and sugarcane doing well. Cattle-disease towards Nawadih and Sikandra. Fodder and water sufficient. Prices of common rice:— <table><tr><td></td><td>Srs.</td></tr><tr><td>Sadar ... ..</td><td>12 to 15</td></tr><tr><td>Begusarai ... ..</td><td>12 to 14</td></tr><tr><td>Jamui ... ..</td><td>14</td></tr></table> } per rupee.		Srs.	Sadar ... ..	12 to 15	Begusarai ... ..	12 to 14	Jamui ... ..	14	
		Srs.										
	Sadar ... ..	12 to 15										
	Begusarai ... ..	12 to 14										
	Jamui ... ..	14										
	28 Bhagalpur Banka Mudhipura Supaul .. 4, '93 ...	Nil Nil Nil Nil	Weather—seasonable. Prospects of winter rice excellent. <i>Rabi</i> sowings going on. Common rice 15 seers 2 chitaks per rupee.									
	29 Purnea Kishanganj Araria .. 4, '93 ...	Nil Nil Nil	Weather—fine, getting cold. Paddy very promising. <i>Kurthi</i> and sugarcane doing well. <i>Rabi</i> sowings progressing favourably. Fodder and water plentiful. Rice decidedly cheapening.									
	30 Malda ... ..	... ..	Report not received.									
	31 Sonthal Parganas Deoghur Godda Jamtara Pakur Rajmahal .. 4, '93 ...	Nil Nil Nil 0.03 Nil Nil	Weather—seasonable. Sometimes cloudy in the day. Rice and other standing crops doing well. Harvesting in progress in uplands. <i>Rabi</i> seeds still being sown. Fodder and water-supply sufficient.									
	32 Patna Barh Bihar Dinapore .. 4, '93 ...	Nil Nil Nil Nil	Weather—clear and getting cooler day by day. Prospects of paddy excellent and those of <i>rabi</i> equally good. Poppy sowing has commenced. Prices of common rice:— <table><tr><td></td><td>Srs.</td></tr><tr><td>Sadar ... ..</td><td>17</td></tr><tr><td>Barh ... ..</td><td>13</td></tr><tr><td>Bihar ... ..</td><td>17</td></tr><tr><td>Dinapore ... ..</td><td>15½</td></tr></table> } per rupee.		Srs.	Sadar ... ..	17	Barh ... ..	13	Bihar ... ..	17	Dinapore ... ..
	Srs.											
Sadar ... ..	17											
Barh ... ..	13											
Bihar ... ..	17											
Dinapore ... ..	15½											
33 Gaya Nawada Jahanabad Aurangabad .. 4, '93 ...	Nil Nil Nil Nil	Weather—occasionally cloudy, but cool at night. Prospects of paddy crop good. <i>Rabi</i> sowings going on. Fodder and water-supply ample. Prices of common rice:— <table><tr><td></td><td>Srs.</td></tr><tr><td>Sadar ... ..</td><td>14½</td></tr><tr><td>Aurangabad ... ..</td><td>14½</td></tr><tr><td>Jahanabad ... ..</td><td>15</td></tr><tr><td>Nawada ... ..</td><td>18</td></tr></table> } per rupee.		Srs.	Sadar ... ..	14½	Aurangabad ... ..	14½	Jahanabad ... ..	15	Nawada ... ..	18
	Srs.											
Sadar ... ..	14½											
Aurangabad ... ..	14½											
Jahanabad ... ..	15											
Nawada ... ..	18											
34 Shahabad Buxar Bhabua Sasaram .. 4, '93 ...	Nil Nil Nil Nil	Weather—seasonable. Prospects of rice crop continue favourable. <i>Rabi</i> sowings in progress.										
35 Darbhanga .. 4, '93	Nil	Weather—fair and getting cold. Prospects of winter rice continue good except in south-east of district where some damage was done by recent floods. <i>Rabi</i> sowings in progress. Planting of tobacco and <i>alua</i> finished in places. Fodder for cattle sufficient. Prices have slightly fallen.										
36 Muzaffarpur .. 4, '93	Nil	Weather—fair. Rice crop doing well. <i>Rabi</i> sowings in progress. Cattle-disease prevails to some extent in some villages in the Bela outpost. Fodder and water abundant.										

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
BIHAR—conold.			
PATNA DIVISION—conold.	37 Saran Nov. 4, '93	Nil	Weather—seasonable. State and prospects of crops very good. Fodder and water plentiful. Prices of common rice :—  Chapra                   ...                   ...                   Srs. C. Siwan                   ...                   ...                   14 8 Gopalganj           ...                   ...                   15 8 } per rupee. 

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 7th November, 1893.

M. FINUCANE,  
Offg. Secy. to the Govt. of Bengal.

## PRICES-CURRENT (retail) of Food-gr

Number.	DISTRICTS.	WHEAT.									BARLEY.			RICE, BEST SORT.							
		Present return.			Next preceding return.			Corresponding return of last year.			Present return.			Next preceding return.			Corresponding return of last year.				
		S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.		
BURDWAN DIVISION.	1	Burdwan	...	13	4	13	5	12	10	...	...	...	10	0	9	6	9	4	...		
	2	Bankura	...	14	8	14	8	12	8	...	...	...	9	6	10	0	9	4	...		
	3	Birbhum	...	12	0	12	0	10	4	...	...	...	11	0	10	8	9	12	...		
	4	Midnapore	...	11	0	11	0	11	8	...	...	...	10	0	10	0	9	8	...		
	5	Hooghly	...	13	0	13	0	12	0	13	0	13	5	8	0	8	0	8	0		
	6	Howrah	...	...	...	...	...	...	...	...	...	...	9	4	8	14	8	14	...		
PRESIDENCY DIVISION.	7	Calcutta	...	12	4	12	0	11	1	16	7	16	6	15	3	7	2	7	1	8	0
	8	24-Parganas	...	13	4	13	4	11	4	16	0	16	0	16	0	7	0	7	0	8	0
	9	Nadia	...	14	3	14	3	11	13	...	...	17	12	8	0	8	0	9	6	...	
	10	Khulna	...	...	...	...	...	...	...	...	...	...	8	0	8	0	10	0	...		
	11	Jessore	...	10	8	11	8	11	0	13	4	...	...	8	8	8	8	9	0	...	
	12	Murshidabad	...	14	0	13	0	12	0	...	...	...	...	9	8	9	8	9	0	...	
CHITTAGONG DIVISION.	13	Chittagong	...	10	0	10	0	...	...	...	...	...	8	8	8	0	9	0	...		
	14	Noakhali	...	...	...	...	...	...	...	...	...	...	7	0	8	0	7	8	...		
	15	Tippera	...	9	12	9	12	10	0	...	...	...	...	7	8	7	8	8	0	...	
	16	Chittagong Hill Tracts.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
DACA DIVISION.	17	Dacca	...	13	0	13	0	...	16	0	16	0	...	8	0	7	0	7	8	...	
	18	Faridpur	...	15	0	15	0	10	0	18	0	18	0	...	8	0	8	0	8	0	...
	19	Backergunge	...	...	...	...	...	...	...	...	...	...	8	0	8	0	9	0	...		
	20	Mymensingh	...	9	8	9	8	9	8	...	...	...	7	0	7	0	6	0	...		
RAJSHAH DIVISION.	21	Dinajpur	...	15	10	15	10	11	4	12	0	12	0	15	12	9	8	9	0	9	0
	22	Rajshahi	...	15	12	15	12	12	0	24	0	18	12	16	8	8	4	8	4	9	0
	23	Rangpur	...	14	0	13	8	11	8	14	0	...	...	8	7	8	8	0	...		

KANONI OR KANON, CHHOLA, KADALAY, ITALIAN MILLET, OR HUNARA. (Setaria italica.) (Cenchrus ciliaris.)

Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
...	...	...	...	...	...

S. Ch. S. Ch. S. Ch. S. Ch. S. Ch. S. Ch. S. Ch.	20 0	20 0	15 0	16 13	10 4	14 4	18 0	18 0	13 8	14 8	13 0	14 0	14 0	13 14
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8 12	8 12	9 12	14 0	14 0	14 5	8 0	8 0	7 0	20 0	20 0	14 0	22 13	22 13	15 4	11 0	12 0	10 8	18 0	17 0	12 0	19 0	19 0	15 0
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...	...	...	11 8	11 0	11 4	...	...	...	11 8	11 8	8 0	...	...	...	11 0	11 0	11 0	...	...	...	...	...	...
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...	...	...	13 0	13 0	...	...	...	...	13 0	13 0	12 0	...	...	...	13 5	13 5	12 5	...	...	...	...	...	...
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...	...	...	13 4	13 0	13	...	...	...	19 12	21 0	15	...	...	...	17 0	10 8	12	...	...	...	...	...	...
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- A In the subdivisions the retail prices of salt per rupee are:—Kalna 10 seers, Katwa 10½ seers, a  
 B At Vishnupur the retail price of salt is 10 seers per rupee.  
 C At Rampur Hat the retail price of salt is 10½ seers per rupee.  
 D In the subdivisions the retail prices of salt per rupee are:—Contai 9 seers, Tamluk 10 seers, and Ghatal 10 seers 7 chittaks.  
 E In the subdivisions the retail prices of salt per rupee are:—Serampore (at Bhadravwar) 10½ seers and Jahanabad 10 seers 10 chittaks.  
 F At Ulubaria the retail price of salt is 11 seers per rupee.  
 G In the marts in the interior of the district the retail prices of salt per rupee are:—Chetla hat 11 seers 10 chittaks, Magra hat 10 seers 10 chittaks, Baduria 11 seers, Barasat 10 seers 10 chittaks.  
 H In the subdivisions the retail prices of salt per rupee are:—Kushtia (Bahadurkhal) 10½ seers, Chudanga 10 seers, Meherpur 11 seers, and Ranaghat 9 seers.  
 I In the subdivisions the retail prices of salt per rupee are:—Bogorhat 8 seers and Sathkira 10 seers 10 chittaks.



## Head-quarters Station Bazars of the Districts of Bengal on the 31st October, 1893.

															WHOLESALE PRICES PER MAUND OF 40 SEERS.			DISTRICTS.	Number.															
INDIAN-CORN OR MAIZE. (Zea Mays.)			ARHAR OR THUR, CADJAN PEA. (Cajanus Indicus.)			FIREWOOD.			SALT.			SALT.																						
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.																				
S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	Rs.	a.	p.																				
...	...	...	19	8	20	0	17	0	99	0	98	0	100	0	11	4	11	4	12	0	3	9	0	3	9	3	3	5	4	Burdwan.	1			
...	...	...	13	6	13	6	14	0	300	0	280	0	320	0	10	5	10	10	2	10	0	3	14	0	3	12	0	3	10	0	Bankura.	2		
...	...	...	14	0	14	0	10	8	160	0	160	0	160	0	11	0	11	0	10	12	3	10	6	3	10	6	3	12	6	Birbhum.	3			
...	...	...	19	0	19	0	17	0	200	0	200	0	280	0	10	12	10	12	11	7	3	11	0	3	11	6	3	8	0	Midnapore.	4			
...	...	...	11	8	11	8	11	6	160	0	140	0	120	0	11	8	11	8	10	10	3	8	0	3	8	0	3	7	0	Hooghly.	5			
...	...	...	11	8	11	10	10	10	105	0	105	0	106	0	10	0	10	10	10	10	3	12	0	3	8	0	3	8	0	Howrah.	6			
19	6	19	6	19	5	17	12	17	12	15	4	85	0	85	0	85	0	11	2	11	8	11	3	3	9	3	3	8	0	3	4	6	Calcutta.	7
16	0	16	0	18	0	20	0	19	0	17	0	100	0	100	0	100	0	10	8	11	0	11	0	3	9	0	3	8	0	3	5	0	24-Parganas.	
...	...	...	22	13	22	13	17	12	128	0	128	0	...	...	9	13	9	13	10	10	3	10	0	3	10	0	3	8	0	3	8	0	Nadia.	
...	...	...	11	0	11	0	10	0	160	0	160	0	160	0	9	0	9	0	9	0	3	12	0	3	12	0	4	0	0	4	0	0	Khulna.	
...	...	...	20	0	20	0	15	0	120	0	120	0	120	0	10	0	10	0	9	2	3	10	0	3	10	0	3	10	0	3	10	0	Jessore.	
...	...	...	18	0	18	0	17	0	200	0	200	0	200	0	10	8	10	8	10	8	3	8	0	3	7	6	3	7	0	3	7	0	Murshidabad.	11
...	...	...	...	...	...	...	...	...	80	0	80	0	110	0	10	0	9	8	9	8	4	0	0	4	0	0	3	14	0	3	14	0	Chittagong.	12
...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	8	5	12	9	0	5	12	0	6	10	0	4	0	0	4	0	0	Noakhali.	13	
...	...	...	6	12	7	0	8	0	...	...	...	...	...	8	12	6	12	10	13	4	8	0	4	8	0	3	12	0	3	12	0	Tippura.	14	
No. in 800	cobs. 800	...	...	...	...	...	...	...	240	0	240	0	240	0	8	0	8	0	8	0	4	12	0	4	12	0	4	12	0	4	12	0	Chittagong Hill Tracts.	15
...	...	...	15	0	15	0	...	...	120	0	140	0	120	0	9	4	9	4	9	0	4	5	0	4	5	0	3	10	0	3	10	0	Dacca.	16
...	...	...	18	0	18	0	...	...	...	...	...	...	...	10	4	10	4	10	0	3	14	0	3	14	0	3	14	0	3	14	0	Faridpur.	17	
10	0	Mug. 10	0	10	0	8	0	Musuri. 8	0	7	8	80	0	80	0	80	0	9	4	9	4	10	10	4	8	0	4	4	0	3	10	0	Backergunge.	18
...	...	...	13	0	13	0	13	0	120	0	120	0	120	0	10	0	10	0	10	0	4	0	0	4	0	0	3	15	0	3	15	0	Mymensingh.	19
...	...	...	24	0	24	0	14	12	160	0	160	0	160	0	10	0	10	0	9	4	4	0	0	4	0	0	3	12	0	3	12	0	Dinajpur.	20
...	...	...	20	10	20	13	16	10	210	0	240	0	240	0	9	9	9	9	9	9	3	10	8	3	10	8	3	10	8	3	10	8	Rajshahi.	21
...	...	...	11	4	11	4	10	0	50	0	50	0	80	0	10	0	9	9	10	0	4	0	0	4	5	0	4	0	0	4	0	0	Rangpur.	22

J In the subdivisions the retail prices of salt per rupee are :—Jhenida 9½ seers, Magura 9½ seers, Narail 10 seers 10 outaks, and Bargaon 10 seers 11 chitaks.

K In the subdivisions the retail prices of salt per rupee are :—Jangipur 10½ seers and Kandi 10½ seers.

L At Cox's Bazar the retail price of salt is 9 seers per rupee.

M At Fenny Hat the retail price of salt is 6½ seers per rupee.

N In the subdivisions the retail prices of salt per rupee are :—Chandpur 8 seers and Brahmanbaria 8 seers.

O In the marts in the interior of the district the retail prices of salt per rupee are :—Madanganj 9½ seers, Manikganj 8 seers, Mirkadim hat 9½ seers, and Munshirhat 9½ seers.

P In the Madaripur and Goalundo subdivisions the retail price of salt is 9½ seers per rupee.

Q In the subdivisions the retail prices of salt per rupee are :—Firojpur 10½ seers, Patuakhali 9 seers, and Bhola 8 seers.

R In the subdivisions the retail prices of salt per rupee are :—Jamalpur 9 seers, Kishorganj 8 seers, Netrokona 8 seers, and Karghari 10 seers.

S In the Nator and Nangon subdivisions the retail prices of salt is 9 seers per rupee.

T In the subdivisions the retail prices of salt per rupee are :—Nilphamari 10 seers, Gaibanda 10 seers, and Kurigan 8 seers.

## PRICES-CURRENT (retail) of Food-grains, Firewood, and Salt in the Head-quarter

Number.		DISTRICTS.	QUANTITIES PER RUPEE IN																		
			WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR OHOLUM (Sorghum Vulgare.)						
			Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.				
BENGAL—continued.																					
RAJSHAH DIVISION —cont'd.	23	Bogra	12 0	13 8	12 0				8 4	8 4	7 8	11 4	0 12	10 8							
	24	Fabna	16 8	17 4	13 8	21 0	22 8		6 0	6 0	6 12	12 0	10 8	12 0							
	25	Darjeeling	8 0	8 0	7 0	9 0	8 0	8 0	5 0	5 0	5 0	11 0	10 0	10 0							
	26	Jalpaiguri	13 0	13 0	11 0	13 0	13 0	13 0	7 8	7 8	6 0	10 0	11 0	10 0							
BIHAR.																					
BHAGALPUR DIVISION.	27	Monghyr	15 12 to 17 14	16 4	12 0 to 13 0	18 11 to 19 15	21 0 to 21 0	14 0 to 15 0	10 8	8 6	8 8 to 9 0	15 12	13 1	12 0	16 13	21 0					
	28	Bhagalpur	15 2	15 2	13 11	20 0	20 3	15 2	11 4	11 6	10 1	15 8	15 2	12 10							
	29	Purnea (Kasbu)	16 0	16 0	11 0				10 0	10 0	9 0	18 0	12 0	13 0							
	30	Malda (English Bazar).	16 0	16 0	12 8							14 0	13 8	13 0							
	31	Sonthal Parganas.	13 8	12 8	11 0				11 0	11 0	9 0	14 4	14 8	10 0							
PALNA DIVISION.	32	Patna	17 0 to 16 0	18 8 to 17 0	15 0 to 14 0	22 0 to 22 0	25 0 to 25 0	20 0 to 20 0	11 0 to 10 8	10 8 to 10 0	18 0 to 18 0	16 8 to 16 8	15 0 to 15 0		24 0	26 0					
	33	Gaya	14 8	14 0	12 8	19 0	19 0	14 8	9 8	9 8	9 0	14 8	13 8	12 8	18 4	18 0					
	34	Shahabad	13 0	14 0	13 0		20 0	16 0	9 0	8 0	8 0	16 0	16 0	10 0							
	35	Darbhanga	15 8	15 0	11 8	18 10	19 0	15 6	12 0	12 0	11 0	16 8	16 0	15 6							
	36	Muzaffarpur	15 8	15 0	12 0	20 0	22 8	19 0	8 0	8 0	8 0	14 1	13 0	12 0							
	37	Saran	15 0	16 0	13 0	21 0	18 0	16 8	11 8	11 0	8 0	14 8	13 0	12 12							
	38	Champaran	12 8	13 8	11 8	22 0	18 4	14 8	8 4	8 8	9 0	17 8	16 12	16 0							
ORISSA.																					
ORISSA DIVISION.	39	Cuttack	11 13	11 13	10 8				10 8	10 8	7 14	13 2	13 2	11 13							
	40	Puri	10 8	10 8					8 0	8 0	7 1	13 0 Old 16 0 New 18 0	13 0	13 2							
	41	Balasore	13 0	13 0	11 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0							
CHOTA NAGPUR.																					
CHOTA NAGPUR DIVISION.	42	Havariabagh	12 8	12 0 to 12 0	11 0 to 11 0	16 0 to 16 0	15 0 to 15 0	13 0 to 13 0	8 0 to 8 0	8 0 to 8 0	7 0 to 7 0	12 0 to 12 0	11 8 to 11 8								
	43	Lohardaga	8 0 to 10 0	7 0 to 9 0	7 0 to 9 0	16 0 to 16 0	12 0 to 12 0	10 0 to 10 0	12 0 to 13 0	11 0 to 11 0	10 0 to 12 0	14 0 to 17 0	14 0 to 16 0	14 0 to 14 0	14 0 to 14 0						
	44	Palamau	14 1	13 8	11 13	23 10	25 5	13 8	12 6	12 6	11 4	15 3	16 14	14 10							
	45	Singhbhum	12 0	12 0	12 0				10 0	8 0	11 0	16 0	14 0	14 0							
	46	Manbhum	14 8	13 8	11 12				9 8 to 10 0	8 8 to 8 8	12 0 to 12 0	16 0 to 16 0	12 0 to 12 0	12 0 to 12 0							

U At Sirajpuri the retail price of salt is 10½ seers per rupee.

V At Silihari the retail price of salt is 9 seers per rupee.

W In the Jammu and Begusarai subdivisions the retail price of salt is 10 seers per rupee.

X In the subdivisions the retail prices of salt per rupee are:—Banka 9 seers, Madhipura 8½ seers, and Supaul 9 seers.

Y In the subdivisions the retail prices of salt per rupee are:—Kishanganj 10 seers and Arraria 9 seers.

Z In the subdivisions the retail prices of salt per rupee are:—Deoghur 10½ seers, Godda 9 seers, Jamtara 9 seers, Pakur 10½ seers, and Rajmahal 9 seers.

a In the subdivisions the retail prices of salt per rupee are:—Barh 11 seers, Bihar 10 seers, and Dinapore 10 seers.

b In the subdivisions the retail prices of salt per rupee are:—Jalunabad 10 seers, Nawada 9 seers and Aurangabad 9 seers.

c In the subdivisions the retail prices of salt per rupee are:—Buxar 10½ seers, Sasaram 10 seers, and Bhambua 9 seers.

CALCUTTA

The 31st October, 1893.



PRICES-CURRENT (wholesale) of

Number.	MARTS.									
		WHEAT.			BARLEY.			RICE, BEST SORT.		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	
		R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	
1	Calcutta ...	8 8 9	8 4 6	8 5 5	2 6 6	2 7 0	2 6 0	5 9 3	5 10 0	
2	Sirajganj ...	2 12 0	3 0 0	3 8 0	...	...	...	5 12 0	6 0 0	
3	Dacca ...	3 1 0	3 1 0	...	2 8 0	2 8 0	...	4 12 0	5 12 0	
4	Narayanganj ...	...	...	...	...	...	...	5 0 0	5 0 0	
5	Chittagong ...	4 0 0	4 0 0	4 0 0	...	...	...	4 8 0	4 12 0	
6	Patna ...	2 6 0	Red. 2 2 9	2 10 6	1 13 0	1 9 6	2 0 0	3 10 0	3 13 0	
		2 8 0	White. 2 6 0	2 12 6						
7	Balasoro ...	3 1 0	3 1 0	3 8 0	4 0 0	4 0 0	3 12 0	4 0 0	4 0 0	
8	Puri ...	3 12 0	3 12 0	...	...	...	...	5 0 0	5 0 0	
9	Cuttack ...	3 6 0	3 6 0	3 12 0	...	...	...	3 10 0	3 10 0	

OF 40 SEERS.

MARUA OR BARI. (Eleusine Coracana.)			KANKHORI OR KARU, ITALIAN MILLET. (Setaria italica.)		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
...	...	...	4 7 10 4	7 9 8	10 1
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
17 6	17 0	...	2 0 0	6 0 1	9 6
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...

22026

CALCUTTA,  
The 7th November, 1893.

in the undermentioned *Marts* of Bengal on the 31st October, 1893.

GRAM, CHANA, CHHOLA, KADALAY OR SUNAGA. ( <i>Cicer Arietinum</i> .)			INDIAN-CORN OR MAIZE. ( <i>Zea Mays</i> .)			ARHAR OR THUR, CADJAN PEA. ( <i>Cajanus indicus</i> .)			FIREWOOD.			SALT.			MARTS.
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	
2 13 0	2 13 0	2 8 4	2 1 0	2 1 0	1 13 0	2 4 0	2 4 0	2 5 6	0 7 0	0 7 0	0 6 0	3 9 3	3 8 0	3 4 6	Calcutta.
2 8 0	2 10 0	3 0 0	...	...	...	...	...	...	0 6 0	0 6 0	0 6 6	3 12 0	3 12 0	3 8 0	Sirajganj.
3 1 0	3 1 0	...	...	...	...	2 10 0	2 10 0	...	0 5 0	0 5 0	0 5 0	4 5 0	4 5 0	3 10 0	Dacca.
2 14 0	2 14 0	4 0 0	...	...	...	2 12 0	2 12 0	4 0 0	0 6 0	0 6 0	0 8 0	4 4 0	3 14 0	3 8 0	Narayanganj.
3 8 0	3 6 0	3 8 0	...	...	...	...	...	...	0 8 0	0 8 0	0 5 0	4 0 0	4 0 0	3 14 0	Chittagong.
1 7 0	1 7 9	1 14 6	1 11 6	1 9 6	1 9 6	1 7 9	1 8 9	1 14 6	0 5 0	0 5 0	0 5 0	3 10 0	3 11 6	3 8 0	Patna.
2 13 0	2 13 0	2 14 0	...	...	...	4 0 0	4 0 0	3 10 0	...	...	...	3 12 0	3 8 0	3 10 0	Balasore.
2 5 0	2 5 0	...	...	...	...	2 5 0	2 8 0	...	...	...	...	3 4 0	3 4 0	3 4 0	Puri.
2 0 0	(Kalai.) 2 0 0	2 4 0	...	...	...	2 0 0	2 0 0	2 8 0	0 8 0	0 8 0	0 8 0	3 8 0	3 8 0	3 12 0	Cuttack.

Published for general information.

M. FINUCANE,  
Offg. Secretary to the Govt. of Bengal.

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.											
			AIR PRESSURE.				WIND.		TEMPERATURE.					
			Mean barometric height, 8 A. M., reduced to 32°.	Mean reduced to sea-level and constant gravity, lat. 45°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.
ORISSA.	Puri	Puri	30.020	29.975	—	N	101	87.7	29. 31 Oct.	70.6	31st Oct.	87.0	78.1	79.7
		Gopalpore	30.020	29.981	+0.082	NWly	230	86.7	30th Oct.	65.1	1st Nov.	85.9	69.0	77.5
		False Point	30.017	29.980	+0.080	Nly	154	83.9	29 & 31 ..	67.5	3rd ..	85.1	69.4	77.3
SOUTH-WEST BENGAL.	Outtack	Outtack	29.954	29.978	+0.079	Calm	42*	87.2	29 to 31 .. & 3rd Nov.	63.8	31st Oct.	87.0	68.7	77.9
	Balasore	Balasore	29.984	29.984	+0.079	Nly	72	86.4	30th Oct.	64.7	3 & 4 Nov.	85.4	66.6	76.0
	Midnapore	Midnapore	29.869	29.988	+0.079	NEly	43	87.8	30th .. & 1st Nov.	63.2	2 & 3 ..	80.3	66.8	76.6
SOUTH-WEST BENGAL.	24 Parganas	Calcutta	30.017	29.934	+0.071	Calm	36	85.6	29th Oct.	66.7	2 & 4 ..	83.8	69.2	76.6
		Saugor Island	30.013	29.985	+0.081	NEly & NWly	109	85.7	2nd Nov.	67.4	4th ..	84.5	70.5	77.5
	Howrah	Howrah	29.987	29.983	+0.072	Nly	72	86.3	29th Oct.	64.2	3rd ..	85.4	68.2	76.7
SOUTH-WEST BENGAL.	Khulna	Khulna	29.996	29.973	+0.065	Nly	46	87.5	29th ..	66.5	2 & 4 ..	85.8	68.8	77.3
	Jessore	Jessore	29.720	30.013	+0.080	NE	41	88.1	31st ..	67.2	3rd ..	85.2	69.6	77.4
	Burdwan	Burdwan (Raniganj)	29.720	30.013	+0.080	Calm	32	85.0	29. h .. & 3 Nov.	65.0	2 & 3 Nov.	84.6	67.2	75.9
SOUTH-WEST BENGAL.	Bankura	Bankura	29.740	29.938	+0.081	Calm	27	85.1	23 to 31 ..	65.7	3rd ..	84.6	67.2	75.9
	Birbhum	Birbhum	29.974	29.991	+0.060	NW	45	84.6	29 to 31 ..	65.2	3rd ..	83.7	70.2	77.0
	Murshidabad	Berhampore	29.974	29.991	+0.060	NW	45	84.6	29 to 31 ..	65.2	3rd ..	83.7	70.2	77.0
NORTH BENGAL.	Pabna	Sirajganj	29.979	29.975	+0.002	Calm	20	86.1	29 & 31 ..	64.8	3rd ..	85.2	67.2	76.3
	Bogra	Bogra	29.969	29.974	+0.078	Nly	24	83.7	29th ..	63.2	1 & 3 ..	84.5	66.1	75.3
	Rajshahi	Rampur Bhojla	29.966	29.976	+0.065	NNE	88	85.1	24th ..	66.7	3rd ..	84.0	68.3	76.2
NORTH BENGAL.	Malda	Malda	29.963	29.967	—	NW	55	85.6	1st Nov.	64.5	1st ..	84.4	67.0	75.7
	Dinajpur	Dinajpur	29.921	30.002	+0.075	NE	28	85.0	30 & 31 Oct.	63.8	1st ..	85.0	66.0	75.6
	Rangpur	Rangpur	29.921	30.003	+0.068	NEly	38	85.8	29 to 31 .. & 4th Nov.	62.7	1st ..	85.2	65.1	75.1
NORTH BENGAL.	Jalpaiguri	Jalpaiguri	29.785	31.031	+0.088	Calm & NW.	34*	86.4	29 & 30 Oct.	61.6	31st Oct. & 1 & 2 Nov.	84.5	63.0	73.8
	Kuch Bihar	Kuch Bihar	29.785	31.031	+0.088	Calm & NW.	34*	86.4	29 & 30 Oct.	61.6	31st Oct. & 1 & 2 Nov.	84.5	63.0	73.8
	Darjeeling	Darjeeling	25.108	—	—	NEly	62*	59.1	29th ..	42.2	4th ..	56.3	43.3	49.6
NORTH BENGAL.	Sikkim	Gnatong	18.071	—	—	NEly	43*	22.9	4th Nov.	23.1	31st Oct.	40.3	24.3	33.3
	Chittagong	Chittagong	29.934	29.969	+0.068	NE	—	87.7	29. 31 Oct. 3, 4 Nov.	67.1	2nd Nov.	85.4	70.0	77.7
	Chittagong Hill Tracts	Jemagiri	29.963	29.951	+0.069	Calm	41	86.8	30 & 31 Oct.	66.9	3rd ..	85.9	70.1	78.0
EAST BENGAL.	Backergunge	Barisal	29.954	29.944	+0.061	NEly	—	85.5	1st Nov.	63.0	1st ..	83.5	67.3	76.6
	Noakhali	Noakhali	29.930	29.981	+0.072	Variable	17	80.0	29th Oct.	65.9	2nd ..	84.0	70.0	77.3
	Fazlpur	Fazlpur	29.935	29.965	+0.061	NEly	74	87.6	23 to 31 ..	60.2	2nd ..	86.8	69.4	78.1
EAST BENGAL.	Dacca	Dacca	29.975	29.939	+0.063	Nly	46*	87.4	4th Nov.	63.8	2nd ..	84.3	69.2	77.8
	Tippera	Tippera	29.964	29.975	+0.069	NEly	44*	86.2	29th Oct.	65.1	3rd ..	84.4	67.4	76.0
	Mymensingh	Mymensingh	29.929	30.011	+0.072	Calm	4	85.2	29th ..	64.3	1st ..	83.0	66.4	75.0
NORTH BIHAR.	Purnea	Purnea	29.980	29.998	+0.070	Calm	7	85.7	29th ..	64.0	1st ..	84.3	65.6	75.0
	Bhagalpur	Bhagalpur	29.800	30.014	+0.068	Calm & NW	30	83.9	29 to 31 ..	67.2	3 & 4 ..	85.1	68.2	76.7
	Darbhanga	Darbhanga	29.876	30.018	—	Calm & WNW	28	83.7	31st ..	64.3	1 & 4 ..	84.8	65.4	73.9
NORTH BIHAR.	Muzaffarpur	Muzaffarpur	29.814	30.002	+0.070	Variable	57	84.2	29 to 31 ..	61.8	2 to 4 ..	83.5	63.2	73.4
	Champanan	Motihari	29.880	30.027	+0.104	Variable	33	81.3	29 & 31 ..	64.1	1st ..	83.7	65.2	74.5
	Narain	Chhapra	29.718	31.034	+0.080	SWly	90	84.3	2nd Nov.	62.0	4th ..	83.4	64.1	73.8
SOUTH BIHAR.	Shahabad	Buxar	29.817	30.018	+0.072	Calm & Sly	41	84.6	29. 30 Oct. 1 & 2 Nov.	63.9	31st Oct. & 1st Nov.	84.2	66.4	74.8
	Gaya	Arrah	29.864	30.011	+0.084	Variable	18	85.8	29th Oct. & 2nd Nov.	63.5	4th ..	85.4	64.4	74.9
	Gaya	Gaya	29.980	30.026	+0.091	Variable	122	85.9	30 & 31 Oct.	62.7	3rd ..	85.0	64.3	74.7
SOUTH BIHAR.	Patna	Bankipore	29.874	30.016	+0.063	SWly	38	83.5	30 & 31 ..	66.3	31st Oct. & 1st Nov.	83.9	66.8	74.9
	Monghyr	Monghyr	29.547	30.008	+0.081	NWly	12	85.1	29th ..	63.5	2nd ..	83.0	65.6	74.3
	Sonthal Parganas	Naya Dumka	28.614	30.010	+0.060	Variable	98	80.2	30th ..	59.2	3rd ..	78.6	69.6	69.0
CHOTA NAGPUR.	Hazaribagh	Hazaribagh	27.884	30.000	+0.059	Variable	71	80.0	30th ..	60.5	29 & 31 Oct.	77.4	61.5	69.5
	Lohardaga	Ranchi	29.267	29.893	+0.077	Calm	47	86.4	30 & 31 ..	61.0	1st Nov.	85.3	63.2	74.3
	Jamshedpur	Jamshedpur	29.772	30.072	+0.095	NE	—	83.6	30th ..	62.3	3rd ..	81.0	63.9	73.5
ASAM.	Goalpara	Dhubri	29.934	30.007	+0.063	NE	133*	—	—	63.9	1 & 4 ..	—	65.0	—
	Cachar	Silchar	29.933	29.990	+0.079	Calm	—	83.5	30th .. & 3rd Nov.	63.4	4th ..	87.9	67.0	77.5

\* Mean of 6 days.

**Explanation.—Summary.**—The normal means of air pressure and temperature are the arithmetical average or means of the readings during the same period. The humidity of the atmosphere is expressed in percentage, saturated air being represented by 100. A clear sky is denoted by 0 and an overcast sky by 101. The normal means of the rainfall are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional stations, i.e. from total rainfall at the subdivisional stations in the district, divided by the number of stations. A rainy day is one of

for the week ending Saturday, the 4th of November 1893.

DISTRICT OBSERVATIONS.																District.
Variation from normal mean.	Mean 8 A.M. temperature.	Average humidity at 8 A.M.	Average cloud amount at 8 A.M.	Rainfall of week at observing station.	OF WEEK.				RAINFALL.							
					Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Since 1st of month.			Since 16th October 1893.				
									Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.		
-	76.6	74	1.6	Nil	0.01	1.50	0.00	1.33	0.01	1.08	-1.07		4.96		Puri.	
-0.8	73.9	79	2.3	Nil												
-1.0	76.5	83	3.3	0.05												
-1.2	75.1	73	1.3	Nil	Nil	0.76	0.00	1.11	Nil	0.48	-0.48	4.15	3.10	+1.02		Outback.
-0.3	78.1	86	0.6	Nil	Nil	0.73	0.00	0.86	Nil	0.39	-0.39		2.28		Balasore.	
+0.2	72.6	78	1.4	Nil	Nil	0.48	0.00	0.60	Nil	0.23	-0.23	3.20	3.13	+0.07	Midnapore.	
-0.6	75.3	79	1.4	Nil	Nil	0.53	0.00	0.70	Nil	0.25	-0.25	2.42	2.87	-0.45	24-Parganas.	
-0.5	76.1	84	2.3	Nil												
					Nil	0.43	0.00	0.66	Nil	0.18	-0.18		1.86			
					Nil	0.35	0.00	0.55	Nil	0.14	-0.14		2.10			Howrah.
+0.2	75.6	77	1.4	Nil	Nil	0.27	0.00	0.43	Nil	0.11	-0.11		1.88		Hoochly.	
-1.0	75.5	86	0.7	Nil	Nil	0.42	0.00	0.64	Nil	0.21	-0.21	2.15	2.63	-0.51	Nadia.	
-0.3	74.6	77	0.6	Nil	Nil	0.47	0.00	0.66	Nil	0.23	-0.23	0.88	2.31	-1.43	Khulna.	
	72.7	79	0.4	Nil											Jessore.	
-0.9	73.7	73	1.7	Nil	Nil	0.34	0.00	0.41	Nil	0.18	-0.18	1.09	1.95	+0.06	Burdwan.	
-0.2	73.8	86	3.1	Nil	Nil	0.23	0.00	0.39	Nil	0.18	-0.18	2.28	1.82	+0.41	Bakura, Birbhum, Murshidabad.	
					Nil	0.20	0.00	0.22	Nil	0.07	-0.07	1.76	1.70	+0.06		
					Nil	0.20	0.00	0.20	Nil	0.06	-0.06		1.87			
+0.7	73.8	84	0.1	Nil	Nil	0.20	0.00	0.50	Nil	0.11	-0.11	2.97	2.23	+0.74		Pabna.
-0.1	73.6	86	0	Nil	Nil	0.11	0.00	0.24	Nil	0.06	-0.06	4.01	1.77	+2.24	Bogra.	
+1.8	74.9	88	1.7	Nil	Nil	0.16	0.00	0.29	Nil	0.06	-0.06	2.73	1.45	+1.28	Rajshahi.	
-	74.0	84	1.4	Nil	Nil	0.42	0.00	0.18	Nil	0.03	-0.03	3.13	1.31	+1.82	Malda.	
+1.1	72.9	80	0	Nil	Nil	0.11	0.00	0.05	Nil	0.01	-0.01	2.81	1.25	+1.56	Dinajpur.	
+0.7	72.7	86	0	Nil	Nil	0.16	0.00	0.16	Nil	0.01	-0.01	1.79	2.02	-0.23	Rangpur.	
+0.3	70.8	74	2.1	Nil	Nil	0.44	0.00	0.25	Nil	0.02	-0.02	2.70	2.04	-0.66	Jalpaiguri, Kuch Bliar.	
-1.1	50.4	71	1.9	Nil	Nil	0.15	0.00	0.21	Nil	0.06	-0.06	3.65	1.73	+1.90		
					Nil	0.45	0.00	0.26	Nil	0.06	-0.06		2.41			
																Darjeeling, Gnatong.
-0.2	74.5	92	5.1	0.03		1.25		0.90		0.90			3.58		Chittagong.	
					Nil	1.11	0.00	0.90	Nil	0.93	-0.93	5.31	2.89	+2.42	Chittagong Hill Tracts, Buckerghunge.	
+1.4	77.8	82	0.0	Nil	Nil	1.11	0.00	0.92	Nil	0.92	-0.92		2.16		Nonkhali.	
-0.2	76.7	88	1.7	Nil	Nil	1.44	0.00	1.05	Nil	1.35	-1.35		3.27		Faridpur.	
+0.9	76.3	87	0	Nil	Nil	0.31	0.00	0.59	Nil	0.21	-0.20		2.09		Dacca.	
-0.4	75.7	89	1.4	Nil	Nil	0.59	0.00	0.70	Nil	0.36	-0.36	3.17	2.25	+0.92	Tippera.	
-0.5	76.8	82	1.1	Nil	Nil	0.65	0.00	0.78	Nil	0.39	-0.39		2.21		Mymensingh.	
-0.6	73.7	84	1.7	0.81		0.19		0.38		0.12			2.40		Purnea.	
+0.5	71.2	89	0	Nil	Nil	0.40	0.00	0.24	Nil	0.03	-0.03	2.66	1.48	+1.18	Bhagalpur.	
+0.9	73.9	82	0.7	Nil	Nil	0.31	0.00	0.19	Nil	0.01	-0.01	2.49	1.29	+1.20	Darbhanga.	
+0.1	74.5	81	0	Nil	Nil	0.14	0.00	0.19	Nil	0.02	-0.02	5.80	0.91	+4.89	Muzaffarpur.	
-	73.3	84	0	Nil	Nil	0.26	0.00	0.26	Nil	0.02	-0.02	7.61	1.02	+6.59	Champaran.	
+1.3	71.6	86	0	Nil	Nil	0.21	0.00	0.22	Nil	0.02	-0.02	8.55	0.43	+8.12	Saran.	
0	74.5	75	0	Nil	Nil	0.07	0.00	0.13	Nil	0.00	0	5.55	0.76	+4.79	Shahabad.	
-0.4	72.3	80	0	Nil												
-0.4	72.6	73	0.1	Nil	Nil	0.16	0.00	0.30	Nil	0.01	-0.01	5.34	1.10	+4.24	Gaya.	
+0.5	73.1	80	0	Nil	Nil	0.11	0.00	0.21	Nil	0.01	-0.01	2.46	0.82	+1.64	Patna.	
-0.6	71.5	71	1.4	Nil	Nil	0.14	0.00	0.20	Nil	0.01	-0.01	4.32	1.23	+3.09	Monkhyr.	
-0.9	74.6	74	0	Nil	Nil	0.26	0.00	0.22	Nil	0.00	0	1.71	1.31	+0.40	Sonhat Parganas.	
+0.1	72.6	78	1.0	Nil	Nil	0.17	0.00	0.15	Nil	0.01	-0.01	2.43	1.47	+0.96	Hazaribagh.	
-1.6	69.5	71	3.3	Nil	Nil	0.18	0.00	0.45	Nil	0.09	-0.09		1.00		Isahardua, Palaman.	
-0.5	67.6	73	3.3	Nil	Nil	0.24	0.00	0.40	Nil	0.12	-0.12	3.24	1.19	+2.05	Singbhum, Manbhum.	
					Nil	0.60	0.00	0.45	Nil	0.21	-0.21		1.01			
-1.3	71.0	75	2.0	Nil	Nil	0.39	0.00	0.76	Nil	0.07	-0.07	0.70	1.57	-0.87		
					Nil	0.13	0.00	0.26	Nil	0.03	-0.03	1.34	1.26	+0.08		
-0.9	67.6	80	1.1	Nil												
	70.8	88	0	Nil												
0	74.1	83	4.3	Nil												

for the last ten years. The variations are *negative* when the mean for the week is less than the corresponding normal mean, and *positive* when greater. The numbers denoting cloud amount represents the part of the sky covered the whole sky being denoted by 10. Under the head District observations are for the period in question during the past ten years. The means of the district are the numerical average of the rainfall returned received in the which at least a tenth of an inch fell.









# SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSERVATIONS TAKEN IN ASSAM, FOR THE WEEK ENDING 8 A.M., SATURDAY, THE 4TH OF NOVEMBER 1893.

At the end of the previous week a depression in the east of the Bay was close to the Arakan coast between Diamond Island and Akyab, moving in a north-easterly direction. On the first day of the present week the area of lowest pressure was in Upper Burma, and as the disturbance had lost much of its severity in crossing the rough country near the coast it had practically ceased to affect the weather in the Bay or in Bengal except in East Bengal, where one or two light showers fell, and pressure was still below the normal. The rapid increase of pressure that had begun in the south of Arakan spread northwards, and the distribution underwent a material change. From being low in the east of the province, readings soon became highest in Assam and diminished steadily towards the south of the Bay. This arrangement continued throughout the week and was accompanied by fine settled weather, light northerly winds, and cloudless skies over the whole province. Temperature fell slowly from day to day and never differed much from the normal, being slightly above in some districts and slightly below in the others.

Within a day or two of pressure becoming lowest in the south of the Bay, unsettled conditions appeared both at the Burma stations and on the Madras coast. Wind velocity increased, and the sea was rough probably over the whole of the south of the Bay, but as pressure changes were small and irregular, there was no certainty that a storm had developed till towards the end of the week, when a low pressure area approached the South Madras coast. On the 4th November, the last day of the week, the centre of the depression was still at some distance from the coast. It passed inland near Cuddalore early on the morning of the 6th, and caused very stormy weather, especially between Madras and Cuddalore. Its influence was felt to a small extent over a wide area. The sky became overcast in Orissa, the Circars, and even in Lower Bengal, and probably over the whole Bay area, but the rough weather was confined to the south-west of the Bay.

Pressure fell slowly in Bengal on the first day of the week, but it soon recovered after the disturbance in the early part of the week broke up in Burma. Readings became very high, and the only subsequent changes were the small oscillations usual in settled weather. Means for the week are above the normal everywhere by amounts varying from  $\cdot 06$  inch to  $\cdot 1$  inch.

**Temperature.**—At the beginning of the week mean daily temperature was slightly above the normal in the central districts, and below in the east and west, in places by as much as  $2^{\circ}$ . After the northerly winds became prevalent a slow fall set in and comparatively cool weather was experienced over the whole province, but defect was nowhere large. Towards the end of the week temperature rose in the western districts, probably owing to the disturbing influence of the storm in the south-west of the Bay; excess, however, was rarely over  $1^{\circ}$ . The means for the large divisions are above the normal in North Bengal, East Bengal, and North Bihar, and below in other districts, the only difference of more than  $1^{\circ}$  being in Chota Nagpur.

**Rainfall.**—With the exception of one or two very light showers in East Bengal in the early part of the week, none has been reported.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 4th of November 1893:—

METEOROLOGICAL DIVISIONS	TEMPERATURE.							RAINFALL.								
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.		Rainy days.		Since 1st of month.		Since 16th May 1893.			
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.		
Orissa ... ..	87.7	64.7	86.1	60.2	77.7	-0.8	Nil	0.95	-0.35	0.00	1.07	-1.07	Nil	0.60	5.29	3.27
South-West Bengal ... ..	88.1	64.2	84.9	68.6	76.9	-0.4	Nil	0.36	-0.36	0.00	0.50	-0.50	Nil	0.17	1.08	2.24
North Bengal ... ..	88.1	61.6	84.7	66.1	75.4	+0.8	Nil	0.18	-0.18	0.00	0.21	-0.21	Nil	0.04	2.90	1.72
East Bengal ... ..	87.6	63.0	85.3	60.1	77.3	+0.1	0.00	0.70	-0.61	0.12	0.72	-0.60	Nil	0.51	4.08	2.63
North Bihar ... ..	85.7	61.8	83.9	65.7	74.8	+0.6	Nil	0.24	-0.24	0.00	0.20	-0.20	Nil	0.02	5.08	1.02
South Bihar ... ..	85.0	62.0	84.0	65.1	74.6	-0.3	Nil	0.17	-0.17	0.00	0.19	-0.19	Nil	0.01	8.33	1.23
Chota Nagpur ... ..	86.4	59.2	80.4	61.8	71.1	-1.1	Nil	0.23	-0.23	0.00	0.43	-0.43	Nil	0.10	3.14	1.13
Assam ... ..	80.5	62.3	84.5	60.0	75.0	-0.5										

METEOROLOGICAL OFFICE, BENGAL,

O. LITTLE,

The 7th November 1893.

Offg. Meteorological Reporter to the Govt. of Bengal.

**Abstract of the results of Meteorological Observations taken at the Alipore Observatory in the month of October 1893.**

			Inches.	Date.	Hour.
The mean pressure of the month	...	...	29.822		
The average pressure of October from 24 years' registers	...	...	29.832		
The highest pressure in the month	...	...	30.030	30th	10
The lowest pressure in the month	...	...	29.589	3rd	16
The range of pressure	...	...	0.441		
<hr/>					
The total number of hours of bright sunshine during the month			224.3		
The maximum possible number of hours of sunshine	...		359.1		
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The mean temperature of the month	...	...	80.1		
The average temperature of October from 24 years' registers	...	...	81.5		
The highest temperature in the month	...	...	90.2	3rd.	
The lowest temperature in the month	...	...	70.2	31st.	
The range of temperature during the month	...	...	20.0		
The mean daily range of temperature	...	...	11.4		
The greatest range of temperature in one day	...	...	13.7	24th.	
<hr/>					
The mean humidity of the month	...	...	86		
The average humidity of October from 24 years' registers	...	...	79		
<hr/>					
The mean vapour tension of the month	...	...	0.877		
The average vapour tension of October from 9 years' registers	...	...	0.854		
The mean cloud proportion of the month	...	...	4.09		
The average cloud proportion of October from 16 years' registers	...	...	4.01		
The total rainfall of the month	...	...	7.34		
The total rainfall indicated by a Beckley's self-registering rain-gauge (mouth of the gauge about 52 feet above the ground)	...	...	6.98		
The average fall of October from 48 years' registers	...	...	5.61		
The greatest fall in 24 hours	...	...	2.12	12th.	
<hr/>					
The number of rainy days in the month	...	...	11		
The average number of rainy days in October from 24 years' registers	...	...	10		
<hr/>					
The mean maximum equilibrium temperature of solar radiation during the month	...	...	145.1		
The mean difference of sun and air temperatures	...	...	58.8		
The greatest sun temperature	...	...	153.3	15th.	
The greatest excess of sun over air temperature	...	...	66.7	7th.	
The mean temperature of the nocturnal radiation thermometer on woollen cloth	...	...	71.8		
The mean depression of the nocturnal radiation thermometer below the minimum air temperature at 4 feet above the ground	...	...	3.2		
The greatest depression of the nocturnal radiation thermometer below the minimum air temperature	...	...	5.4	30th.	
<hr/>					
The mean movement of the wind per day	...	...	53.6		
The greatest movement of the wind in one day	...	...	158.0	22nd.	
The greatest movement of the wind in one hour	...	...	12	16th and 22nd noon to 1 P.M.	
<hr/>					
The number of hours with winds from each of the 8 points—					
N. 145, N.E. 42, E. 55, S.E. 52, S. 41, S.W. 55, W. 69, N.W. 68, Calm 217.					

The results of observations at the Alipore Observatory are not rigorously comparable with the registers of past years (at the Park Street Observatory). The barometer is about 3 feet higher at Alipore, and, other things being equal, reads therefore .003 lower. The diurnal range of

temperature is also greater at Alipore, and the mean temperature apparently about 0.8 lower; and, finally, the thermometer which furnished the record of temperature at the Surveyor-General's Office during 20 years and upwards is found to read 0.6 higher than the Kew standard thermometer, which is the standard of reference at the present Observatory.

J. H. GULLLAND,

METEOROLOGICAL OFFICE, INDIA;  
Calcutta, the 6th November 1893.

*For Meteorological Reporter to the Govt. of India.*

Abstract of the Results of the Barometric and Thermometric Observations taken at 10 a.m. at the Meteorological Office, Chowringhee, in the month of October 1893.

		Inches.	Data.
The mean pressure at 10 A.M. during the month	...	29.888	
The mean temperature at 10 A.M. during the month	...	84.1	
The highest temperature during the month	...	92.5	3rd.
The lowest temperature during the month	...	70.0	31st.
The absolute range of temperature during the month	...	22.5	
The mean daily range of temperature during the month	...	13.2	
The greatest range of temperature in one day during the month	...	15.2	1st.
		%	
The mean 10 A.M. humidity during the month	...	75	
		Inches.	
The mean 10 A.M. vapour tension during the month	...	8.76	
The total rainfall of the month	...	8.55	
The greatest fall in 24 hours	...	2.64	12th.
The number of rainy days in the month	...	9	

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA,

The 8th November 1893.

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 29th October to 4th November 1893.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° F.	TEMPERATURE.					HYGROMETRY.				Rainfall, past 24 hours
			Daily mean.	Maximum.	Range:	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
October	29th	29.947	78.7	85.9	14.4	71.5	82.6	75.3	.780	71.8	70	Nil.
"	30th	30.032	78.1	85.3	14.5	70.8	82.0	74.5	.754	70.8	69	"
"	31st	.001	77.5	81.9	14.9	70.0	82.6	74.5	.746	70.5	67	"
November	1st	.047	77.6	81.9	14.6	70.3	81.6	76.5	.846	71.2	79	"
"	2nd	.082	75.4	81.9	19.0	65.9	82.4	75.5	.790	72.2	71	"
"	3rd	.055	75.9	84.9	18.0	66.9	81.0	72.6	.690	68.2	65	"
"	4th	.049	75.0	83.9	16.8	67.1	79.6	72.1	.688	68.1	68	"

The mean 10 A.M. pressure of the seven days ... 30.030 Inches.

The mean temperature of the seven days ... 76.9

The extreme variation of temperature ... 20.0

The maximum temperature ... 85.9

The mean 10 A.M. relative humidity of the seven days ... 70 %

The total fall of rain from 29th October to 4th November 1893 ... Nil. Inches.

The daily mean temperatures are the crude means of maximum and minimum temperatures.

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA,

The 6th November 1893.

**Results of the Meteorological Observations taken at the Alipore Observatory from  
29th October to 4th November 1893.**

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
		°		Inches.	°	°	°	°	°	Inches	°	%			Inches.	
Oct.	29th	143.3	10.3	29.892	77.9	84.2	11.5	72.7	73.8	0.779	71.7	82	N by W and calm	65	Nil	Chiefly clear, <i>P.</i>
"	30th	138.7	8.3	.965	77.1	84.2	13.3	70.9	75.3	.760	71.3	83	NNE and calm ..	20	"	Partially cloudy, <i>P.</i>
"	31st	141.4	8.1	.953	76.5	83.7	13.5	79.2	72.1	.732	69.9	81	ENE and calm ...	23	"	Partially cloudy, <i>P.</i>
Nov.	1st	139.0	9.8	.986	76.1	84.0	11.0	70.0	71.0	.691	68.2	78	ENE and calm ...	46	"	Morning partially cloudy; day and night clear, <i>P.</i>
"	2nd	139.6	9.5	30.017	74.2	82.5	15.6	66.9	68.9	.637	65.8	77	N by W and calm	33	"	Chiefly clear, <i>P.</i>
"	3rd	143.4	9.2	29.987	74.3	82.2	15.0	67.2	69.1	.643	66.1	75	WNW and calm	29	"	Chiefly clear <i>P.</i>
"	4th	137.5	5.8	.982	74.1	82.4	15.5	66.9	69.5	.661	66.9	79	ESE and calm ..	14	"	Partially cloudy, <i>P.</i>

The mean pressure of the seven days	...	...	...	Inches.	29.969
The average pressure of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	29.906
The total number of hours of bright sunshine	...	...	...	Hours.	61.0
The maximum possible number of hours of sunshine	...	...	...	°	78.9
The mean temperature of the seven days	...	...	...	...	75.7
The average temperature of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	78.7
The extreme variation of temperature	...	...	...	...	17.3
The maximum temperature	...	...	...	...	84.2
The highest velocity of the wind in one hour	...	...	...	Miles.	8
The highest pressure of wind on one square foot	...	...	...	lbs.	?
The mean relative humidity	...	...	...	%	79
The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	74
The total fall of rain from 29th October to 4th November 1893	...	...	...	Inches.	Nil
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	0.37
The total fall from 1st January to 4th November 1893	...	...	...	...	85.20
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	64.70

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

*P.*, dew; *O.*, overcast.







*Supplementary Vital Statistics of Districts and of Towns in Bengal for August 1893 received too late for publication with the figures of that month on the 29th September 1893.*

Divisions.	Districts.	BIRTHS.			DEATHS.												AVERAGE OF CORRESPONDING MONTHS OF PREVIOUS FIVE YEARS.			
		Population under registration.	Births.		Cholera.	Small-pox.	Peyer.	Dysentery and Diarrhea.		Injury.	Other causes.		Total of all causes.		Ratio per 1,000.	Number registered.				
			Number registered.	Ratio per 1,000.				Ratio per 1,000.	Ratio per 1,000.		Ratio per 1,000.	Ratio per 1,000.	Ratio per 1,000.	Ratio per 1,000.			Ratio per 1,000.	Ratio per 1,000.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Burdwan	Midnapore	2,831,516	6,966	31.48	216	1.08	27	79	3,613	16.44	194	84	140	60	902	4.08	5,131	23.28	4,734	21.84
	24 Parganas	1,592,063	3,857	23.16	35	1.2	3	01	2,448	15.48	114	72	173	198	336	2.04	3,097	19.56	2,703	17.32
	Darjeeling	228,314	Not under registration.		1	0.4			624	27.48	515	11	13	60	184	10.32	1,047	46.16	613	25.83
	Bajshahi	2,681,322	2,227	39.12	94	1.2			1,610	26.32	45	64	28	48	79	4.32	1,778	37.20	1,390	23.00
	Patna	2,063,367	5,719	33.60	98	4.8	9	0.4	5,318	30.48	35	12	138	72	771	4.44	6,369	30.60	5,880	25.00
	Orissa	Cuttack	1,897,671	5,515	34.08	874	5.40	189	43	1,640	10.08	310	1.00	154	84	935	5.36	4,071	25.20	4,119	25.44
	Total	9,429,223	24,146	31.44	1,933	1.56	176	12	15,152	19.32	917	1.08	646	72	3,297	4.08	21,431	27.24	19,319	24.48
	Total for the Province	70,388,083	206,133	35.16	3,837	60	846	12	115,419	16.68	3,496	48	4,564	72	26,281	4.44	154,793	26.28	136,833	23.04
	Average of corresponding month of previous five years.		Not available, as birth registration in rural areas was only introduced from 1893.		13,470	2.28	633	00	93,773	15.96	4,305	72	4,271	72	19,393	3.24	135,833	23.04	...	...
	Difference + or -		.....	.....	-9,623	-1.68	+223	+03	+21,675	+3.72	-809	-24	+536	Equal	+6,880	+1.20	+18,969	+3.24	...	...
Midnapore	1 Midnapore	32,954	70	28.20	14	5.16	.....	.....	49	18.12	27	0.95	1	36	17	6.24	108	40.08	57	21.79
	2 Cossipore-Chutpur	11,726	31	11.76	1	3.56	.....	.....	31	11.76	6	3.00	.....	.....	9	3.56	43	18.60	61	23.28
	3 Manikata	32,865	26	9.48	3	1.08	.....	.....	53	12.00	9	3.24	.....	.....	11	3.96	56	20.40	33	14.04
	4 Barnagore	16,018	46	16.08	2	6.08	1	24	41	14.24	8	2.76	.....	.....	16	5.52	43	23.76	61	21.24
	5 South Suburban	24,228	153	24.28	6	9.06	.....	.....	112	19.12	12	3.24	3	48	18	8.00	193	27.12	66	11.16
	6 Khorda or South Barrack-pore.	5,644	26	5.64	.....	.....	.....	.....	63	21.30	4	1.32	.....	.....	2	6.00	69	25.16	46	15.48
	7 Nailhati	28,754	64	28.50	1	3.6	.....	.....	42	16.32	5	1.92	1	36	8	3.12	57	22.98	54	21.29
	8 Nawabganj	20,980	36	20.92	.....	.....	.....	.....	36	20.92	13	3.96	.....	.....	9	5.04	68	53.72	46	25.48
	9 Arrah	44,806	161	44.16	2	4.8	.....	.....	136	34.08	13	3.96	7	1.68	33	8.40	191	46.74	118	30.18
	10 Sasaram	22,713	96	22.71	.....	.....	.....	.....	60	27.00	1	1.08	2	48	15	9.43	81	23.72	123	34.38
	11 Cuttack	47,186	59	13.60	73	15.48	.....	.....	13	3.24	8	1.92	3	1.08	20	5.04	131	26.72	83	22.39
	TOTAL	463,617	773	29.22	102	3.00	1	0.9	616	18.24	115	3.56	21	60	161	4.68	1,016	30.12	791	26.33
	Total of all towns with a population of 20,000 and over.	1,649,273	3,927	28.66	40	2.88	5	0.3	2,611	18.96	492	3.48	95	60	1,083	7.68	4,680	33.26	3,788	27.36
	Average of corresponding month of previous five years.	.....	Complete figures of past five years are not available.	.....	686	5.04	23	1.2	1,559	11.28	437	3.12	78	48	973	6.96	3,769	27.24	.....	.....
	Difference + or -	.....	.....	.....	-287	-2.16	-18	-09	+1,059	+7.68	+55	+36	+17	+12	+95	+7.2	+951	+6.72	.....	.....

• The registration of births in rural areas of the Darjeeling district was discontinued.

OFFICE OF SANY. COMM. FOR BENGAL,  
The 4th November 1893.

W. H. GREGG, Surgn.-Lieut.-Col., Dip. Publ. Health, Camb.,  
Sanitary Commissioner for Bengal.

Weekly Return of Traffic Receipts on Indian Railways.

EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 28th October 1893, on 1,610½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	*250,525	*2,80,704 6 0	19,84,072 29	5,18,074 14 6	14,945 5 0	8,19,720 0 0	74,130	93,651	167,781
Or per mile of railway ...	.....	178 0 4	.....	321 11 0	9 4 6	508 15 10	.....	.....	.....
For previous 16½ weeks of half-year ...	4,619,804	48,30,080 0 0	5,84,27,791 30	63,08,251 7 0	2,37,501 0 0	1,33,75,832 13 0	1,234,541	1,572,950½	2,807,491½
Total for 17½ weeks ...	4,870,329	51,10,784 0 0	4,04,11,804 10	88,26,328 5 0	2,62,506 11 0	1,41,95,619 6 0	1,308,071	1,666,607½	2,975,278½
COMPARISON.									
Total for corresponding week of previous year ...	270,857	3,17,088 6 5	22,94,654 20	5,61,848 5 11	19,042 2 6	9,01,578 14 10	74,239	91,369	165,632
Or per mile of railway corresponding week of previous year ...	.....	197 4 2	.....	350 11 8	11 13 2	559 13 0	.....	.....	.....
Total for corresponding 17½ weeks of previous year ...	4,417,067	44,90,285 6 4	3,86,44,670 0	66,67,679 9 5	2,82,169 0 9	1,33,40,027 9 0	1,282,200	1,577,184	2,859,384

\* The decrease is chiefly in inward traffic with Foreign lines.

TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 28th October 1893, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	*18,741	*4,855 7 0	6,469 10	251 1 0	50 0 0	4,896 8 0	894	74	968
Or per mile of railway ...	.....	204 11 10	.....	11 4 6	1 5 7	217 5 11	.....	.....	.....
For previous 16½ weeks of half-year ...	280,313	68,639 1 0	1,44,757 0	4,502 12 0	366 0 0	73,548 13 0	14,463	1,253½	15,716½
Total for 17½ weeks ...	299,054	73,186 3 0	1,51,226 10	4,803 13 0	396 0 0	78,385 5 0	15,357	1,327½	16,684½
COMPARISON.									
Total for corresponding week of previous year ...	21,372½	5,371 13 7	9,536 20	510 6 0	6 3 3	5,888 8 10	880	82	968
Or per mile of railway corresponding week of previous year ...	.....	241 7 0	.....	22 15 0	0 4 6	264 10 6	.....	.....	.....
Total for corresponding 17½ weeks of previous year ...	323,606	79,212 12 8	1,11,492 30	4,725 3 0	134 1 0	84,072 1 5	15,655	1,138	16,793

\* The decrease is due to movement of pilgrims from Tarakesur.

DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for week ended 28th October 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	*17,638	*13,747 2 0	48,106 10	7,246 11 0	40 0 0	21,033 13 0	6,163	2,910	9,073
Or per mile of railway ...	.....	86 2 9	.....	44 14 5	0 4 0	130 5 2	.....	.....	.....
For previous 16½ weeks of half-year ...	318,981	2,27,328 2 0	8,81,895 0	1,19,087 14 0	580 0 0	3,48,005 0 0	100,025	45,895½	146,020½
Total for 17½ weeks ...	336,619	2,41,175 4 0	9,30,001 10	1,27,234 9 0	629 0 0	3,69,038 13 0	100,198	48,905½	155,003½
COMPARISON.									
Total for corresponding week of previous year ...	17,922½	17,006 6 11	45,162 0	7,455 5 0	58 6 0	25,450 1 11	6,896	3,103	9,999
Or per mile of railway corresponding week of previous year ...	.....	110 15 1	.....	46 6 1	0 5 9	157 10 11	.....	.....	.....
Total for corresponding 17½ weeks of previous year ...	288,947	2,15,762 9 3	6,38,782 0	1,12,076 10 6	797 0 3	3,23,236 10 0	111,780	41,754	153,523

\* The decrease is partly due to running of Special trains and partly in bookings from Umballa and Kalka.

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K.-D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for the week ended 21st October 1893, on 778 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	174,650	86,620 0 0	9,12,400 0	2,01,090 0 0	16,070 0 0	3,04,370 0 0	33,884	41,476	70,360
Or per mile of railway ...	224	111 0 0	1,173 0	254 0 0	*2 0 0	*371 0 0	.....	.....	.....
For previous 15 weeks of half-year ...	2,405,175	11,02,925 0 0	1,28,17,185 0	25,05,058 0 0	2,50,139 0 0	38,58,132 0 0	439,434	498,632	918,066
Total for 16 weeks ...	2,680,825	11,80,545 0 0	1,37,39,675 0	27,06,138 0 0	2,66,800 0 0	41,62,402 0 0	458,318	530,108	988,426
COMPARISON.									
Total for corresponding week of previous year ...	133,345	68,164 0 0	8,20,818 0	2,13,352 0 0	17,562 0 0	2,99,578 0 0	23,700	43,038	71,738
Per mile of railway corresponding week of previous year ...	172	88 0 0	1,056 0	275 0 0	*2 0 0	*365 0 0	.....	.....	.....
Total to corresponding date of previous year ...	2,450,008	10,53,008 0 0	1,14,90,878 0	27,29,744 0 0	2,63,100 0 0	40,42,537 0 0	440,787	539,343	1,030,109

\* Excluding steamer earnings.

† Audited up to week ending 2nd September 1893.

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K.-D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for the week ended 28th October 1893, on 777\* miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	150,170	80,640 0 0	10,02,300 0	2,40,260 0 0	20,640 0 0	3,56,540 0 0	27,572	46,672	74,244
Or per mile of railway ...	193	104 0 0	1,365 0	316 0 0	†18 0 0	†433 0 0	...	...	...
For previous 15 weeks of half-year ...	2,009,825	11,80,545 0 0	1,37,39,705 0	27,06,138 0 0	2,66,800 0 0	41,62,402 0 0	458,318	530,108	988,426
Total for 17 weeks ...	2,819,303	12,70,185 0 0	1,47,91,975 0	29,22,398 0 0	2,96,440 0 0	45,19,032 0 0	485,890	576,780	1,062,670
COMPARISON.									
Total for corresponding week of previous year ...	182,387	94,954 0 0	9,30,355 0	2,27,620 0 0	25,533 0 0	3,48,107 0 0	27,775	43,603	70,378
Per mile of railway corresponding week of previous year ...	235	122 0 0	1,273 0	293 0 0	†16 0 0	†431 0 0	...	...	...
Total to corresponding date of previous year ...	2,641,485	11,48,647 0 0	1,24,80,233 0	29,48,364 0 0	2,83,633 0 0	43,90,644 0 0	468,542	631,945	1,100,487

\* Audited up to week ending 2nd September 1893.

† Excluding steamer earnings.

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for the week ended 21st October 1893, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	32,190	14,530 0 0	40,800 0	3,330 0 0	340 0 0	18,200 0 0	3,631	1,901	5,672
Or per mile of railway ...	258	116 0 0	326 0	27 0 0	8 0 0	146 0 0	...	...	...
For previous 15 weeks of half-year ...	479,812	1,50,520 0 0	8,57,451 0	70,001 0 0	1,983 0 0	2,22,873 0 0	58,910	29,227	88,137
Total for 16 weeks ...	512,002	1,65,350 0 0	8,98,251 0	73,391 0 0	2,323 0 0	2,41,073 0 0	60,591	31,316	91,909
COMPARISON.									
Total for corresponding week of previous year ...	23,054	9,016 0 0	59,404 0	4,521 0 0	361 0 0	13,868 0 0	3,631	1,901	5,672
Per mile of railway corresponding week of previous year ...	185	72 0 0	475 0	36 0 0	3 0 0	111 0 0	...	...	...
Total to corresponding date of previous year ...	478,800	1,54,602 0 0	8,63,802 0	74,019 0 0	2,323 0 0	2,31,534 0 0	59,606	34,821	94,427

\* Audited up to week ending 2nd September 1893.

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for the week ended 28th October 1893, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	MDS. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	28,560	10,530 0 0	46,450 0	8,770 0 0	40 0 0	14,840 0 0	3,638	2,034	5,672
Or per mile of railway ...	228	84 0 0	372 0	30 0 0	1 0 0	116 0 0	...	...	...
For previous 16 weeks of half-year* ...	512,002	1,65,359 0 0	8,59,251 0	73,391 0 0	2,323 0 0	2,41,073 0 0	60,591	31,218	91,809
Total for 17 weeks ...	540,562	1,75,889 0 0	9,44,701 0	77,161 0 0	2,363 0 0	2,55,418 0 0	64,229	33,252	97,481
COMPARISON.									
Total for corresponding week of previous year ...	30,020	11,775 0 0	64,056 0	5,189 0 0	187 0 0	17,151 0 0	3,638	2,034	5,672
Per mile of railway corresponding week of previous year ...	245	94 0 0	512 0	42 0 0	1 0 0	137 0 0	...	...	...
Total to corresponding date of previous year ...	507,320	1,60,467 0 0	9,27,618 0	79,208 0 0	3,010 0 0	2,49,085 0 0	63,804	36,855	100,159

\* Audited up to week ending 2nd September 1893.

## DACCA STATE RAILWAY.

Approximate Return of Traffic for the week ended 21st October 1893, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	MDS. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	14,790	5,550 0 0	45,890 0	4,340 0 0	130 0 0	10,020 0 0	2,487	1,247	3,734
Or per mile of railway ...	172	65 0 0	534 0	50 0 0	2 0 0	117 0 0	...	...	...
For previous 16 weeks of half-year* ...	264,104	86,789 0 0	4,07,337 0	31,535 0 0	2,292 0 0	1,23,616 0 0	37,764	13,287	51,051
Total for 16 weeks ...	278,894	92,339 0 0	5,13,127 0	38,875 0 0	2,423 0 0	1,33,636 0 0	40,251	14,534	54,785
COMPARISON.									
Total for corresponding week of previous year ...	14,500	5,385 0 0	32,790 0	2,970 0 0	134 0 0	8,480 0 0	2,395	787	3,182
Per mile of railway corresponding week of previous year ...	170	63 0 0	381 0	34 0 0	2 0 0	90 0 0	...	...	...
Total to corresponding date of previous year ...	253,021	83,539 0 0	5,25,087 0	26,102 0 0	3,356 0 0	1,13,117 0 0	41,160	11,334	52,494

\* Audited up to week ending 2nd September 1893.

## DACCA STATE RAILWAY.

Approximate Return of Traffic for the week ended 28th October 1893, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	MDS. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	14,540	5,740 0 0	50,740 0	4,010 0 0	100 0 0	10,450 0 0	2,303	1,489	3,792
Or per mile of railway ...	169	67 0 0	590 0	54 0 0	1 0 0	122 0 0	...	...	...
For previous 16 weeks of half-year* ...	278,804	92,339 0 0	5,13,127 0	38,875 0 0	2,423 0 0	1,33,636 0 0	40,251	14,534	54,785
Total for 17 weeks ...	293,344	98,079 0 0	5,63,967 0	43,485 0 0	2,522 0 0	1,44,086 0 0	42,554	16,023	58,577
COMPARISON.									
Total for corresponding week of previous year ...	10,313	6,647 0 0	47,387 0	4,036 0 0	350 0 0	11,043 0 0	2,451	743	3,244
Per mile of railway corresponding week of previous year ...	225	77 0 0	551 0	47 0 0	4 0 0	128 0 0	...	...	...
Total to corresponding date of previous year ...	275,334	90,246 0 0	5,74,074 0	30,198 0 0	3,715 0 0	1,24,180 0 0	43,641	12,077	55,718

\* Audited up to week ending 2nd September 1893

## BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIRHUT STATE RAILWAY.)

Approximate return of traffic for the week ending 28th October 1893, on 766 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs.	Mds.	Rs.	Rs.	Rs.			
Total traffic for the week on 766 miles open ... ..	88,720	34,570	329,480	47,550	9,640	92,040	13,968	14,021	27,984
Or per mile of railway ... ..	117.35	45.73	431.50	62.87	13.16	121.75	...	...	...
For previous 154 weeks of half-year (a) ... ..	1,418,370	5,45,995	3,673,237	4,74,902	1,38,242	11,69,189	250,215	207,241	457,456
Total for 16½ weeks ... ..	1,507,090	5,80,565	4,001,737	5,22,452	1,44,182	12,51,179	264,178	321,302	485,480
COMPARISON.									
Total for corresponding week of previous year on 755 miles open ... ..	91,034	39,316	305,408	48,044	15,512	1,08,872	13,674	15,633	29,307
Per mile of corresponding week of previous year ... ..	120.57	52.07	404.51	64.30	20.55	137.58	...	...	...
Total to corresponding date of previous year ... ..	1,421,480	5,37,840	4,130,146	5,77,689	1,40,919	12,65,448	233,534	257,071	490,605

(a) Includes audited figures up to 16th September 1893.

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

	Rs.	A.	P.
Approximate earnings for the week ending 21st October 1893 ... ..	12,010	0	0
Corresponding period of 1892 ... ..	15,801	0	0
Decrease ... ..	3,785	0	0
Receipts per mile for the week ending 21st October 1893 ... ..	235	9	9
Corresponding period of 1892 ... ..	309	13	1
Decrease ... ..	74	3	4
Receipts from 1st July to 21st October 1893 ... ..	1,80,945	0	0
Corresponding period of 1892 ... ..	1,80,470	0	0
Decrease ... ..	475	0	0

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

	Rs.	A.	P.
Approximate earnings for the week ending 28th October 1893 ... ..	19,676	0	0
Corresponding period of 1892 ... ..	18,022	0	0
Increase ... ..	1,654	0	0
Receipts per mile for the week ending 28th October 1893 ... ..	335	12	8
Corresponding period of 1892 ... ..	353	6	1
Increase ... ..	32	6	7
Receipts from 1st July to 28th October 1893 ... ..	2,00,661	0	0
Corresponding period of 1892 ... ..	2,08,492	0	0
Decrease ... ..	7,831	0	0





# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, NOVEMBER 15, 1893.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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*Abstract of the Proceedings of the Council of the Lieutenant-Governor of Bengal, assembled for the purpose of making Laws and Regulations under the provisions of the Indian Councils Acts, 1861 and 1892.*

THE Council met at the Council Chamber on Saturday, the 11th November, 1893.

#### Present:

THE HON'BLE SIR ANTONY PATRICK MACDONNELL, K.C.S.I., Offg. Lieutenant-Governor of Bengal, *President*.

THE HON'BLE T. T. ALLEN.

THE HON'BLE H. J. S. COTTON, C.S.I.

THE HON'BLE SIR JOHN LAMBERT, K.C.I.E.

THE HON'BLE GONESH CHUNDER CHUNDER.

THE HON'BLE D. R. LYALL, C.S.I.

THE HON'BLE J. A. BOURDILLON.

THE HON'BLE MAULVI ABDUL JUBBAR, KHAN BAHADUR.

THE HON'BLE F. R. S. COLLIER.

THE HON'BLE MAULVI SYED FAZL IMAM, KHAN BAHADUR.

THE HON'BLE MAHARAJA RAVANESHWAR PROSAD SINGH BAHADUR OF GIDHOUR.

THE HON'BLE SURENDRANATH BANERJEE.

THE HON'BLE MAULVI SERAJUL ISLAM, KHAN BAHADUR.

THE HON'BLE P. PLAYFAIR.

THE HON'BLE J. G. WOMACK.

### THE LIEUTENANT-GOVERNOR'S TOUR CHARGES.

WITH reference to the question No. 1(c), asked on the 22nd July, 1893, by the HON'BLE W. C. BONNERJEE, regarding the cost per annum of making Darjeeling the summer head-quarters of the Bengal Government, the HON'BLE MR. BOURDILLON replied as follows :—

“I have now, in fulfilment of my promise of the 22nd July last, to reply that the annual cost since 1888-89 of making Darjeeling the summer head-quarters of the Bengal Government has been as follows :—

					Rs.
1888-89	...	...	...	...	30,158
1889-90	...	...	...	...	29,768
1890-91	...	...	...	...	29,780
1891-92	...	...	...	...	37,152
1892-93	...	...	...	...	37,792 ”

### RECOMMENDATIONS OF THE PUBLIC SERVICE COMMISSION.

The HON'BLE BABU SURENDRANATH BANERJEE asked—

Will the Government state what further effect has been given to the recommendations of the Public Service Commission beyond what was stated by the HON'BLE MR. COTTON in his reply, given at the meeting of the Council held on the 22nd July last, (1) in connection with the appointment of natives of India to offices hitherto reserved for the Covenanted Civil Service; (2) in connection with the wider employment of natives of India in the higher grades of the Police Service?

The HON'BLE MR. COTTON replied :—

“Both questions referred to are under the consideration of Government.”

### NUMBER OF CERTAIN CLASSES OF PUBLIC SERVANTS.

The HON'BLE BABU SURENDRANATH BANERJEE asked—

Will the Government lay on the table a statement containing the following heads of information in regard to the following classes of public servants employed in the various offices in connection with the branches of administration under its control :—(1) the number of Natives of India in each office, (2) the number of Eurasians in each office, (3) the number of Europeans in each office; drawing monthly salaries as given below :—(a) from rupees two hundred to rupees four hundred, (b) from rupees four hundred to rupees eight hundred, (c) from rupees eight hundred to rupees one thousand, (d) from rupees one thousand to rupees fifteen hundred, (e) from rupees fifteen hundred to rupees two thousand, (g) from rupees two thousand to rupees three thousand, (h) from rupees three thousand to rupees four thousand?

The HON'BLE MR. COTTON replied :—

“The names of gazetted officers, European, Eurasian and pure Natives of India employed under the Government of Bengal, with the salary each officer receives, are given in the Bengal Quarterly Civil List, which is available to the public. To furnish similar information in regard to non-gazetted officers as well as the information contained in the Civil List in the form stated in the question would involve protracted enquiry and the entertainment of an extra establishment, the labour and cost of which the Government is not prepared to incur. But if the Hon'ble Member will restrict his enquiry to the Civil Service of India, the Provincial Civil Service and the Subordinate Civil Service in Bengal, so far as the number of Europeans, Eurasians and Natives of India is concerned, the information can be procured without much difficulty, and will be supplied.”



The HON'BLE BABU SURENDRANATH BANERJEE said:—"I will be glad to have the information which is available."

HIS HONOUR THE PRESIDENT said:—"The information will be furnished."

### HINDU RELIGIOUS ESTABLISHMENTS.

The HON'BLE BABU SURENDRANATH BANERJEE asked—

To ask Government whether it is not the case that Act XX of 1863 has proved a failure, and that the Trustees of Hindus Religious Establishments have brought about the extinction of some, and are grossly mismanaging the proceeds of others, and whether there is not great waste of temple funds which are controlled by Mohants all over the Province?

The HON'BLE MR. COTTON replied:—

"There is no recent official information before the Lieutenant-Governor which would justify his expressing an opinion on either portion of this question."

### INCREMENTS TO OFFICERS OF THE EDUCATIONAL SERVICE.

The HON'BLE BABU SURENDRANATH BANERJEE asked—

Whether a circular was issued a few months ago by the Director of Public Instruction to the officers of the Education Department, stopping the increments to which they were entitled; (b) whether on the protest of some officers of the superior graded service the above circular was withdrawn as regards all such officers of that service, allowing them the increments to which they were entitled; (c) whether the same circular was kept in force as regards officers of the Subordinate Service, thus depriving them of the increments to which they were entitled, on the ground that a new scheme had been submitted to the Government of India, remodelling the Subordinate Graded Service of the Education Department; (d) whether the scheme regulating the salaries of both branches of the Bengal Educational Service, Superior and Subordinate, received the sanction of the Secretary of State, and whether such sanction has been withdrawn in respect of either of these branches of the service?

The HON'BLE MR. COTTON replied:—

"Some misapprehension appears to exist on the part of the Hon'ble Member in regard to this question, which makes it impossible for me to give categorical replies. The facts are, however, as follows:—The Government in sanctioning promotions from time to time in the Subordinate Educational Service has passed orders to the effect that 'the arrangements sanctioned were subject to the introduction of changes in the Subordinate Educational Service and conveyed no claim to progressive salaries.' These orders were by an oversight made applicable in certain cases to officers of the Superior Educational Service, but the mistake was at once corrected as soon as it was brought to notice unofficially by the Director of Public Instruction. On the 18th February last the following instructions were issued in reply to a letter from the Director, asking for an authoritative interpretation of the Government orders on the subject:—

'The orders were intended to convey that, when an officer is promoted to a higher grade in the Subordinate Educational Service, he enters it on the understanding that the system of increments is probably coming to an end, and that no increment will be given till this is decided: this ruling was necessary in order to prevent complications arising when the Educational Service is re-organised. It does not apply to the Superior Educational Service, as to which no such proposals for abolishing progressive salaries have been made by this Government.

'It should therefore be understood that promotions from a lower to a higher grade of the Subordinate Educational Service, either acting or permanent, will carry with them no title to progressive pay in the higher grade, but those

who now hold acting appointments, and who have already drawn increments in the grades in which they are so acting, will continue to draw any increments which they may be entitled in those grades.'

This answer is given in reply to sub-heads (a), (b) and (c) of the Hon'ble Member's question.

The reply to sub-head (d) is that the scheme for re-organising the Educational Service in Bengal, which affects both branches of the Department as at present constituted, has not yet been sanctioned by the Secretary of State."

#### SEPARATION OF JUDICIAL AND EXECUTIVE FUNCTIONS.

The HON'BLE BABU SURENDRANATH BANERJEE asked—

Whether the attention of the Government has been called to the note published by Mr. R. C. Dutt of the Bengal Civil Service on the separation of judicial and executive functions in the administration of criminal justice, and whether the Government proposes to take any, if so, what, action in connection with the matter?

The HON'BLE MR. COTTON replied:—

"The attention of Government has been drawn to Mr. R. C. Dutt's note by a communication on the subject from the Secretary to the Indian Association, but the Lieutenant-Governor is not in a position at present to make any statement regarding it."

#### RELIEF MEASURES IN EASTERN BENGAL.

The HON'BLE BABU SURENDRANATH BANERJEE asked—

Will the Government state what advances under the Agricultural Loans Act have been made in the following districts:—Barisal, Faridpur, Noakhali and Tippera, and what measures of relief have been adopted in the aforesaid districts (1) by the Government, (2) by the District Boards, and, lastly, by the local zamindars?

The HON'BLE MR. COTTON replied:—

"There is no distress in the Dacca or Chittagong Divisions which calls for special measures on the part of Government, nor is there such distress anywhere except in a concentrated area, and among a limited number of people in the Bhil tracts of the Faridpur and Backergunge districts. The following sums for advances under the Agriculturists' Loans Act have been allotted to the districts enumerated in the Hon'ble Member's question:—

					Rs.
Backergunge	...	...	...	...	12,500
Faridpur	...	...	...	...	23,000
Noakhali	...	...	...	...	11,100
Tippera	...	...	...	...	

Public works have been started under the District Boards in accordance with the procedure prescribed for such circumstances, but as yet few labourers have appeared on them. Relief centres have also been opened in the areas referred to. The sum of Rs. 10,000 has been placed at the disposal of the Commissioner of Dacca for expenditure on charitable relief to be granted in aid of district funds and public subscriptions should these prove insufficient. It has been reported to Government that some, not all, of the principal zamindars have been assisting their tenantry with liberality. The Officiating Lieutenant-Governor is satisfied that the measures taken amply meet the necessities of the case."

#### ANTI-KINE-KILLING AGITATION.

The HON'BLE BABU SURENDRANATH BANERJEE asked—

Whether the Government will organise conciliation committees on the model of those recently established in the North-Western Provinces in such districts

where there have been cow-killing riots or where such disturbances are apprehended, and whether Government will state what measures it proposes to take for the securing of order and the establishment of harmony between the communities in conflict with each other in the aforesaid districts?

The Hon'ble Mr. COTTON replied:—

“So long as the 8th September last a circular was issued to local officers, requesting them to consider whether in villages where the Gaur-akhshini movement had attained any considerable development, and animosity between Hindu and Muhammadans was likely to arise or had arisen, it would not be possible to constitute punchayats or conciliation committees of the leading members of the Hindu and Muhammadan communities for the purpose of promoting mutual forbearance and peaceful relations. The Officiating Lieutenant-Governor regrets, however, to say that, owing to the embittered state of local feeling, his efforts in this direction have been attended with scant success. His Honour's views on the maintenance of order and the establishment of harmony between the communities in conflict with one another have already been published, and he has nothing to add to them at present. The district officers have been instructed to enforce the law with energy against the instigators and promoters of any disturbance.”

#### BENGAL MUNICIPAL ACT, 1884, AMENDMENT BILL.

The Hon'ble Mr. COTTON moved that the Hon'ble Mr. Bourdillon be appointed in the place of the Hon'ble Mr. RISLEY to the Select Committee on the Bill to amend the Bengal Municipal Act, III of 1884.

The Motion was put and agreed to.

The Council adjourned *sine die*.

GORDON LEITH,

*Assistant Secretary to the Govt. of Bengal,  
Legislative Department.*

CALCUTTA;

The 14th November, 1893. }

**RESOLUTION ON THE REPORT OF THE BOARD OF REVENUE  
ON THE ADMINISTRATION OF WARDS AND ATTACHED  
ESTATES FOR THE YEAR 1892-93.**

**REVENUE DEPARTMENT—LAND REVENUE.**

*Calcutta, the 13th November, 1893.*

RESOLUTION No. 4614.

**READ—**

The Report of the Board of Revenue on Wards and Attached Estates in the Lower Provinces for the year 1892-93.

The Report, which was due on the 31st August, reached Government on the 13th September, or one week later than in the preceding year. The report of the Commissioner of Chota Nagpur to the Board was again late by 21 days; that of the Commissioner of Dacca was not received by the Board till six weeks after the date on which it was due, while the statement showing the working of the Certificate Department for Dacca was not furnished by the Commissioner till the 28th August.

Certain suggestions made by Government in connection with the Report for 1891-92 for the improvement of the tables embodied in the Report and its appendices have been duly carried out in the present Report.

The number of Wards' estates under charge of the Court of Wards was 74 and of Attached estates 66, against 75 and 69 respectively in 1891-92; there was thus a decrease of one in the former and of three in the latter.

2. The total demand for revenue and cesses due to Government was Rs. 49,43,634, of which Rs. 22,47 represent arrears, and Rs. 49,21,187 the current demand. The payments amounted to Rs. 21,812 of the arrear, and Rs. 48,74,022 of the current demand, being a total of Rs. 48,95,834. The percentage of current payments on current demand was 99.0 against 99.6 in the year 1891-92. There was a large increase in the balance, which amounted to Rs. 47,800 against Rs. 12,828 in the preceding year. The Basudebpur estate in Midnapore, and the Satkhira estate in Khulna, are responsible for Rs. 27,91 and Rs. 19,000 respectively, or altogether Rs. 46,791 of the total balance. Both these estates are heavily involved, but the balance due by the Satkhira estate was fully paid in after the close of the year.

3. The demands of rent and cesses due to superior landlords were—arrear Rs. 91,348, current Rs. 4,40,762, total Rs. 5,32,110. The payments amounted to Rs. 4,50,090, and Rs. 1,994 were remitted, leaving a balance at the end of the year of Rs. 80,026, which compares unfavourably with the balance for the previous year, amounting to only Rs. 44,711. So far as these balances are due to the superior landlords' refusal or neglect to accept payment owing to disputes among co-sharers they cast no reflection on the management of the estates.

4. The following statement shows the demands and collections of rent and cesses due to the estates for the five years ending with the year of report:—

YEAR.	DEMAND.			COLLECTIONS.			PERCENTAGE OF—		Remission.	Balances.
	Arrear.	Current.	Total.	Arrear.	Current.	Total.	Current collection on current demand.	Total collections on current demand.		
1	2	3	4	5	6	7	8	9	10	11
1892-93	Rs. 62,03,603	Rs. 92,00,687	Rs. 1,54,04,290	Rs. 20,04,150	Rs. 61,06,739	Rs. 81,10,889	66.8	97.8	3,05,625	80,06,710
1891-92	77,67,017	91,63,100	1,69,30,117	30,62,386	60,61,371	91,38,736	66.3	99.9	12,12,179	65,69,202
1890-91	79,81,132	98,9,668	1,78,11,620	.....	.....	96,20,092	.....	98	7,37,403	74,24,635
1889-90	1,08,46,389	1,0,15,159	2,08,61,548	.....	.....	1,02,24,501	.....	102	24,59,188	81,84,039
1888-89	1,12,89,022	1,08,44,636	2,16,33,677	.....	.....	97,20,340	.....	94	10,79,428	1,08,42,804

The percentage of current collections on current demand was 66.6 against 66.3 in the year before. Government, in its Resolution on the Report for 1891-92, observed that the latter figure was very low, and compared unfavourably with

the standard attained in Government estates managed direct in which, in 1891-92, over 90 per cent. of the current demand was collected. This percentage has been attained only in 1892-93, in four estates under the Court of Wards three of which have been under the management of the Court for a long series of years, while in the remaining estate the rents are mostly payable by farmers. The Board observe:—

The case of private estates is somewhat different from that of Government estates: when an estate comes under the charge of the Court of Wards, it is almost invariably found that the rent-roll is encumbered with large arrear balances. One of the first duties of the manager appointed by the Court is to scrutinize the balances. Those which are barred by limitation are easily swept off. But many of the old balances have been kept alive by instalment bonds executed in favour of the former proprietors. Other instalments are due on decrees of Court. A large sum consists of items depending on disputed accounts. Each of these involves minute enquiry and explanation. In fact the task of adjusting the accounts involves much time and labour. Generally speaking, the affairs of a property of considerable importance cannot be looked into, cleared up, and the new arrangements brought into thorough order for two or three years after management is undertaken by the Court, even when the late proprietor has left the estate in comparatively good order, and in most cases far more time than this is required to bring order out of the confusion which is almost invariably found to prevail. The state of transition from the management of the proprietor to that of the Court of Wards in itself gives a check to collections and causes a portion of the current demand, due after the assumption of the charge of an estate, to fall into arrear.

The Officiating Lieutenant-Governor, while agreeing generally with the above remarks, still thinks that much may be done in the direction of reducing arrear balances by careful scrutiny of them, by striking off such balances as are not recoverable by law, and balances which, though recoverable by law, the raiyats are never likely to be able to pay.

In order to prevent managers trying to secure a fanciful percentage approximating to the standard fixed by Government, the Board has issued instructions to the effect that, when a tenant makes a payment without specification of the demand for which the payment is made, it should, in the ordinary course, be credited to the arrear and not to the current demand. These instructions are approved by the Lieutenant-Governor. The total collections, current and arrear, during the year did not equal the current demand.

Rupees 54,77,772 of the total balance (Rs. 60,96,710) shown in column 11 of the above statement for the year 1892-93 accrued after the estates were taken over by the Court. Rupees 46,28,643 of the balances are reported to be good and in process of recovery.

5. The outstanding balance of debts due at the end of the year 1891-92 was Rs. 37,05,508. At the commencement of the year of report it was reduced to Rs. 31,67,981 by the release of certain estates. At the close of the year the balance stood at Rs. 32,77,619, the increase being chiefly in the Presidency and Patna Divisions, in consequence of the Court having assumed charge of the Satkhira estate in the former and of the Paigambarpur estate in the latter Division. The debts due by the Basudebpur estate in Midnapore, and the Chandrakûmâr estate in Shahabad, have increased owing to interest on debts and costs. The Lieutenant-Governor approves the Board's conclusion that, in order to extricate the former estate from its desperate financial condition, the greater part of it should be sold. There was a marked decrease of nearly 1½ lakhs in Burdwan, due chiefly to the repayment by the Burdwan Raj of a loan taken from the Bank of Bengal.

6. The percentage of the total cost of management proper, calculated on the current rent and cess demand, was the same as in the preceding year, viz. 7·8.

Act X of 1892, which came into force on the 25th October 1892, authorized the levy of (1) a general management rate not exceeding 5 per cent. on the gross income calculated to cover the cost of Government establishments, in so far as they may be employed in the supervision or management of such estates, and (2) a charge for special audit of accounts and legal advice. The charges levied under executive orders, prior to the passing of Act X of 1892, consisted of (a) a general management rate levied for the purpose of meeting the costs for establishments, contingencies, &c., in

the Collectors', Commissioners' and Board's offices; (b) a treasury rate for defraying a proportionate share of treasury establishments; and (c) an audit rate and fees for legal advice. Government has tentatively sanctioned the proposals of the Board in regard to the new rates to be levied under Act X of 1892. There will henceforth be a consolidated general management rate which has been provisionally fixed on the basis of the proceeds of the old management and treasury rates, with the addition of a new charge for superior supervision, which latter consists of a small fraction of the salary of one member of the Board of Revenue, of the Senior Secretary to the Board of Revenue, of Commissioners and District Officers. The rate will for the present be  $2\frac{1}{4}$  per cent. on gross income for estates with a gross income of 5 lakhs of rupees or less,  $\frac{1}{2}$  per cent. for the Burdwan estate, and  $1\frac{1}{2}$  per cent. for the Tikari and Dighapattia estates. The professional audit rate levied under executive orders was  $1\frac{1}{2}$  annas per cent. for the Burdwan estate,  $4\frac{1}{4}$  annas per cent. for the Tikari and Dighapattia estates, and 6 annas per cent. for all other estates with a rent and cess roll of Rs. 50,000 and upwards. The audit charge fixed under Act X of 1892 is one anna per cent. on gross income for the Burdwan estate, 4 annas per cent. for Tikari and Dighapattia, and 6 annas per cent. for other estates with an annual rent and cess demand of not less than Rs. 50,000 per annum. No change has been made in the fees charged for legal advice. As Act X of 1892 came into force during the second-half of the year 1892-93, in order to avoid complication in accounts, the old rates will be levied for the whole year, and the surplus which has accumulated for several years past to the credit of the general management rate will be set-off against the Government claim to the new rate for the second-half of the year. The new rates will come into force from the commencement of 1893-94.

7. The following statement shows the total amount spent on schools, dispensaries, maintenance of buildings, works of improvement, surveys and settlements during the last five years.

YEAR.	Subscriptions and donations to schools.	Subscriptions and donations to dispensaries.	Maintenance in efficient condition of estates, buildings, and other immovable property.	Improvement of land and property for benefit of ward.	Surveys and settlements.	Total.
1	2	3	4	5	6	7
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1892-93	64,050	30,534	2,16,870	1,57,783	97,104	5,78,339
1891-92	61,155	27,594	1,91,307	92,564	2,67,445	6,50,359
1890-91	59,241	32,225	2,13,178	58,404	1,30,523	4,80,601
1889-90	60,301	36,732	2,34,439	66,810	2,34,168	6,23,670
1888-89	58,707	38,110	1,24,698	58,107	1,38,101	4,17,733

There was an increase of Rs. 64,918 as compared with the preceding year in the expenditure on reproductive improvements. Of this amount, Rs. 42,131 represents the increase in the Patna Division alone, due to the transfer to this head, in accordance with the instructions of Government, of charges for gilandazi or village irrigation channels, which are of a recurring nature. The percentage of outlay on reproductive works to investments during the year was 56.1, or, eliminating the increase due to transfer of gilandazi charges, 41 as against 17 only in the preceding year—a result which may be regarded as satisfactory. The Lieutenant-Governor observes with pleasure that the Board have drawn the attention of the local officers to the Government orders insisting on the policy of a liberal expenditure on improvements of a reproductive character in solvent estates, and is glad to observe that, except in the Presidency, Chittagong, Dacca and Orissa Divisions, there has been some improvement in this respect during the year under report. Sir Antony MacDonnell entirely agrees with the remarks made in the Resolution on last year's report under this head.

The decrease in the expenditure on surveys and settlements is chiefly due to the completion of operations in some of the Burdwan Raj khas mahals and in various other large estates. In pursuance of the policy laid down by

Government that the Court of Wards should prepare a correct rent-roll and record of rights under the Bengal Tenancy Act, where none has been already prepared, a survey and record of rights in the Tikari Wards' Estates in Gaya has recently been ordered. Surveys and settlements on a large scale, under the supervision of the Director of Land Records, were in progress in the following estates:—Burdwan Raj, Talipabad, Dakhin Shahbazar, Sarsil Pargana (Kasimbazar estate), Kauika; while operations on a smaller scale were either conducted, or about to be undertaken, in 12 other estates.

8. The following statement shows the working of the certificate procedure in Wards' and Attached estates during the five years ending with 1892-93:—

Certificates										
YEAR	Number pending at the close of the year	Number filed during the year	Total	Disposed during the year	Pending more than 6 months	Pending less than 6 months	Total	Amount of demand covered by the certificates	Total annual rent and cesses of estates	Percentage of column 9 to column 10
1	2	3	4	5	6	7	8	9	10	11
1892-93	13,210	8,644	21,854	11,765	9,063	1,040	10,093	Rs. 8,58,414	Rs. 92,99,637	9.2
1891-92	13,704	13,399	27,003	17,148	8,107	1,749	9,857	4,78,865	51,53,100	5.1
1890-91	21,167	10,975	32,142	18,418	13,103	1,511	13,704	4,60,970	56,29,568	4.6
1889-90	23,018	1,301	8,315	17,698	18,546	2,211	20,787	6,53,903	1,00,15,189	6.5
1888-89	10,176	21,922	35,009	12,080	21,371	1,647	23,018	8,63,017	1,09,44,555	8.6

A revised form prescribed by Government for showing the working of the certificate procedure has been made use of for the first time. The Officiating Lieutenant-Governor approves the Board's proposal to add an additional column after column 17, Appendix III, with the heading "Total amount covered by certificates struck off during the year." In this form every estate in respect of which 100 certificates or more were issued is shown separately, other estates being grouped together under the districts to which they appertain.

As might have been expected, the orders of Government restricting the certificate procedure to estates having an authoritative rent-roll, reduced the total number of certificates from 13,299 in 1891-92 to 8,648 in 1892-93. It is to be regretted, however, that the disposals show a larger proportion of decrease, being 11,765 against 17,148 during the preceding year. The discrepancy between the figures in column 8 of the statement in paragraph 26 of the report for the year 1891-92, showing the number of cases pending at the close of that year, and the grand total in column 3 of Appendix III of the report for 1892-93, should have been explained. Government has approved the Board's proposal to create a separate permanent Certificate Department in each district, to replace the existing heterogeneous establishments, and has authorized the Board to submit definite proposals.

9. Part II of the Board's Report is devoted to estates with a rent-roll of Rs. 50,000 and upwards. The revenue and cess demand due by the Burdwan Raj Estate, amounting to Rs. 34,51,037, was fully satisfied; the collections amounted to Rs. 45,11,892 or 99.7 per cent. of the current demand for rent and cesses, thus increasing instead of reducing the amount of arrears. This result is attributed to the collections in the Kujang estate being 65.8 per cent. only of the current demand, in consequence of the distress caused among the tenants by the cyclone of November 1891 and the subsequent high floods of July 1892. In the Sujamutha portion of the Raj estates, which has recently been settled under the Tenancy Act, it is observed with satisfaction that the collections were better than in any of the other parts, being 129.6 per cent. on the current demand as against 99.7 in the Raj estates as a whole, and as against 91.1 in Sujamutha itself during the previous year. As the greater portion of the rental is realised from patni tenures, the management charges amounted to 3.4 per cent. only of the current rent and cess demand. The construction of a Raj office building at an estimated cost of Rs. 1,14,170 was undertaken during the year. A satisfactory reduction was made in the charges paid to mukhtears employed by the estate, as expenses of identifying defendants, debtors, &c, in pending cases. The Commissioner has directed that such identification should in future be made by local zamindars and village agents.

10. The whole of the demands due to Government and superior landlords by the Tikari Estate, amounting to Rs. 2,55,949 and Rs. 46,525 respectively, was paid. The collections amounted to Rs. 7,41,769, out of a current demand for rent and cesses of Rs. 7,44,724, and an arrear demand of Rs. 6,49,120. The Board agree with the Commissioner in thinking that the collections cannot be called satisfactory, as the arrears have rather increased than diminished in spite of the fact that the outturn of crops was a very fair average one. The Lieutenant-Governor concurs in this view. If the arrears increase instead of being reduced in a fair average year, there can be little prospect of their being ever realized in full, and the Officiating Lieutenant-Governor is glad to notice that measures are being taken to strike off such of them as are bad and irrecoverable. Owing to the reorganization of the managing staff, the management charges rose from 12 per cent. to 13·4 per cent. on the current demand. Rupees 13,826 were spent on improvement other than gilandazi works, and Rs. 50,099 were invested in the purchase of landed property.

11. In the Dighapattia estate the entire demand due to Government and superior landlords by the eldest as well as the younger ward's estates was paid, with the exception of Rs. 62, payable in small sums to some of the landlords on account of the eldest ward's estate. The collections in the latter were satisfactory, being 102·4 per cent. of the current demand, amounting to Rs. 4,93,356, against 98·8 per cent. in the previous year; but in the younger ward's estates the collections fell from 109 per cent. in 1891-92 to 98 per cent. only on the current demand in 1892-93. This is mainly due to the general failure of crops throughout the Hooghly division of the estate. In the elder ward's estate the cost of management has slightly increased being now over 15 per cent. of the current demand, a rate which the Lieutenant-Governor condemned as excessive in last year's Resolution. The Board's report shows laxity on the part of the management in realizing debts due to the younger ward's estate, and the Manager should be called upon for an explanation. The outlay on works of improvement by the eldest ward's estate amounted to Rs. 22,865 against Rs. 10,052 in the preceding year. These works consisted of the excavation of tanks, the construction of pucca ghats, re-excavation of khals, digging of wells, construction and repairs of roads, raising of low lands, construction of sluice gates, and some agricultural improvements. The estate also paid Rs. 8,284 out of a total sum of Rs. 12,552 to be paid by it for the construction of a new building for the Dighapattia school.

12. The settlement of pargana Sarail, appertaining to the Kasimbazar estate in Murshidabad, was completed in October 1892. The collections were 93 per cent. on the current demand against 123 per cent. in the previous year, the falling off being attributed mainly to scarcity in pargana Sarail. It is unsatisfactory to find that the cost of management which was already high increased from 16·9 per cent. to 17·1 per cent. An Assistant Engineer on Rs. 150 a month has been appointed tentatively for two years for supervising works of improvement in the several districts in which the estate is situated, and Rs. 30,781 as against Rs. 11,341 in the previous year were spent on works of this class which mostly consisted in the excavation and re-excavation of tanks. The District Engineer has been appointed also tentatively on a monthly remuneration of Rs. 100 to supervise the construction and repairs of buildings of the estate in the Murshidabad district. The financial position of the estate is satisfactory and reflects credit on the manager.

13. The balance of debt due by the Deo Estate stood at Rs. 7,28,667, including Rs. 2,83,591 due to Government, and Rs. 2,72,000 due to Babu Kameswar Prasad under an usufructuary mortgage deed, the terms of which are highly objectionable. Government has, since the close of the year, sanctioned a loan of Rs. 2,72,000 to enable the estate to rid itself of this debt.

14. The Sankarpur and Maldwar estates were lately settled under the Bengal Tenancy Act. In the preceding year the collections in the former amounted to 85 per cent. on the current demand, but during the year 1892-93 they rose to over 100 per



cent. In the Maldwar estate the collections in 1891-92 were only 63 per cent. of the current demand, but in the year under report they improved to over 110 per cent., inclusive of a sum collected within the year, but not remitted to the treasury within the year. These estates, as remarked by the Board, show a great improvement in collections as compared with the previous year.

15. Altogether eight new estates were taken charge of during the year.

This number included the Chanchra estate in Jessore, the management of which was undertaken by the Court of Wards under direction of the District Judge of Jessore under section 95 (a) of the Bengal Tenancy Act VIII of 1885. The estate is jointly owned by two shareholders who were of age, and the four minors of a third, the latter having died before the Court of Wards intervened. Each of the shareholders had separate liabilities to a considerable amount, but one of them was hopelessly involved. The only way of saving the share of the latter was by raising a loan on the entire estate, but to this the other shareholders objected. The Court of Wards, under the circumstances, withdrew from the management, upon which the District Judge appointed a common manager under section 95 of the Act. Five estates were released, of which the most considerable was the Narhan estate in Darbhanga, with a rent-roll at the time of assumption of charge by the Court of Wards of Rs. 1,44,880, and debts which, including zar-i-peshgi leases to the extent of Rs. 1,12,296, amounted to Rs. 5,31,056. The gross total amount of debts due by the estate during the 15 years it was under the Court of Wards' management was Rs. 10,15,668, the whole of which was satisfied, leaving a surplus at the date of discharge of Rs. 1,52,186. The rent-roll, when the estate was released, was Rs. 1,83,352 or Rs. 38,472 more than the initial rental. The remaining four estates were petty ones. In one case only was the original rental reduced at the date of discharge, the reduction being attributed to sales of portions of it for liquidation of debts. In all other cases there was a substantial increase in the rental and an accumulated surplus at the date of discharge.

16. The number of estates managed during the year under the Chota

Encumbered estates in Chota Nagpur Encumbered estates Act (VI of 1876) was 55, being 4 less than in the preceding year. The demand, collections and balances for 1892-93 are shown in the following statement :—

District	Arrear demand	Current demand	Collections	Percentage of collections on current demand	Rentions.	Balances	Advance collections on account of the ensuing year
1	2	3	4	5	6	7	8
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.
Hazaribagh	52,580	95,212	88,384	92.8	17,302	42,106	6,331
Lohardaga	69,911	92,740	94,351	102.2	10,935	57,025	20
Palamu	3,026	15,160	13,124	87.8		4,862	
Singbhum	1,51,396	84,811	79,112	93.2	1,913	1,55,782	42
Manbhum	24,494	93,238	88,489	94.9	1,039	28,192	24
Total	3,01,137	3,80,659	3,63,610	95.2	30,489	2,87,967	6,417

17. The following statement shows the progress made in the liquidation of debts in these Estates :—

District	Due at the commencement of the year	Ascertained and incurred during the year.	Total	Payments	Reductions by compromise	Balance due at the close of the year
1	2	3	4	5	6	7
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Hazaribagh	6,81,618	23,944	7,04,957	53,128	2	6,51,832
Lohardaga	2,49,375	8,882	2,58,207	33,212		2,24,995
Palamu	98,041	35,111	1,33,152	11,498	96	1,21,658
Singbhum	2,02,526	6,896	2,09,422	31,877		1,77,545
Manbhum	2,20,965	14,688	2,35,653	17,596		2,18,057
Total	14,52,520	88,871	15,41,391	1,47,286	98	13,94,007

Want of funds due to various causes appears to have prevented the due execution of the approved scheme of liquidation in many estates. From the Commissioner's remarks quoted by the Board, there appears to be an inherent tendency in the landlords of Chota Nagpur to run into debt, and many of them contract debts even while their estates are under Government management, the result sometimes being that a proprietor whose estate has been released, freed from the original encumbrances finds himself almost immediately under the necessity of again applying for the protection of the Act. The Commissioner thinks that the operation of the Act is of doubtful utility to the community at large.

18. The Officiating Lieutenant-Governor congratulates the Board of Revenue on the very efficient manner in which they discharge their duties as a Court of Wards, and on the good results which they obtain with almost unbroken uniformity. The names of those officers whom the Board have singled out for favourable mention will be reported to the Appointment Department as usual.

By order of the Lieutenant-Governor of Bengal,

M. FINUCANE,

*Offg. Secretary to the Govt. of Bengal.*

RESOLUTION ON THE ANNUAL GENERAL ADMINISTRATION REPORT  
OF THE BURDWAN DIVISION FOR THE YEAR 1892-93

GENERAL DEPARTMENT.—MISCELLANEOUS No. 2660.

*Calcutta, the 14th November 1893.*

RESOLUTION.

Read—

The Annual General Administration Report of the Burdwan Division for the year 1892-93.

Read also—

The Annual General Administration Report of the Burdwan Division for the year 1891-92, and the Resolution recorded thereon.

The Burdwan Division had the advantage of being in charge of one officer, Mr. Power, throughout the year. There were changes of officers in charge of all the districts of the division with the exception of the district of Burdwan. It is the desire of Government to avoid constant changes in divisional and district appointments, but circumstances from time to time render transfers of charge unavoidable.

2. The Commissioner and the District Officers, with the exception of Mr. Grant, of Birbhum, who has retired from the service, and the Sub-divisional Officers were on tour in their respective jurisdictions for the period prescribed in Government Resolution No. 398T.G., dated 17th October 1891. All district offices and all treasuries, with the exception of that at Hooghly, which was under inspection by the Collector at the time of his visit, and all the sub-divisional offices were inspected by Mr. Power. All the Collectors, except one, also inspected their own offices and treasuries, and their respective sub-divisional offices and treasuries during the year. These inspections did not bring to light any serious irregularities; the offices were all found in fairly good order.

3. Last year the weather was most unfavourable; the rainfall was not so much remarkable for its scantiness as for its uneven distribution, resulting in the partial failure of crops in some parts of the division. The mischief was greatest in the north and centre of Bankura, in the south of Midnapore, centre of Hooghly and parts of Howrah, and it was least in Birbhum, where the outturn was 16 annas. Irrigation from canals saved much of the winter paddy on lands near them. These partial failures of crops have not told much upon the general health of the people, as indicated by the mortuary returns of the division, the death-rate being less than in the previous year in all the districts except Burdwan, where the climate has been exceptionally bad of late, but they checked to a certain extent the general advance of prosperity in most of the districts, and caused some distress in particular localities. Test relief works were opened in the affected tracts, but they failed to attract any considerable number of labourers. Temporary migration and private employment, stimulated by advances under the Land Improvement Acts, provided sufficiently for those in real need. Mr. Grierson, Collector of Howrah, gives the following glowing description of the condition of the people in his district:—

“Never, he says, in my whole Indian experience have I seen so well-to-do a class of people as that which forms the population of the district. I remarked on this in my last report. Then I had just come from the poorest district in the province to one of the richest, and the contrast was striking.

“My tours have emphasised this experience. I have not served in Eastern Bengal, but I know Central and Northern Bengal and Bihar pretty well, and in none of them have I seen the prosperity which forces itself upon the attention in Howrah.

“The reasons are equally obvious: a fertile alluvial soil and close proximity of a great city, which provides not only a ready market with high prices for the products of cultivation, but also employment at good wages for the landless members of the community. It literally reminds me of the fabled state of prosperity celebrated by Indian poets in the reign of King

*Dillipa*, when even the 'name of theft' was forgotten. Petty offences against property are few, and those which do occur are, as a rule, committed by impecunious foreigners who come from distant parts of the country to annex a share of those worldly goods which have been provided in such abundance. The people of the district are honest, for they have no temptation to steal. In one of the larger towns of the district I found that the people prided themselves on leaving things lying about in the streets and their shops open and unguarded."

But even in this Arcadia, "where men are so good or so cold as not to be tempted by gold," some vanities and weaknesses assert themselves. Mr. Grierson writes that:—

"Schools are plentiful and popular, English knowledge is eagerly sought after, women never work in the fields, dresses are clean, made of good cloth, and are invariably accompanied by that symbol of respectability (what a top hat is to an Englishman)—the umbrella. Finally, material comforts are appreciated. The English '*chota hazri*' is firmly established in the meanest village. A morning ride shows each family squatted round a low table drinking tea, well seasoned with plenty of sugar. So also the 'doctor' is everywhere present. Each large village has its two rival medical halls—one allopathic and another homœopathic—with perhaps a third, whose proprietor with noble eclecticism practices both branches of the healing art, and gives his patient a choice of treatments. Doctors may mean disease, but they certainly do mean the presence of a body of patients sufficiently well off to support the practitioners."

In the Division generally, public health was satisfactory. Fever was less virulent in all districts, and small-pox occurred to a less extent than in the previous year in Midnapore, Burdwan, and in part of Bankura among the Sonthals who refused to accept vaccination. Cholera, attributed to defective water-supply and to pilgrims returning from gatherings, prevailed more or less in all the districts. Sanitation, it is reported, was not properly attended to either by the District Boards or the Municipalities. The negligence of some of the Municipalities in regard to sanitary precautions, especially that of Ghatal, is said to be extremely culpable.

The wage of a common agricultural labourer varied from three annas per day in Bankura to five annas in Howrah, and was generally about four annas.

4. Owing to successive bad harvests during the last two years, the export of rice and paddy fell off in the districts of Burdwan, Bankura and Midnapore. There was also a decrease in the export of rice from Birbhum, but it had to a certain extent been counterbalanced by a larger export of paddy from the district. In Bankura the outturn of cocoons greatly fell off owing to the crippled means of the people brought about by successive failures of crops. But it was not so in Birbhum, where the trade in this article was brisk. Indigo industry is declining both in Burdwan and Bankura. In Midnapore the outturn was exceptionally good. Paper Mills at both Bally and Raniganj are fast supplanting the native industry in the Division. Owing to the rise in the price of European piece-goods in consequence of the fall in exchange, the manufacture of cotton cloth in the Division has increased. But the stimulus is only a temporary one, and the days of this industry are numbered.

5. Several administrative changes of greater or less importance were introduced during the year. The provisions of the Steam Boilers and Prime Movers Act were introduced in the town of Burdwan. The Barakar Iron Works, the Raniganj Paper Mills and the Pottery Works were brought under the operation of the Indian Factories Act. A uniform thanawari rate of chankidars' pay was introduced into villages where Act VI (B.C.) of 1870 was in force. The charge of Provincial civil works was transferred to the District Board. Vaccination work was transferred to the Civil Surgeon. The collection of the zamindari dâk cess was transferred to the Collector. The provisions of Act XI of 1892 (Prevention of Cruelty to Animals) were extended to the town of Contai in Midnapore and to all Municipalities in the district of Hooghly.

6. The following table shows the work of the civil courts during the year:—

Civil Justice.

District.	Sub-division or shauki.	Description of Court.	Number of officers.	NUMBER OF ORIGINAL CASES DISPOSED OF.		DETAILS OF CASES IN COLUMNS 6A AND 6B.			Number examined.	Rate of witnesses detained over two days, per cent. of witnesses examined.	Rate of cases pending at end of year, per cent. of cases disposed of.
				Ordinary.	Small Cases Court.	Money.	Rent.	Title.			
1	2	3	4	5A	5B	6	7	8	9	10	11
Burdwan	Sadar ...	Munsif ...	3	8,216	598	1,409	1,890	515	5,318	31	17
	Kalna ...	Do. ...	1½	2,238	863	1,404	1,486	261	8,604	17	11
	Kutwa ...	Do. ...	2	3,035	648	1,277	2,004	402	7,385	18	18
	Raniganj ...	Do. ...	1½	1,423	358	1,087	796	298	3,837	23	20
	Bud-Bud ...	Do. ...	1	1,452	233	531	878	273	1,584	33	13
Bankura	Sadar ...	Munsif ...	1½	3,086	384	1,308	2,378	334	4,012	33	12
	Vishnupur ...	Do. ...	1	1,877	211	671	1,147	270	2,167	23	23
	Kotulpur ...	Do. ...	1½	1,337	.....	509	589	230	2,284	21	35
	Khatra ...	Do. ...	1	1,635	.....	574	893	158	1,077	4	28
Birbhum	Sadar ...	Munsif ...	1½	1,167	253	545	671	194	2,183	10	12
	Kampur Hat ...	Do. ...	1½	2,574	742	1,239	1,698	380	3,190	15	18
	Bolpur ...	Do. ...	1½	1,569	355	657	970	297	3,171	38	25
	Dubrajpur ...	Do. ...	1	944	106	366	487	197	2,627	51	21
Hooghly	Sadar ...	Munsif ...	2	2,814	.....	1,019	1,517	287	4,248	16	18
	Serampore ...	Do. ...	3½	4,270	.....	281	3,235	754	4,918	12	11
	Jahanabad ...	Do. ...	2½	3,300	806	1,663	2,009	653	5,206	44	16
Howrah	Sadar ...	Munsif ...	3½	2,939	547	1,501	1,000	376	5,109	17	23
	Uluberia ...	Do. ...	1½	2,059	377	864	1,385	237	3,271	48	25
	Amta ...	Do. ...	2	2,109	465	1,025	1,265	281	4,885	20	13
Midnapore	Sadar ...	Munsif ...	4	5,273	2,917	3,707	3,901	582	7,086	13	13
	Garbheta ...	Do. ...	1	1,683	445	872	1,327	79	3,239	15	18
	Tamluk ...	Do. ...	3	4,305	1,339	2,077	3,149	418	6,144	18	9
	Contai ...	Do. ...	3	4,169	1,477	2,715	2,375	536	7,211	17	16
	Ghatol ...	Do. ...	2	1,761	1,161	1,541	1,156	225	3,092	6	15
	Dantan ...	Do. ...	1	1,700	428	1,514	694	146	2,073	21	16
Total			46½	63,066	14,712	30,022	39,373	8,374	100,814	21	16
*Total for 1891-92			51½	59,172	18,291	32,836	36,629	7,948	123,917	15	22

\* This total includes the figures of Judges and Sub-Judges.

† These figures show the number of witnesses who attended.

There has been an increase in ordinary, rent, and title suits. The increase in money and rent-suits may be attributed to bad harvests during the past two years, which prevented the poorer classes from meeting their obligations. The number of witnesses detained over two days was very large, being 21 per cent. of the total number examined, while in the Uluberia and Jehanabad Munsifs' Courts it was as high as 48 and 44 per cent., respectively.

7. Cognizable crime also increased, the number of cases being 17,917 in 1891, while in the last year it rose to 20,567. Every district shows an increase, the chief reasons assigned being bad harvests and the disorganised state of the rural police. In Midnapore the Magistrate and District Superintendent of Police were satisfied that crime was being suppressed by the Police, and their exertions to prevent suppression resulted in an increase of recorded cases. In Hooghly nuisance cases swelled the list, but if they be excluded, there was a slight decrease.

There was a slight decrease in the figures for non-cognizable cases. They were 20,148 in the last year against 20,351 in the previous year. Last year there was a decided improvement as to the number of remands in criminal cases. The percentage of cases adjourned more than six times fell from 3·4 to 1·4, while over 52 per cent. of them were disposed of at the first hearing. There was also decrease in bad livelihood cases.

Notwithstanding the supposed suppression of reports on unpromising cases in Midnapore, it is stated that the police force in the Division generally conducted itself fairly well. With the paucity of officers and increase in the number of dacoity and gang robbery cases, great difficulty was experienced in complying with the Inspector-General's Circular No. 6 of February 1892, which directed that the investigation of such cases should be invariably supervised on the spot by sub-district police officer. The Commissioner has the following remarks on the chaukidars:—

"All the Magistrates are of opinion that Act VI chaukidars now give satisfaction and are regularly paid.

"With reference to chakran chaukidars, Mr. Williams considers their abolition necessary for efficient police administration. The continued prevalence of high prices is leading to the extinction of "darmashukara" chaukidars and to the gradual substitution of Act VI men. Mr. Windsor, the present

Officiating Magistrate of Bardwan, writes that 'the chakran chaukidar is, as a rule, hand-and-glove with the dacoits and burglars. He is generally badly off, and is becoming more so year by year. His predecessors and he himself have sold, leased and mortgaged the service lands and diminished the income thereof.' Attempts are being made to improve their condition by not filling up appointments where there are more chaukidars in a village than the ratio of 1 to 60 houses would warrant, and dividing the lands thus vacated among those remaining.

"The Magistrate of Bankura writes that the Regulation chaukidars in the south get a mere pittance of 8 annas or a rupee a month, and now in a time of scarcity they can hardly collect even that; the people there are said to be too poor to pay adequate salaries.

"The Magistrate of Birbhum is taking steps for the gradual introduction of Act VI, but he complains of being 'harassed by constant enquiries about chakran lands,' as he has no record of the boundaries of such lands held by each chaukidar.

"There are over 5,000 Regulation and chakran chaukidars in Midnapore; their reorganization is desirable.

"Mr. Duke, Magistrate of Hooghly, writes:—'Police work is now so exacting that a chaukidar who has his chakran lands to cultivate has not time to do the zamindar's mal work. Hence most chaukidars are under the thumb of the zamindar, who has no trouble, when occasion arises, in proving that the chaukidar does not perform his mal duties. Consequently, whenever there is any difference of opinion between the police and the zamindar, and the chaukidar obeys the police, the zamindar can, and I am sorry to say constantly does, revenge himself on the chaukidar by suing him for the non-performance of mal duties.

'I have left no stone unturned to support the chaukidars, but Government is no party to these suits, and, so far as I have gone, I have only been strengthened in the conviction that the sooner we can extricate ourselves from the system of two masters, the better. I therefore make it a settled policy on all possible occasions to introduce Act VI (B.C.) of 1870.'

"In contrast with the above condemnatory remarks against chakran chaukidars, it is only fair to quote what Mr. Grierson says of their work in Howrah:—'Wherever I have gone on tour, the chakran chaukidars were certainly the best. They were the best set up, the best at work, the most obedient, and the most regular in attendance at parades. They are well-to-do men, and their holdings are so valuable that they cannot afford the luxury of disobedience with dismissal as its result.

'Whatever the chakran chaukidar's duties to the zamindar may be, I do not know; but I do know that, as a question of practical police administration, I as Magistrate get all that I want out of them.'

"It would appear that the service tenures are larger and zamindars less exacting in Howrah than in Hooghly: the chaukidars themselves are far more intelligent in the former district; in the latter they belong mainly to the semi aboriginal classes, some of whom are described as little better than savages. From the number of appeals against dismissals by chakran chaukidars (there were 28 to me last year), it is evident that their tenures are valuable and coveted."

Of 361 persons committed for trial in Sessions Courts, 217, or nearly 60 per cent., were convicted against 232 commitments and 94 convictions, i.e., 40 per cent. in 1891. The result was good in Bankura and Howrah, but not so in Bardwan.

The following statement shows the work of the criminal courts in the Division by districts:—

District.	Subdivision.	Class of officers.	Number of officers.	Cases disposed of.	Persons disposed of.	Ratio per cent. of persons convicted to disposed of.	Number of witnesses examined.	Ratio per cent. of witnesses detained over two days to total number examined.	Ratio per cent. of decisions confirmed on appeal to total appealed.	Number of cases disposed of.	Number remanded six times and more.	Average number of witnesses examined by each officer.	Average number of witnesses examined in each case.	Ratio per cent. of column 12 to column 11.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Burdwan	Sadar	Stipendiary	7	1,516	2,032	63.9	4,506	2.9	58.7	269	19	216	3.0	7.9
	Raniganj	Ditto	2	634	1,091	68.1	2,330	3.4	62.0	283	1	347	3.3	63
	Kutwa	Ditto	1	570	798	88.7	1,376	7	64.0	167	4	570	2.6	8.5
	Kalna	Ditto	2	311	530	66.8	1,622	1.9	46.8	162	.....	170	4.7	.....
Bankura	Sadar	Ditto	4	709	1,118	68.0	3,665	8.1	70.6	284	28	177	6.0	9.8
	Vishnupur	Ditto	2	496	727	67.2	3,101	4.0	63.0	160	12	248	6.3	8.0
Birbhum	Sadar	Ditto	3*	1,117	1,610	69.3	3,505	3.4	58.1	275	6	373	3.1	2.1
	Rampur Hat	Ditto	2	459	627	64.9	1,589	4.4	38.5	171	2	219	3.0	1.1
Hooghly	Sadar	Ditto	4.5	1,229	1,263	57.0	3,378	3.1	50.7	245	5	200	3.6	2.0
	Serampore	Ditto	2.5	1,321	1,725	57.8	3,355	5.0	84.1	232	7	481	2.5	2.3
	Jahannabad	Ditto	12	238	419	61.8	1,163	6.3	48.1	41	1	238	4.0	8.2
Howrah	Sadar	Ditto	4	2,345	3,570	75.0	1,175	1.3	83.8	467	22	586	2.2	4.7
	Ulubaria	Ditto	1	611	802	71.3	2,121	1.4	82.8	184	1	641	3.7	5
Midnapore	Sadar	Ditto	62	1,783	2,515	63.6	5,649	1.2	80.7	543	1	207	3.1	7
	Contai	Ditto	24	1,391	1,083	53.2	1,936	6.7	51.6	931	17	618	3.0	2.4
	Ghatul	Ditto	1	947	1,236	62.8	1,568	1.5	21.8	35	4	947	1.4	11.4
	Tamluk	Ditto	2	972	1,217	44.2	2,804	3.2	43.5	206	2	496	2.8	9
Total for 1892-93			49	16,511	23,671	64.1	55,142	3.5	58.7	4,413	185	537	3.1	3.2
Total for 1891-92			41	15,542	21,646	60	75,933*	5	60	4,173	292	679	5	6.9
Burdwan	Sadar	Honorary	20	2,171	2,236	87.7	1,732	4.0	25	.....	.....	620	7	.....
	Raniganj	Ditto	3	533	562	86.2	674	1	66.6	.....	.....	177	1.2	.....
	Kutwa	Ditto	6	347	431	59.8	743	5.9	50	.....	1	123	1.9	100
	Kalna	Ditto	8	382	330	82.3	625	5.9	15.3	1	.....	127	1.6	.....
Bankura	Sadar	Ditto	14	136	198	47.4	435	11.7	100	10	2	90	3.2	10
	Vishnupur	Ditto	1	114	121	34.7	204	31.8	60	.....	.....	114	1.8	.....
Birbhum	Sadar	Ditto	1	435	454	71.1	407	.....	28.5	.....	.....	435	1.1	.....
	Rampur Hat	Ditto	1	50	71	36.9	141	.....	.....	.....	.....	50	2.6	.....
Hooghly	Sadar	Ditto	7	490	549	69.9	581	4.6	87.5	4	.....	70	1.2	.....
	Serampore	Ditto	9	1,012	1,061	81.7	1,574	4.4	60	3	.....	112	1.5	33
	Jahannabad	Ditto	3	252	301	24.9	86	14.8	61.2	72	20	84	3.4	28
Howrah	Sadar	Ditto	3	4,247	4,458	89.2	4,018	2.5	71.4	1	.....	1,415	9	.....
	Ulubaria	Ditto	1	60	60	78.2	123	6.5	100	.....	.....	80	2.0	.....
Midnapore	Sadar	Ditto	3	278	351	45.0	462	6.7	60	.....	.....	92	1.6	.....
	Contai	Ditto	1	168	207	24.6	43	11.4	60.6	.....	.....	168	2.5	.....
	Ghatul	Ditto	3	322	355	75.7	91	.....	.....	.....	.....	107	1.2	.....
	Tamluk	Ditto	3	472	508	45.4	1,157	10.3	57.1	.....	.....	177	2.4	.....
Total for 1892-93			104	11,509	12,415	77.2	14,676	5.5	56.9	101	24	231	1.2	24
Total for 1891-92			36	10,900	12,045	71	22,842*	6	61	98	19	303	2	19

\* These figures show the number of witnesses who attended.

N.B.—A fraction indicates that an officer was employed for a fractional part of the year.

Taking Stipendiary Magistrates first, 49 officers disposed of 16,511 cases, the number of cases disposed of by each being on an average 337. The largest amount of work was done in the Midnapore district (specially at the Sadar and Contai subdivision), and in Howrah, Burdwan, and Serampore. The average number of witnesses examined in each case was 3.1. The number of police cases disposed of was 4,413, of which 135, or 3.06 per cent., were remanded six times or more.

The number of cases disposed of by 49½ Honorary Magistrates was 11,509, against 10,900 in 1891 by 36 officers. District Magistrates generally commend the work of the Benches.

8. From the statement given below it appears that the attendance of the Honorary Magistrates was on the whole fairly good, though there is still much room for further improvement. Mr. Power, agreeing in this with the Commissioner of Patna, recommends that Honorary Magistrates should be appointed in future only for a term of years, so that habitual absentees need not be re-appointed and Honorary Magistrates may be saved from the disgrace of removal, and District Magistrates from the unpleasant duty of severely criticising assistance voluntarily given:—

DISTRICT.	Number of Honorary Magis- trates.	Number of times asked to attend.	Number of times actually attended.	NUMBER OF ABSENCES—		
				With leave or notice.	Without leave or notice.	Total.
1	2	3	4	5	6	7
Burdwan ...	153	2,969	1,574	236	1,159	1,395
Bankura ...	33	462	294	21	147	168
Birbhum ...	26	378	271*	47	52	99
Hooghly ...	108	2,697	2,009	283	405	688
Howrah ...	79	1,663	1,161	94	348	442
Midnapore ...	105	2,557	1,555	256	746	1,002
Total ...	504	10,666	6,864	937	2,857	3,794

\* Less attendance of 8 days.

## 9. The following table shows the results of Sessions trials:—

DISTRICT.	Number of cases committed, but pending at commence- ment of year.	Number committed during the year.	Total number for disposal.	Number disposed of.	Number in which conviction obtained.	Number of cases in which sen- tence was modified or re- versed by High Court.	Number of cases acquitted by Sessions Judge.	Number of cases otherwise dis- posed of.	Percentage of cases resulting in conviction to total cases disposed of.	REMARKS.
1	2	3	4	5	6	7	8	9	10	11
Burdwan ...	2	23	25	24	12	1	11	1	50°	
Bankura ...		34	34	31	22	5	9	.....	70°9	
Birbhum ...	4	14	18	13	9	3	3	1	68°	
Midnapore ...	9	51	60	53	40	.....	6	7	75°4	
Hooghly ...	6	16	22	19	14	.....	5	.....	73°6	
Howrah ...	3	21	24	22	10	.....	4	2	72°	
Total for the Division ...	24	129	153	162	113	9	38	11	68°7	
Total for the Division for 1891	.....	157	157	.....	89	9	68	.....	.....	



10. The amount of fines imposed, remitted and collected is given below :—

DISTRICT.	Balance outstanding at commencement of the year.	Amount imposed during the year.	Total demand.	Amount collected during the year.	Amount remitted or written off during the year.	Total collected and remitted.	Balance outstanding at the end of the year.	REMARKS.
1	2	3	4	5	6	7	8	9
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Burdwan	4,145 5 2	18,793 3 6	22,938 8 8	13,808 10 9	2,453 0 0	16,355 10 9	6,085 13 11	
Bankura	2,583 11 6	10,763 5 0	13,347 6 6	8,507 8 0	1,750 1 3	10,258 9 3	3,089 7 3	
Birbhum	1,898 3 5	6,114 14 6	11,012 11 1	9,030 0 0	1,228 2 3	10,258 2 3	1,754 9 8	
Midnapore	8,935 13 5	16,212 15 0	41,148 12 5	24,348 2 2	4,110 10 0	31,458 12 2	11,550 0 5	
Hooghly	6,061 10 9	7,831 6 9	13,895 1 6	15,611 15 6	2,005 2 3	18,616 1 9	5,285 15 9	
Howrah	6,917 0 0	8,513 0 0	25,430 0 0	17,028 3 5	1,200 4 0	20,215 7 5	5,184 9 1	
Divisional total	28,499 12 4	1,22,219 13 3	1,40,719 9 6	92,633 13 10	15,204 3 9	1,07,898 1 7	32,831 7 11	
Total for 1891-92	41,007 0 0	94,412 0 0	1,27,109 0 0	80,730 0 0	11,175 0 0	89,555 0 0	27,304 0 0	

In Birbhum, Hooghly, and Howrah the balance at the end of the year was less than at the beginning.

11. The registrations of the year under review exceeded those of 1891-92 by 25,825. The following table gives the figures for each district :—

DISTRICT.	Class of Registration Office.	Number of offices	Number of documents registered.	Average per office.
1	2	3	4	5
Burdwan	Special ...	1	4,228	4,228
	Rural ...	12	29,901	2,492
Bankura	Ex-officio sub	1	2,631	2,631
	Rural ...	8	19,623	2,453
Birbhum	Special ...	1	2,885	2,885
	Rural ...	4	12,886	3,221
Hooghly	Special ...	1	2,386	2,386
	Rural ...	9	24,562	2,729
Howrah	Special ...	1	6,875	6,875
	Rural ...	4	11,523	2,881
Midnapore	Special ...	1	4,615	4,615
	Rural ...	16	56,632	3,539
Grand total for 1892-93	Special ...	6	23,620	3,937
	Rural ...	53	155,127	4,432
Grand total for 1891-92	Special ...	6	20,586	3,431
	Rural ...	50	132,336	2,647

There was an increase in the number of documents registered from 152,922 in 1891-92 to 178,747 in the year under review, which the Officiating Lieutenant-Governor agrees in thinking to be due to the normal growth in popularity of the Registration Department.

During the year a new sub-registry office was opened at Chanditalla in the district of Hooghly.

12. The demand, collection and balance of land revenue, road cess, and zamindari dāk cess in each district are shown in the following table :—

Land Revenue.

District.	Class of demand.	Class of estates.	Number of estates.	DEMAND.		COLLECTIONS OF 1892-93.		BALANCE ON 1ST APRIL 1893.		REMARKS.
				Current.	Arrear.	Current.	Arrear.	Current.	Arrear.	
1	2	3	4	5	6	7	8	9	10	11
Burdwan	Land Revenue	I ... ..	4,816	Rs. 30,33,397	Rs. 68,781	Rs. 29,71,807	Rs. 9,771	Rs. 61,500	Rs. 10	Remitted Rs. 116. Ditto " 386.
		II ... ..	208	1,257	3,904	5,181	3,756	4,946	122	
		III ... ..	39	4,261	1,135	2,627	838	1,302	153	
		Total ...	5,063	31,63,915	73,880	29,70,615	73,565	67,028	245	
	Road Cess	Estates ...	5,587	3,39,446	44,486	3,13,616	28,457	22,830	15,070	* Includes Rs. 6,300, advance collection. † Includes Rs. 1,700, advance collections, and Rs. 847 on account of penalty.
		Rent-free tenures	22,116	20,195	57,321	3,429	23,080	16,775	34,132	
	Zamindari dāk	Estates ...	609	6,561	905	7,617	405	1,200	500	
		Total ...		34,10,117	1,76,442	33,04,268	1,26,310	1,07,923	60,806	
Bankura	Land Revenue	I ... ..	887	Rs. 1,06,853	Rs. 8,005	Rs. 4,50,343	Rs. 7,917	Rs. 6,400	Rs. 988	Remitted Rs. 1,350
		II ... ..	64	500	324	301	288	204	36	
		III ... ..	11	774	2,096	293	351	572	346	
		Total ...	962	1,08,127	11,325	4,50,936	8,556	7,270	1,410	
	Road Cess	Estates ...	1,529	71,882	12,125	60,661	9,161	8,221	3,354	Ditto " 407. † Includes Rs. 1,000, advance collection.
		Rent-free tenures	12,122	13,152	21,552	4,551	9,137	8,601	12,885	
	Zamindari dāk	Estates ...	502	4,787	544	4,356	370	601	174	
		Total ...		89,821	40,316	69,567	27,277	24,493	17,323	
Birbhum	Land Revenue	I ... ..	1,003	Rs. 10,63,126	Rs. 3,202	Rs. 9,95,455	Rs. 3,292	Rs. 7,974	.....	‡ Includes Rs. 3,073, advance collection.
		II ... ..	1	135	.....	183	.....	.....	.....	
		III ... ..	1	122	.....	181	.....	.....	.....	
		Total ...	1,004	10,63,383	3,202	9,95,729	3,293	7,975	.....	
	Road Cess	Estates ...	1,608	1,07,576	4,164	1,03,437	4,121	4,221	43	§ Includes Rs. 3,073, advance collection.
		Rent-free tenures	7,517	7,172	1,873	5,319	1,651	1,653	219	
	Zamindari dāk	Estates ...	641	4,232	51	3,227	51	605	.....	
		Total ...		12,38,980	6,088	11,66,210	9,029	11,454	262	
Hooghly	Land Revenue	I ... ..	3,667	Rs. 12,98,511	Rs. 7,010	Rs. 12,72,804	Rs. 7,010	Rs. 25,013	.....	Remitted Rs. 448.
		II ... ..	64	14,735	3,920	10,405	2,384	4,300	1,536	
		III ... ..	3-4	3,922	4,442	5,011	3,278	4,240	751	
		Total ...	4,635	13,40,168	15,372	13,12,314	12,672	34,249	2,287	
	Road Cess	Estates ...	5,529	7,10,141	82,785	1,40,643	66,812	63,408	15,073	|| Includes Rs. 1,215, advance collection.
		Rent-free tenures	28,906	.....	.....	.....	.....	.....	.....	
	Zamindari dāk	Estates ...	950	6,165	1,077	6,167	781	208	277	
		Total ...		13,86,406	84,869	14,68,153	80,268	68,015	18,587	Remitted Rs. 16.
Howrah	Land Revenue	I ... ..								Included in Hooghly.
		II ... ..								
		III ... ..								
	Road Cess	Estates ...								Ditto " 330.
		Rent-free tenures								
	Zamindari dāk	Estates ...	167	5,015	2,404	4,108	755	1,440	1,320	
		Total ...		5,015	2,404	4,108	755	1,440	1,320	
Midnapore	Land Revenue	I ... ..	2,700	Rs. 18,63,973	Rs. 28,062	Rs. 18,75,839	Rs. 27,769	Rs. 18,134	233	Ditto " 231. Ditto " 28,264.
		II ... ..	105	2,17,516	26,912	1,09,743	26,714	47,710	87,308	
		III ... ..	62	2,53,258	2,10,713	1,37,517	91,141	1,15,741	87,308	
		Total ...	2,867	21,34,747	2,65,687	21,83,099	1,48,623	1,81,615	87,641	
	Road Cess	Estates ...	4,312	2,82,829	73,305	2,05,337	56,203	77,086	17,113	Ditto " 485. * Includes Rs. 5,587, advance collection. Remitted Rs. 692. ** Includes arrear collection also.
		Rent-free tenures	27	140	92	68	63	72	20	
	Zamindari dāk	Estates ...	2,012	8,055	901	7,570	305	479	294	
	Embankment cess	.....	1,345	57,457	21,808	61,740	.....	16,914	.....	
		Total ...		27,13,228	3,61,613	24,57,829	2,05,105	2,76,196	1,01,970	
		GRAND TOTAL OF DIVISION.		9,55,795	6,95,330	88,66,073	4,47,730	5,32,557	1,93,317	Total remission Rs. 33,754.
		GRAND TOTAL FOR 1-91-92.		92,19,141	8,50,366	87,56,506	4,76,176	4,43,741	3,63,910	

Though there was an improvement in the collections as compared with those of the previous year, still the realisations did not generally reach the prescribed standard, except in Birbhum. Out of a total demand of Rs. 1,00,61,125 on account of land revenue, road cess, and zamindari dāk cess, current and arrear, Rs. 93,13,863 were collected and Rs. 33,734 remitted, the balance being Rs. 7,15,874 against Rs. 8,15,651 in 1891-92.

In permanently-settled estates the percentage of total Land Revenue collections on total demand reached the prescribed standard of 99 per cent. in Birbhum and Midnapore; and in Burdwan, Bankura, and Hooghly with Howrah it was above 98 per cent.

In temporarily settled estates the collections were far below the standard except in Birbhum where, however, the revenue from this class of estates is trifling.

In the case of Khas Mahals the realisations were also very bad.

13. The work of the Certificate Department is shown in the following

Certificates. statement:—

District	Department.	Number pending at beginning of year.	Number issued during year.	Total for disposal	Amount of certificates.	Number disposed of during year.	Amount realized.	Number pending at close of year.
1	2	3	4	5	6	7	8	9
Burdwan	General (arriars of revenue, pound-rate, takavi, amindari dak &c.)	232	1,099	1,281	Rs. 82,985	671	Rs. 8,774	610
	Court of Wards	1,004	311	1,322	54,601	939	8,985	184
	Cesses	18,655	2,845	19,500	1,19,518	9,331	31,457	8,187
	Total	19,891	4,255	24,146	2,07,243	10,641	54,216	9,181
	Total for 1891-92	3,284	1,118	4,402	2,01,797	2,671	48,382	15,545
Bankura	General	3,190	5,712	8,902	1,09,987	2,405	3,838	6,342
	Cesses	3,189	5,671	8,860	1,09,087	2,405	32,806	6,342
	Total for 1891-92	3,010	2,451	5,461	95,868	1,910	2,175	3,180
Birbhum	Road cess	240	921	1,161	11,512	970	8,560	187
	General	30	11	41	4,045	61	3,507	8
	Rampur Hat	12	17	29	59	47	511	—
	Total	280	999	1,279	16,088	1,092	12,763	195
	Total for 1891-92	140	818	958	18,007	670	15,379	250
Hooghly*	Cesses	3,568	7,154	10,722	77,481	8,605	59,481	2,114
	Drainage	87	7	94	9,940	85	7,400	8
	General (Court of Wards pounds, &c., &c.)	777	1,011	1,788	56,461	93	4,406	796
	Total	4,432	8,172	12,605	1,43,782	9,683	71,287	2,918
	Total for 1891-92	4,894	11,285	16,179	1,76,102	11,565	88,714	4,974
Midnapore	General, including arriars of rent, embankment dues, and water rates	2,086	8,081	10,167	1,58,075	5,848	77,600	4,319
	Cesses	1,551	2,897	4,448	1,06,140	2,143	98,013	2,305
	Court of Wards	2,140	2,214	4,354	1,33,086	1,008	20,803	5,354
	Total	5,786	13,192	18,978	3,96,800	8,999	1,96,505	9,978
	Total for 1891-92	10,229	11,441	21,670	4,70,861	15,786	2,02,040	5,786
GRAND TOTAL FOR 1892-93		29,581	32,156	61,737	8,71,985	33,122	3,07,317	25,615
GRAND TOTAL FOR 1891-92†		20,085	41,969	62,054	9,06,337	32,717	3,80,910	29,639

\* The Commissioner of Burdwan has included the statement of certificate of Howrah.

† (See).

‡ The grand total for 1891-92 includes the figures of Howrah.

The number of certificates pending from 1891-92 was 29,581; 32,156 were filed and 33,122 disposed of during the year, leaving 28,615 at the close of the year. The number instituted during the year decreased by more than 22 per cent., chiefly under head "Road and Public Works Cesses" in Burdwan and Hooghly. Certificates for water-rates in Midnapore also show a continued decrease. Owing to failure in the past to keep the records corrected up to date in the Majnamutha estates, recourse to the certificate procedure for realisation of rents has become impracticable, and arrangements have been made to sue in the Civil Courts instead.

14. There were no important settlements of Government estates in any of the districts of the Division. Settlements of the Pataspur temporarily-settled estate under the Bengal Tenancy Act and of the Burdwan Raj Khas Mahals were in progress during the year. The settlement of Sujamutha, except village Madakhali, was completed, and the Settlement Officer has submitted his final report to the Commissioner.

15. There are four drainage schemes in the Division, all—in the district of Hooghly, viz., Dankuni, Howrah, Rajapur and Amta. The original cost of the first project has been collected; its future maintenance charges, which have been capitalised, are under collection. Work in connection with the second and third projects has been completed, but collections have not yet commenced; the last is in the hands of the Public Works Department.

16. Out of Rs. 60,000 allotted to the Division for loans under the Land Improvement and Agricultural Loans Acts, only Rs. 29,140 were actually spent during the year. The reason assigned for failure to utilise the sanctioned amount was that the grant lapsed before the necessary enquiries could be completed. The Commissioner suggests either that these grants be made on a biennial or triennial estimate, or that they should lapse, not in the middle of the busiest season when enquiries are in full swing and urgency of demand greatest, but at the end of August, when work is over and the *bhado* crop coming in. The Commissioner's suggestion will be submitted for consideration to the Board of Revenue.

17. There were 11 estates in the Division under the Court of Wards against 10 in the previous year. The percentage of total collections on total demands (i.e., current demand and arrears) in the Burdwan Raj estates amounted to nearly 70 per cent., whilst the collections in the estates situated in the district of Midnapore were very low, varying from 21 to 61 per cent. The collections in the Burdwan Raj estates amounted to 99·7 per cent. on the current demand—a result which is satisfactory, considering the shortness of the harvests. The outstanding arrears in wards' estates in this Division are very heavy. It is bad policy to maintain on the books arrears which cannot be paid. The arrear accounts of estates should now be examined in detail, and all sums which are irrecoverable by legal process, or beyond the capacity of the raiyats to pay, should be remitted. The true policy to pursue in land management is to adjust the demand within the law, to the circumstances of each holding, and then to insist on punctual payment.

18. The most important excise statistics are included in the following statement:—

District	COUNTRY SPIRITS					GANJA AND BANG					OTHER			
	Number of shops	Licence fees	Gross sales	Total receipts	No. of persons	Licence fees	Gross sales	Total receipts	No. of persons	Licence fees	Gross sales	Total receipts		
1	2	3	4	5	6	7	8	9	10	11	12	13		
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		
Burdwan	79	30 22	15 876	74,045	77	22 113	8 1	40 21	74	10 40	5	62 148		
Dankuni	5	17 11	11 1	21 032	1	0 00		11 14	0	7 8	1	1, 829		
Howrah	28	8 7	6 95	15 873	1	12 17	11	21 730	3	7 71	2	2 601		
Hooghly	101	16 47	19 442	1 23 908	8	1 48	83	9 030	0	17 11	77	8 42		
Midnapore	11	1 319	4 321	33 115	14	7 14		1 33	8	7 0	31	31 42		
	13	58 539	1, 099	50,809	88	1 780	90	08	143	2 17	114	1, 5964		

Revenue from all sources		Rate per head of population	
	Rs.		Rs. A P
Burdwan	103 146		0 3 5
Dankuni	10 1		0 1 0
Howrah	100 16		0 3 9
Hooghly	71 86		0 4 1
Midnapore	1 101		0 2 1
	100		0 1 6
GRAND TOTAL FOR 1891-92		147	
GRAND TOTAL FOR 1892-93		100	17

The excise revenue rose from Rs. 9,65,155 in 1891-92 to Rs. 11,55,149 in 1892-93. The incidence of excise revenue is 2 annas and 4 pies per annum per head of population.

19. The following table shows the number of schools under public management in each district, the number of pupils, the incomes, with the sources from which the incomes are derived, and the cost per head of the pupils:—

Education

District	Class of schools	Number of schools	Number of pupils on rolls	Cost.						Cost per head of pupils.	Population.	Number of boys of school-going age	Percentage of boys at school to total boys of school-going age according to the Director's Report
				Provincial	District Board	Municipality	Fees.	Other.	Total.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Burdwan	High	14	2,377	Rs. 4,001	Rs. 2,268	Rs. 1,714	Rs. 617	Rs. 17,564	Rs. 41,189	Rs. 16,188	1,791,680	102,150	
	Middle	5	7,111	1,000	12,004	714	1,111	1,807	20,026	10,888			
	Primary	13	38,777	2,006	21,800	81	1,111	8,684	22,490	10,888			
	Total	13	48,265	7,007	33,800	91	1,000	26,255	83,695	37,964			
Bankura	High	0	1,100	3,110	316	1,110	1,383	9,027	28,006	23,138	1,000,646	78,801	
	Middle	41	1,018	1,133	7,271	45	1,137	4,771	27,787	8,888			
	Primary	1,411	31,100	7,788	15,363	781	3	13,181	61,144	1,143			
	Special	21	3	1,387	2	2	7	1,010	1,500	14,2			
Borthum	High	4	730	2,011	1,311	1,110	1,383	2,011	17,564	4,000	707,843	88,415	
	Middle	18	2,621	1,111	7,617	45	1,137	7,781	14,111	7,000			
	Primary	1	3	75	7,617	781	3	1,010	1,500	14,2			
	Special	1	27	143	2	2	7	1,010	1,500	14,2			
Hugobly	High	9	4,000	17,564	1,383	1,110	1,383	2,011	17,564	4,000	1,070,710	79,370	
	Middle	81	3,000	3,333	12,000	1,110	1,383	2,011	17,564	4,000			
	Primary	1,111	31,100	7,788	15,363	781	3	13,181	61,144	1,143			
	Special	21	3	1,387	2	2	7	1,010	1,500	14,2			
Howrah	High	18	8,011	1,111	8,410	1,383	1,110	1,383	2,011	17,564	721,211	117,333	
	Middle	5	730	2,011	1,311	1,110	1,383	2,011	17,564	4,000			
	Primary	7,781	21,100	7,788	15,363	781	3	13,181	61,144	1,143			
	Special	1	27	143	2	2	7	1,010	1,500	14,2			
Midnapore	High	11	1,811	1,111	11,000	1,110	1,383	2,011	17,564	4,000	2,631,511	106,213	
	Middle	8	730	2,011	1,311	1,110	1,383	2,011	17,564	4,000			
	Primary	4,511	31,100	7,788	15,363	781	3	13,181	61,144	1,143			
	Special	21	3	1,387	2	2	7	1,010	1,500	14,2			
Grand Total	High	60	14,000	37,000	872	7	1,383	71,878	2,30,000	2,114	7,088,818	770,084	
	Middle	130	24,000	8,123	20,000	400	1,383	2,011	17,564	4,000			
	Primary	10,900	31,100	7,788	15,363	781	3	13,181	61,144	1,143			
	Special	42	777	1,401	552	1	7	1,010	1,500	14,2			
Total for the Division		10,883	30,400	8,123	15,363	781	3	13,181	61,144	1,143			
Grand Total for 1891-92		10,023	28,387	8,000	15,000	781	3	13,181	61,144	1,143			

There has been a marked increase both in the number of schools and pupils as compared with the previous year. The total number of schools rose from 10,622 to 10,883, and the pupils from 253,87 to 300,400. The number of girls' schools increased from 287 to 370, and the number of pupils attending them from 7,662 to 8,024; besides 9,261 girls attended boys' schools. The increase was contributed to by all districts except Bankura and Howrah.

The number of Muhammadan pupils attending the different classes of schools in the division rose from 20,664 to 30,883; the number of pupils in Bankura and Howrah decreased.

The percentage of boys at school on the total number of a school-going age is 51.6, so that more than half the entire number of boys of a school-going age are at school. The Officiating Lieutenant Governor thinks that these figures are satisfactory and creditable to the local educational and district officers.

20. The following table gives statistics relating to dispensaries and hospitals:—

District.	Number of dispensaries.	INCOME FROM—					DAILY AVERAGE PATIENTS—		Ratio per cent. of outdoor patients to total population.
		Government.	District Board.	Municipality.	Subscriptions.	Total.	In-patients.	Out-patients.	
1	2	3	4	5	6	7	8	9	10
Burdwan ... ..	7	Rs. 1,223	Rs. 1,363	Rs. 6,701	Rs. 18,467	Rs. 27,778	67'9	362'7	4'4
Bankura ... ..	4	531	1,000	2,108	680	4,319	13'42	121'57	1'5
Birbhum ... ..	2	52	1,227	921	751	3,011	5'28	95'12	1'4
Hooghly ... ..	9	2,072	.....	5,637	16,161	23,260	68'8	265'71	3'7
Howrah ... ..	3	4,026	.....	4,015	10,431	18,372	81'61	143'76	3'2
Midnapore ... ..	13	1,337	873	8,660	6,801	17,980	39'74	503'98	2'5
Total ... ..	35	10,140	4,543	27,761	53,281	95,715	205'43	1,404'89	2'8

The ratio of the outdoor patients to the total population of the districts is very low in Bankura and Birbhum. The two Burdwan Raj dispensaries at Burdwan and Kalna and the Municipal dispensary at Burdwan are specially well spoken of. A female hospital has been established at Bankura.

21. District Boards on the whole worked satisfactorily and attendance was fairly good, but there was lack of keen interest in the administration on the part of the members in respect of which Mr. Duke, of Hooghly, writes as follows:—

Local Self-Government Institutions. "It would be unjust and ungrateful to complain of the apathy in the members, for I found them on all occasions most willing to assist me and anxious that business should be efficiently conducted; but at the same time I think there is an underlying sense that there is very little for the members to do. The Board in fact is so poor, its wants are so much beyond its income, that there is never anything new or popular to be done, and I think that after a certain experience of this damping fact, members come to feel that, where the income has obviously to be spent on only the most necessary and peremptory requirements, there is very little room for discussion, and most things may be left in the hands of the executive."

As members of Local Boards receive no travelling allowance, those who live at a distance do not attend regularly, but such duties as are delegated to these bodies are said to be performed with fair success. Mr. Grierson, as Chairman of the Howrah Municipality, acknowledges the sympathy and support he has received from the municipal members during the year. Since its close some difference of opinion in regard to sanitary improvements has arisen, but His Honour hopes that as both parties have the interest of the town at heart, these difficulties may be overcome in a reasonable spirit. Mr. Grierson raises a larger question by his recommendation that Howrah should be amalgamated with Calcutta to ensure the advantage of skilled supervision, for which it cannot now afford to pay. Burdwan, Raniganj, Kalna, Bankura, Vishnupur, and Suri were fairly well managed. In Midnapore the town itself was neglected. Ghatal was bad as regards drainage and drinking-water. Tanluk was improving. Hooghly was managed with general success. Bansberia was so mismanaged that an official Chairman had to be appointed. Serampore, as in the previous year, suffered from having had an absentee Chairman. The administration of Utterpara was good, but party spirit ran high, necessitating the resignation of an efficient Chairman. The spirit of faction also prevailed at Bally.

Public feeling. 22. On the state of public feeling, the Commissioner makes the following remarks:—

"The amendment of the Chaukidari Act, the Municipal Act Amendment Bill, and the Jury Notification agitated the minds of such members of the public as are imbued more or less with Western ideas; of the first we no longer hear anything; withdrawal of some contestable clauses of the second and entire withdrawal of the last pacified all who took any interest in the subject. Genuine public feeling can scarcely be said to exist; even in Hooghly, supposed to be one of the most advanced districts in Bengal, it is not a flourishing plant."

23. There is nothing of special comment under this head. In Burdwan the relations of zamindars and raiyats were generally satisfactory. In Hooghly and Howrah some zamindars endeavoured to raise by illegal means the rents of land benefited by the Rajapur drainage scheme. In Midnapore proprietors with one notable exception treated their tenants where crops failed with consideration.

24. The Lieutenant-Governor thanks Mr. Power for his administration of the Division, and notices with satisfaction the praise bestowed by him upon Messrs. Williams, Dutt and Grierson, among the Collectors, and on Babu Pran Kumar Das, Munshi Nundjee and Babu Jaga Bandhu Bhattacharjee, among Deputy Collectors. The report on the qualifications of officers will be communicated to the Appointment Department, intimation being given to the officers concerned in cases where seriously unfavourable remarks have been made.

By order of the Lieutenant-Governor of Bengal,

M. FINUCANE,

Offg. Secretary to the Government of Bengal.

**RESOLUTION ON THE ANNUAL GENERAL ADMINISTRATION  
REPORT OF THE DACCA DIVISION FOR  
THE YEAR 1892-93.**

GENERAL DEPARTMENT.—MISCELLANEOUS No. 2592.

*Calcutta, the 14th November 1893.*

**RESOLUTION.**

**READ—**

The Annual General Administration Report of the Dacca Division for the year 1892-93.

1. The report is submitted by Mr. Luttman-Johnson, who took charge of the Division as Commissioner in November last, a month and ten days after the date on which it was due. The office of Commissioner of Dacca was held by the late Mr. C. F. Worsley from the 1st April to the 21st May 1892, by Mr. T. L. Jenkins from the 22nd May to the 21st June, by Mr. H. G. Cooke from the 22nd June to the 1st November, and by Mr. Luttman-Johnson for the remainder of the year.

2. Of the officers who successively acted as Commissioner, Mr. Worsley spent 22 days, Mr. Cooke 35 days, and Mr. Luttman-Johnson 80 days on tour. All the district and subdivisinal offices and treasuries except Tangail were inspected by Mr. Luttman-Johnson, who remarks that he found very great room for reform in several directions and departments.

The Collectors of Faridpur and Backergunge were on tour for more than the periods prescribed for their respective districts. In Dacca and Mymensingh the tours fell short of the prescribed periods, the explanations furnished being that in the former district Mr. Jenkins was disabled by fever towards the close of the year, while in the latter Mr. Palit, who was in charge for nearly two months during the best part of the boating season, only spent nine days on tour—an insufficient proportion. The use of boats permits of tours in this Division being spread over a greater portion of the year—an advantage to which most officers are fully alive. Mr. Savage in Backergunge spent some days of every month and Mr. Jenkins in Dacca some days of eleven months on tour with very useful results. The tours of sub-divisional officers were all of the prescribed length.

3. The rainfall of the year, taking the Division as a whole, was in excess of the average of the previous five years by 1.36 inches, and was fairly well distributed, in Dacca the amount received was 2.44 inches below the average. The aus crop suffered in some districts from the too sudden rise of the water, and the boro from unusual floods, but the outturn of aman rice, the most important food-crop of the Division, was fully up to the average. Prices, however, ruled high—a fact which the Commissioner attributes to the increase of the area under jute and the consequent contraction of the food-stocks. The only classes adversely affected are those with small fixed incomes and wage-earners. The agricultural population continue to be prosperous, and artisans, except weavers, command high prices for their work and are well off. The daily wage of a common cooly is reported to be 4 annas a day in Backergunge, 5 annas in Dacca, while in Mymensingh it is said to vary from 2½ to 8 annas per day.

4. The total number of deaths registered was 251,839, against 234,157 in 1891-92, the ratio of deaths registered per mille of the population ranged from 12.38 in Mymensingh to 43.6 in Backergunge, the variations being caused for the most part by the different degrees of success attained in the registration of mortality. Mr. Savage is to be congratulated on the results in Backergunge, which indicate that considerable attention has been paid to this subject, while in Mymensingh the figures are not only worthless in themselves, but they are even worse than in the preceding year. The Commissioner is personally of opinion that the year was not unhealthy, the annual inundation having been in his opinion sufficient to cleanse the tanks and wells and replenish the water-supply, on which the health of the people chiefly depends. Fever is said to account for two-thirds of the deaths in the Division. Small-pox raged virulently in the Dacca town and district, causing 1,650 deaths.

It may be mentioned here that there is much room for improvement in the registration of births and deaths in municipal areas—a duty which was transferred to the police by the orders of December 1891, and which appears to be much neglected, especially in Mymensingh.

5. The only novel feature in the trade and commerce of the year is that common earthenware plates and dishes from Holland are now largely sold in this Division. The Commissioner writes:—

“The trade of the port of Narayanganj has not recovered the decline of 1891-92; indeed, there has again been a small decrease—about one per cent. Though there was an increased export of jute, there was a decrease in value. Less salt was imported, prices of this article at Chittagong ruling high. Jute business at Goalundo largely increased, while in oil-seeds business was very slack there.”

There was less rice exported from Backergunge than in the previous year owing, the Commissioner thinks, to the action of the raiyats in holding their stocks either with a view to obtaining higher prices or from fear of scarcity. A large business was as usual done in betelnuts and cocoanuts, the former being said to pay one-third of the rent.

6. Among administrative changes, the Commissioner mentions the following:—

“The Collector of Mymensingh has made a small but very radical change in the distribution of work among the officers attached to the Sadar station. He found that each officer did a little of everything. He found especially that where criminal judicial was combined with revenue and miscellaneous work, the former was apt to crowd out the latter. Accordingly he has set apart certain officers to do the criminal judicial work, and has confined them to this and the executive work inseparably connected therewith—police, chaukidars, arms, ammunition. I shall watch the result of this experiment with great interest. The Collector of Dacca is making similar arrangements.”

The Officiating Lieutenant-Governor desires the Commissioner to submit a special further report on the results of this experiment.

Civil justice.

7. The following statement shows the civil work of the Division during the year:—

DISTRICT.	Subdivision or chaudh.	Description of Court.	Number of officers.	NUMBER OF ORIGINAL CASES DISPOSED OF.		DETAILS OF CASES IN COLUMNS 5A AND 5B.				Number of witnesses examined.	Ratio of witnesses detained over two days per cent. of witnesses examined.	Ratio of cases pending at end of year per cent. of cases disposed of.
				Ordinary.	Small Cause Court.	Money.	Rent.	Title.				
1	2	3	4	5A	5B	6	7	8	9	10	12	
Dacca	Sadar	Munsif	4	3,835	6,494	7,747	1,816	750	12,764	14	17	
	Narayanganj	Do.	2	658	1,350	1,581	294	120	2,771	23	14	
	Kaliganj	Do.	1	1,237	2,102	2,896	284	150	4,443	3	19	
	Munshiganj	Do.	2	8,181	6,885	7,363	2,090	607	13,564	11	16	
	Manickganj	Do.	2	2,055	4,204	4,897	1,034	418	8,296	12	3	
Faridpur	Sadar	Munsif	14	2,011	1,201	1,479	1,671	122	5,496	18	13	
	Goalundo	Do.	2	2,549	1,269	2,100	1,421	237	7,300	26	18	
	Madaripur	Do.	2	2,777	3,798	4,508	1,650	417	8,381	2	14	
	Bhanga	Do.	3	5,232	3,196	4,486	3,641	302	7,808	8	15	
	Chikandi	Do.	3	2,390	4,357	6,187	1,234	516	8,274	2	10	
Backergunge	Sadar	Munsif	5	9,163	3,467	4,142	8,075	315	12,375	8	12	
	Pirojpur	Do.	4	4,410	983	1,675	3,464	254	6,077	24	19	
	Patuakhali	Do.	3	7,135	1,927	3,171	5,698	193	8,407	12	13	
	Bhola	Do.	2	3,447	1,064	1,724	2,687	209	6,332	31	30	
Mymensingh	Sadar	Munsif	14	3,416	1,024	3,404	803	233	8,642	8	14	
	Jawalpur	Do.	14	1,736	1,402	2,173	700	205	3,938	4	13	
	Sherpur	Do.	1	1,966	...	1,086	202	78	2,007	12	11	
	Jwarganj	Do.	2	1,405	1,107	1,546	504	293	4,738	76	20	
	Netrakona	Do.	3	4,426	3,584	4,481	2,620	1,011	12,804	0	12	
	Kishoreganj	Do.	2	3,041	1,375	2,889	978	549	7,396	32	17	
	Bazitpur	Do.	2	1,677	1,408	1,964	684	432	6,147	1	15	
	Atia	Do.	2	2,658	1,986	3,414	921	309	6,552	14	39	
Pingna	Do.	1	784	1,607	2,102	120	169	2,942	20	19		
Total			52	70,821	55,947	76,317	42,517	7,734	164,024	18	16	
Total for 1891-92			52	67,291	43,805	63,695	36,385	7,606	316,009*	11	27	

\* Shows the number of witnesses who attended.

The number of civil suits disposed of increased from 113,654 to 131,413, or 15.6 per cent. As compared with the beginning of the year, the number of suits pending has decreased by 8,430, or 29.3 per cent. The remarkable difference in point of material prosperity and in that resort to litigation which



seems to attend prosperity, which exists between the Dacca and Patna Divisions, is illustrated by the fact that, with a population only somewhat more than half that of Patna, the Dacca Division shows six-times the number of money suits and two-and-a-half times the number of rent suits instituted in Patna. The Commissioner makes the following remarks:—

"There has been a large increase in the number of suits disposed of, 15·6 per cent., mostly in the money and moveables class, but largely also in the rent suits class; still there was only one suit to 74 of the population. Faridpur is the most litigious district, with 61 persons to a suit. There is no corresponding increase in our income from court-fee stamps, so the increase is probably in suits of small value.

In the money and moveables class there is large increase in Dacca, Faridpur, and Mymensingh, some 20 per cent, while in Backergunge there is small decrease.

The Collector of Mymensingh explains that the increase in his district is due to the scarcity which prevailed during a portion of the year, and which rendered it impossible for debtors to meet their liabilities. In rent suits, on the other hand, though there is increase in all districts, it is largest in Backergunge, due, the Collector thinks, to the prosperity of the people; no doubt rent-receivers take advantage of a good year to press their claims. The increase in rent suits in Mymensingh is stated to have occurred chiefly in the Tangail sub-division, and is attributed to the inundation of 1889-90. In title suits there is little change on the whole."

The ratio of witnesses detained over two days per cent. of the witnesses examined is very high at some munsifis, especially Iswarganj, Kishorganj, Goalundo and Narayanganj. The ratio of appeals confirmed to the total number disposed of ranges from 51·4 in Backergunge to 61·8 in Faridpur.

8. Both cognizable and non-cognizable crime increased during the year, the total number of cases of both kinds being

Crime.	36,630 in 1892, against 33,269 in 1891 and 31,036 in 1890.
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The increase in cognizable crime occurred chiefly in the number of burglaries and thefts committed in Dacca and Mymensingh, while there was a large decrease in the number of these offences in Faridpur and Backergunge. The latter, being exporting districts, benefited by the high prices which with the prevailing scarcity developed criminal propensities elsewhere.

It is probable, however, that other causes were also at work to bring about these results, for, as the Commissioner remarks, the increase in crime was not so great in the Kishorganj and Netrokona sub-divisions of Mymensingh, which suffered most from scarcity, as in the rest of the district: good police administration rendering successful the measures taken to control and supervise the criminal population and the degree to which petty offences are reported are factors which have an important influence on criminal statistics.

The Commissioner gives some interesting figures showing that the districts of his division compare favourably in point of turbulence with Sylhet in Assam. Taking cases of unlawful assembly and rioting together, after Sylhet comes Dacca, then Faridpur, Mymensingh and Backergunge in the order named. The number of cases, however, in which loss of life occurred is greatest in Backergunge, and it must also be borne in mind that preventive measures under section 107, Criminal Procedure Code, are far more largely resorted to in that district than elsewhere.

9. The weakness of the regular police in this Division has been recognized, and improvements are contemplated when funds become available. Some interesting remarks are made by the Commissioner and the District Officers regarding the conduct and morale of the force. The Commissioner writes thus from a somewhat novel standpoint:—

"The police are not and can never be a popular body. Here, in India, they are perhaps more unpopular than they are in other countries. A very distinguished native officer recently remarked to me that the police would never improve so long as people continued to offer them bribes. I am inclined to agree with him that the faults of the police are the faults of the people, and that only as the people rise to a higher level of public morality will the character of the police improve. From this point of view the lavish abuse of the police which disgraces the native press is encouraging, as showing that the people are becoming more alive to their (own) faults in connection with the police."

The following extract contains Mr. Savage's remarks on the police of Backergunge. He writes that—

"In his district, excluding the police employed on guard and other duties, only 400 persons are employed on regular police duties, or one to 5,266 of the population,

as compared with one to 3,503 in the Province of Bengal, and whatever may be said (and much may be said truthfully) against our police, it must always be borne in mind that this small force has to cope, and has with a fair measure of success coped, with crime in a district notorious for the turbulent character of its inhabitants. When we consider the numerical weakness of the force, the bad pay, the hard work, and the manifold temptations which a district (in which every thief and lathial is rich enough to command the services of a trained pleader) can throw in the way of officers and men alike, the wonder is, not that the police fail to do their duty in many instances, but that duty is to them a word with any meaning. Nevertheless, we have officers and men who are zealous in the discharge of their duties, and if they be still outnumbered by the lazy, incompetent and dishonest, as I am afraid it must be admitted they are, their number will, it is to be hoped, increase year by year with increase of pay to the men greater care in the recruiting of officers."

10. There appears to be great disparity between the efficiency of the rural police in different districts. Dacca is still backward in this respect. In Faridpur and Mymensingh matters are improving, but much still remains to be done before these districts are on a level with Backergunge. The following account is taken from the Commissioner's report:—

"Mr. Savage, Magistrate of Backergunge, writes that the chaukidars in his district are now well paid and are a very useful body of men. He states that, as a rule, the chaukidar is a man of influence in his village, and can, if he will, keep his mahalla in order. His post is regarded as a very desirable one, and it is his interest to keep it by doing his duty. From the reward fund now started, the Magistrate hopes to be able to give better rewards and so increase the incentive to good work. I think Backergunge is unique in chaukidari as in some other matters. So desirable is the post of chaukidar in this district, that chaukidars, when dismissed, generally appeal to me. They often come to all the way to Dacca to plead their own cause.

I attended a parade at Pirojpur in this district a short time ago, and was astonished at the smartness and intelligence of the men. They bring their uniforms in neat bags, and put them on clean for parade. Each had a neat *changa* containing his sanad of appointment, his registers of vital statistics, his acquittance roll, and also a copy of questions he had to answer at parade.

It is stated that in this district the chaukidars have now greatly improved in rendering assistance to station officers, and have in numerous instances averted riots which would otherwise have occurred had they not given prior intimation to the police."

It is worthy of note that under a scheme drawn out by Mr. Savage all the chaukidars in his district have been paid in full for the Bengali year 1299, while in every other district there are considerable arrears

Criminal Justice.

11. The following statement shows the criminal work of the Division by districts:—

*Stipendiary Magistrates.*

DISTRICT.	Subdivision.	Class of officers.	Number of officers.	Cases disposed of.	Persons disposed of.	Ratio per cent. of persons convicted to disposed of.	Number of witnesses examined.	Ratio per cent. of witnesses detained over two days to total number examined.	Ratio per cent. of cases confirmed in appeal to total appealed.	Number of cases disposed of.	Number remanded six times and more.	Average of cases disposed of per officer.	Average of witnesses examined per case disposed of.	Ratio per cent. of column 12 to column 11.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Dacca	Sadar		8½	8,531	8,467	80	6,524	5	72	350	20	428	2	8
	Munshiganj		2	910	1,760	67	3,360	1	55	130	4	440	4	2
	Manikganj		1	872	660	62	1,735	2	90	131	10	872	5	5
	Narayanganj		1	700	1,106	62	2,061	11	74	110	10	700	8	9
Faridpur	Sadar		4½	1,558	3,410	76	4,767	3	65	301	6	546	3	2
	Goalundo		1	680	731	79	1,885	6	72	172	5	580	3	3
	Madaripur		3	1,372	2,222	65	5,081	1	56	184	...	457	4	...
Backergunge	Sadar	Stipendiary	8½	2,100	3,543	72	9,818	2	66	281	34	365	5	12
	Pirojpur		1	1,085	1,628	63	4,488	4	86	200	2	1,095	4	1
	Patuakhali		1	870	1,141	56	2,610	2	78	174	23	870	3	13
	Bhola		1	460	815	80	1,247	1	77	91	...	460	3	...
Mymensingh	Sadar		8½	1,918	3,081	59	8,296	6	62	387	30	296	4	8
	Netrakona		1	474	778	77	2,667	9	...	...	...	474	6	...
	Jamshilpur		1	606	987	61	3,518	4	81	223	25	606	6	...
	Kishanganj		1	607	872	58	2,076	10	83	440	19	607	4	11
	Tangail		2	853	1,390	67	3,084	4	73	268	26	853	4	13
Divisional total			41	18,087	28,160	69	64,347	4	69	3,515	233	440	4	7
Divisional total for 1891			39½	16,847	24,013	65	64,186	0	67	3,979	508	412	5	12

*Honorary Magistrates.*

DISTRICT.	Subdivision	Class of officers	Number of officers.	Cases disposed of.	Persons disposed of.	Ratio per cent. of persons convicted to disposed of.	Number of witnesses examined.	Ratio per cent. of witnesses detained over two days to total number examined.	Ratio per cent. of cases confirmed on appeal to total disposed.	Number of A cases disposed of.	Number remanded six times and more.	Average of cases disposed of per officer.	Average of witnesses examined per case disposed of.	Ratio per cent. of column 13 to column 11.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Dacca ...	Sadar	Honorary	22	410	488	65	0.7		23	..	..	149	1	100	
	Narayanganj		2	144	173	47	351	3	58			73	3		
	Munshiganj		4	547	678	33	1,576	4	40	1	1	127	8		
	Manikganj		7	379	462	39	1,407	3	45	5		54	4		
Faridpur	Sadar		5	302	377	54	631	4	48	1			101	3	11
	Goswami		11	280	300	89	351		43				229	1	
	Madaripur		3	594	781	41	1,819	11	27	10	2	198	8		
Backergunge	Sadar				301	330	52	646	4		6			3	800
	Pirojpur				105	107	40	203	13					2	
	Patuakhali				36	37	62	145						4	
	Bhola				3	5	60	5						3	
Mymensingh	Sadar			2	189	236	42	558	4	68			756	3	13
	Netrakona		1	399	400	47	744	16					369	2	
	Kishorganj		2	395	410	44	1,104	24		1			198	3	
	Tangail		1	121	164*	46	435		80	4			121	4	
	Jamalpur		2	314	513	58	631	7	..	5			197	2	
Total			29½	4,606	5,404*	49	11,317	7	48	44	3	155	2	7	
Total for 1891			20½	4,269	4,835	48	10,177	10	61	74	10	205	4	13	

\* One died

† Shows number of witnesses who attended

Forty-one Stipendiary Magistrates disposed of 18,027 cases, being an average of 440 cases to each officer against 413 in 1891. The Sub-divisional Officer of Pirojpur in Backergunge disposed of 1,095 cases, with an average of four witnesses to each case. At Patuakhali 879 cases and at Narayanganj 700 cases were disposed of by an officer with an average at both places of three witnesses to each case. At Netrokona and Jamalpur the average number of witnesses in each case was as high as six. The percentage of witnesses detained over two days to the number examined was greatest at Kishorganj (16 per cent.) and Narayanganj (11 per cent.) The ratio of A cases remanded six times and more to the number disposed of was over 10 per cent. at Tangail, Jamalpur Backergunge (Sadar) and Patuakhali. The Lieutenant-Governor is glad to acknowledge that there has been an improvement in the promptitude with which witnesses were examined and in the ratio of convictions confirmed on appeal.

The number of cases disposed of by Honorary Magistrates rose from 4,269 in 1891 to 4,606 in 1892, which was 20.3 per cent. of the total number of cases disposed of, and there can be no doubt that Honorary Magistrates render valuable assistance to the regular staff. Backergunge is still backward in making use of this agency for the trial of cases.

The Honorary Magistrates at Kishorganj, Netrokona, Pirojpur, and Madaripur detained over 10 per cent. of their witnesses for more than two days. The results on appeal are not satisfactory in view of the simple nature of the cases which Honorary Magistrates have to try. The figures are worst for Tangail, Mymensingh (Sadar) and Narayanganj.

12. The following table shows the attendance of Honorary Magistrates during 1892:—

*Return of Attendance of Honorary Magistrates for the calendar year 1892.*

DISTRICT.	Number of Honorary Magistrates.	Number of times asked to attend	Number of times actually attended.	NUMBER OF TIMES ABSENT—		
				With leave or notice.	Without leave or notice.	Total.
1	2	3	4	5	6	7
Dacca ...	115	2,318	2,145	123	50	173
Faridpur ...	56	1,923	1,256	117	550	667
Backergunge ...	31	407	327	79	1	80
Mymensingh ...	72	1,998	1,277	157	564	721
Total for the Division.	274	6,646	5,005	476	1,165	1,641

The number of absences without leave or notice is largest in Mymensingh and Faridpur and least in Backergunge, where the number of Honorary Magistrates is small. The Commissioner writes regarding the system as follows:—

“The whole system requires reorganisation. In the first place we cannot expect Honorary Magistrates to work unless we provide them with proper cutcherries and attendants. I have found Honorary Magistrates, who should be first served, relegated to all sorts of makeshift abodes. Then the roster system of attendance seems to me highly inconvenient. An Honorary Magistrate should sit certain days in the week or month, and should give notice a week beforehand when he is unable to attend. There should be an understudy ready to take the place of any Magistrate prevented from attending by sudden illness or other accident. It is a fact that in this Division few Benches sit more than once a week. A daily Bench, such as has been organised at many stations, is unknown. I hope soon to have daily Benches at head-quarters of districts and sub-divisions. The instructions contained in Circular No. 2843J., dated 30th May 1893, will greatly improve the organisation of Benches.”

13. The statement below shows the work of the Sessions Courts district by district:—

DISTRICT.	PARTICULARS OF CASES.					
	Number committed during the year.	Number disposed of.	Number in which conviction was obtained.	Number in which sentence modified or reversed by High Court.	Number of cases acquitted by Sessions Judge.	Percentage of cases resulting in conviction to total cases disposed of.
1	2	3	4	5	6	7
Dacca ...	59	61	38	5	22	63·3
Faridpur ...	24	32	19	.....	9	59·3
Backergunge ...	78	79	49	12	30	62·0
Mymensingh ...	107	105	74	5	30	70·4
Total for the Division.	268	277	180	22	91	64·9

14. The following table shows the impositions, realizations, and collections of fines during the year:—

DISTRICT.	Balance out- standing at the commence- ment of the year.	Amount im- posed during the year.	Amount col- lected during the year.	Balance out- standing at the end of year.
1	2	3	4	5
	Rs.	Rs.	Rs.	Rs.
Dacca ...	10,197	27,691	24,929	10,766
Faridpur ...	10,001	29,002	25,503	10,139
Backergunge ..	5,487	25,701	19,728	8,203
Mymensingh ...	13,692	57,306	44,820	18,183
Total ...	39,377	1,39,700	1,11,980	47,291

It is noticed that the outstanding balances were larger at the close than at the beginning of the year in all districts.

15. The number of documents registered during the year was as follows:—

DISTRICT.	Class of Registration office.	Number of offices	Number of documents regist. red.	Average per office.
1	2	3	4	5
Dacca	{ Special ...	1	5,377	5,377
	{ Rural ...	10	26,828	2,683
Faridpur ...	{ Special ...	2	7,467	3,738
	{ Rural ...	9	33,727	3,747
Backergunge ...	{ Special ...	1	5,740	5,740
	{ Rural ...	15	63,344	4,223
Mymensingh ...	{ Special ...	1	4,327	4,327
	{ Rural ...	13	39,928	3,071
Total for 1892-93 ...	{ Special ...	5	22,911	4,582
	{ Rural ...	47	163,827	3,486
Total for 1891-92 ...	{ Special ...	4	20,610	5,152
	{ Rural ...	44	153,409	3,487

There was an increase in the number of registrations which as in other divisions being due to the increasing popularity of the Department is normal and requires no special explanation. Backergunge heads the list with 69,084 documents registered, and Dacca is last with 32,205 registrations. The Commissioner says:—

“Though the increase in business is not so great as in the previous year, it is still highly satisfactory. The increase is distributed over all the districts. While an increase of Rs. 19,635 in receipts in 1891-92 entailed an increase of only Rs. 5,937 in expenditure, this year an increase of Rs. 5,733 in expenditure has only brought in Rs. 8,045 improved income. So, while we made a local profit of Rs. 1,20,119 in 1891-92, this year we have only made Rs. 1,22,431. In Dacca and Mymensingh increased income only about covers increased expenditure; in Backergunge there is a small decrease in receipts, while expenditure increased by Rs. 516; only in Faridpur is there really much improvement in profits, Rs. 3,268. This has not been satisfactorily explained. It is thought that there has been improvement in copying fees and in fees charged for delay in taking back documents”

16. The following statement shows the demands, collections, remissions, and balances of land revenue and cesses, district by district, the three classes of estates distinguished against land revenue being (I) Permanently-settled estates, (II) Temporarily-settled estates, (III) Estates held direct by Government:—

DISTRICT.	Class of demand.	Class of estates.	Number of estates.	DEMAND.		COLLECTIONS OF 1891-92.		BALANCE ON 1st APRIL 1893.		REMARKS.
				Current.	Arrear.	Current.	Arrear.	Current.	Arrear.	
I	2	3	4	5	6	7	8	9	10	11
Dacca	Land revenue	I ... ..	5,323	Rs. 4,26,292	Rs. 8,469	Rs. 4,19,318	Rs. 8,467	Rs. 6,974	Rs. 3,908	Remitted
		II ... ..	327	50,920	33,375	38,563	19,377	12,325	3,908	Ditto
		III ... ..	153	19,479	8,223	16,379	2,679	5,005	631	18
	Total		.....	4,96,691	35,067	4,74,260	30,453	22,304	4,631	
	Road cess	Estates	8,997	1,40,026	21,145	1,35,706	19,791	13,320	1,242	Ditto 115
	Zamindari dak	Rent-free tenures	1,080	9,865	8,170	9,225	6,007	640	770	Ditto 1,402
Faridpur	Total		.....	6,55,582	64,394	6,19,181	66,221	36,354	6,643	
	Total for 1891-92		.....	6,61,602	68,385	5,95,087	48,940	31,412	27,075	
	Land revenue	I ... ..	5,628	Rs. 4,31,632	Rs. 6,990	Rs. 4,24,988	Rs. 6,137	Rs. 6,644	Rs. 37	Ditto 325
		II ... ..	172	55,360	21,198	36,730	13,929	18,624	6,245	Ditto 1,025
		III ... ..	170	85,435	6,122	79,817	3,675	5,148	1,000	Ditto 917
	Total		.....	5,72,427	33,320	5,41,541	23,741	30,416	7,232	
Backergunge	Road cess	Estates	5,930	1,13,658	37,093	90,488	32,520	23,170	4,653	Ditto 325
	Zamindari dak	Rent-free tenures	1,361	8,357	640	7,872	479	495	161	
	Total		.....	6,94,442	71,955	6,39,901	50,740	54,071	12,096	
	Total for 1891-92		.....	6,93,693	1,16,693	6,34,192	54,158	50,083	21,767	
	Land revenue	I ... ..	2,069	Rs. 10,00,482	Rs. 12,209	Rs. 10,08,358	Rs. 11,682	Rs. 8,224	Rs. 515	Ditto 12
		II ... ..	263	1,35,293	49,924	1,23,925	37,130	10,868	11,163	Ditto 2,335
		III ... ..	336	4,02,888	31,167	3,79,712	24,451	23,116	3,731	Ditto 3,045
Mymensingh	Total		.....	15,47,463	83,200	15,08,095	73,269	37,908	15,409	
	Road cess	Estates	4,492	2,94,890	46,401	2,57,488	48,911	36,631	213	Ditto 774
	Zamindari dak	Rent-free tenures	540	672	811	585	278	87	36	
	Total		.....	17,075	70	16,887	68	103	3	Ditto 90
	Total for 1891-92		.....	18,59,806	1,30,068	17,63,635	1,19,615	74,729	15,601	
	Total for 1891-92		.....	18,33,237	1,76,446	17,09,850	1,40,888	1,21,631	19,239	
Mymensingh	Land revenue	I ... ..	7,254	Rs. 7,68,531	Rs. 3,617	Rs. 7,65,781	Rs. 3,598	Rs. 3,053	Rs. 19	
		II ... ..	206	21,471	21,739	65,479	11,663	6,392	10,076	
		III ... ..	64	16,028	9,689	8,570	6,917	7,158	3,072	
	Total		.....	8,06,030	35,345	8,40,130	22,178	16,603	13,167	
	Road cess	Estates	7,745	3,38,595	26,244	3,12,380	24,655	26,023	1,476	Ditto 405
	Zamindari dak	Rent-free tenures	66	507	77	444	45	63	32	
Mymensingh	Total		.....	15,403	920	14,824	748	579	179	
	Total for 1891-92		.....	12,11,238	62,586	11,07,778	47,620	43,268	14,847	
	Total for 1891-92		.....	12,13,440	1,01,031	11,63,104	82,167	43,078	18,674	
	GRAND TOTAL		.....	44,21,068	3,38,923	42,10,495	2,80,000	2,08,422	49,247	Total remission 11,827
	Grand total for 1891-92		.....	43,91,691	4,52,555	41,01,743	3,75,038	2,52,154	86,965	

The total collections of land revenue amounted to Rs. 35,14,217 against Rs. 34,95,801 in the previous year, 95·7 per cent. of the total demand having been collected against a percentage of 94·4 in 1891-92. The collections in estates of class II were poor, except in Backergunge, where over 94 per cent. of the true recoverable demand was collected in all estates of this class. Owing to the assessment of new estates and new accretions in Backergunge, the revenue from estates held under direct management increased from Rs. 4,95,768 to Rs. 5,23,830, and the cost of management fell from 7·5 per cent. of the current demand to 5·5. The collections in estates leased to farmers were particularly bad in Dacca and Faridpur, and the Officiating Lieutenant-Governor considers the explanations offered of these unsatisfactory results altogether inadequate.

In regard to cesses, the percentage of collections on gross demand varies from 84·3 in Faridpur to 96·9 in Dacca. There has been improvement since the previous year in nearly all districts, but there is room for further improvement in Faridpur.

Certificate Procedure.

17. The statement below exhibits the certificate work of the year:—

DISTRICT.	Department.	Number pending at beginning of year.	Number issued during year.	Total for disposal.	Amount of certificate.	Number pending at close of year.	Amount of certificate.
1	2	3	4	5	6	7	8
Dacca ... ..	All departments ... ..	1,489*	2,781	4,270	Rs. 71,000	3,483	Rs. 44,199
	Total for 1891-92 ...	661	8,040†	3,710	54,482	2,240	87,397
Faridpur ... ..	All departments ... ..	1,198*	1,421	2,619	82,821	2,187	64,123
	Total for 1891-92 ...	1,106	2,481†	3,635	1,19,206	2,422	76,788
Buckergunge ... ..	All departments ... ..	890*	2,883	3,773	1,79,827	3,061	1,42,454
	Total for 1891-92 ...	1,120	2,791†	2,911	2,23,888	3,012	1,06,233
Mymensingh ... ..	All departments ... ..	1,348*	2,147	3,495	1,03,178	1,937	47,459
	Total for 1891-92 ...	1,236	2,048†	3,484	1,34,235	2,530	76,718
	Total ...	4,925*	9,232	14,157	4,33,826	10,567	2,09,435
	TOTAL FOR 1891-92 ...	4,193	10,967†	15,140	5,36,811	10,173	3,57,907

\* These figures exclude the number of certificates received from other districts.

† These figures show the number of certificates filed during the year.

There were 14,157 of which 10,567 were disposed of, leaving 3,590 pending at the close of the year. The cases disposed of exceeded the number instituted in all the districts of the Division, except Mymensingh, where the number pending at the close of the year was very large, owing, it is said, to the fact that 1,347 cases were instituted in the last quarter of the year as compared with 817 institutions in the corresponding quarter of the preceding year.

18. The total number of partition cases for disposal was 555, including 463 which were pending at the close of the preceding year. Of these 114 were disposed of, thus reducing the number of cases pending at the end of the year to 441. In Dacca the oldest pending case dates from January 1881, in Mymensingh from August 1883, and in Buckergunge from January 1884. It is desirable that some explanation should be offered in the column of remarks to account for these long delays. The same remark applies to the statement of Land Acquisition cases.

Excise.

19. The main features of the working of the Excise Department are exhibited in the statement below—

DISTRICT.	COUNTRY SPIRITS.				GANGA AND GHANO.				OPIMUM.			
	Number of shops.	License fees.	Gross realisations.	Total receipts.	Number of shops.	License fees.	Gross realisations.	Total receipts.	Number of shops.	License fees.	Gross realisations.	Total receipts.
1	2	3	4	5	6	7	8	9	10	11	12	13
Dacca ... ..	64	Rs. 40,358	15,462	Rs. 57,821	80	Rs. 88,141	278	Rs. 1,46,403	34	Rs. 5,811	22	Rs. 24,618
Faridpur ... ..	43	6,110	6,197	23,343	62	26,861	74	41,082	20	5,196	7	9,626
Buckergunge ... ..	39	13,684	6,800	34,146	74	29,061	68	45,831	45	12,112	20	34,962
Mymensingh ... ..	67	37,639	11,180	69,278	130	1,00,804	392	1,93,227	69	19,430	35	51,440

Revenue from all sources.

Rate per head of population.

	Rs.
Dacca ... ..	2,71,340
Faridpur ... ..	55,924
Buckergunge ... ..	1,10,066
Mymensingh ... ..	3,55,601
Total ...	8,10,440
Total for 1891-92 ...	8,18,086

Rs. A. P.
0 1 8
0 0 8
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The consumption of country spirits has increased in Faridpur and diminished in other districts, while Dacca only shows a slightly increased consumption of ganja. Mr. Savage introduced in Backergunge a system of issuing ganja to licensees only in proportion to the amount of license fees paid by them, which, while it considerably reduced the quantity of ganja sold, has brought retail selling prices to one and the same level, prevented unhealthy competition, and checked illicit sales.

The excise revenue amounted to Rs. 8,10,440 against Rs. 8,18,086 in 1891-92, the incidence of revenue being 1 anna 3 pie per head of the population.

20. The average incidence of the income-tax in this division is Re. 1 to 35 persons. The incidence varies from Re. 1 to 28 persons in Dacca, to Re. 1 to 48 persons in Faridpur, where the Commissioner seems to think that the tax could be made more productive without resorting to harsh assessments.

21. The Officiating Lieutenant-Governor observes with pleasure the development of steamer communications in this division. Some of the services now maintained receive subsidies from the different District Boards, but it is hoped that they will soon be in a position to dispense with such assistance. If the companies which run these steamers are soundly managed, they should do remunerative business and confer much benefit on the people of Eastern Bengal, where the great waterways are the natural avenues of wealth.

The Commissioner's remarks about projected railways will be considered in the Public Works Department, and those on the subject of towing-paths in the Municipal Department. The Lieutenant-Governor agrees with the Commissioner in thinking that the proper maintenance of towing-paths is a matter of much importance to the people in districts like Backergunge, where traffic is principally carried on through rivers.

22. The following table gives the main educational statistics for each district in the division exclusive of private institutions for indigenous instruction:—

COST.													
DISTRICT.	Class of schools.	Number of schools.	Number of pupils on rolls.	Provincial.	District Board.	Municipality.	Pees.	Other.	Total.	Cost per head of pupils.	Population.	Number of boys of school-going age.	Percentage of boys at school to boys of school-going age according to Director of Public Instruction's report.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Dacca	High	10	4,880	14,353	...	797	80,787	11,449	87,986	17.9	2,420,056	180,087	30.2
	Middle	100	8,734	7,444	10,633	855	26,545	14,610	60,116	6.8			
	Primary	1,590	39,312	2,758	17,433	...	41,157	11,564	7,292	1.9			
	Miscellaneous	6	1,099	27,193	...	...	10,359	10,086	54,248	40.1			
	Total	1,774	54,024	51,138	28,086	1,652	1,47,848	48,348	2,77,072	5.1			
Total for 1891-92		1,630	58,008	35,891	29,508	1,871	1,58,666	5,230	2,63,175	4.5			
Faridpur	High	8	1,241	2,681	...	...	17,756	5,037	25,474	20.5	1,797,320	155,063	25.9
	Middle	91	5,397	3,422	7,889	128	18,004	11,822	41,355	7.0			
	Primary	1,222	29,379	2,470	12,929	313	34,037	7,748	56,077	1.9			
	Miscellaneous	8	20	60	...	...	...	...	80	2.1			
	Total	1,334	36,046	8,053	19,918	441	69,887	24,607	1,23,506	3.4			
Total for 1891-92		1,440	35,800	8,972	19,603	666	66,662	22,782	1,18,603	3.3			
Backergunge	High	9	2,240	5,856	...	150	20,331	7,129	42,406	18.6	2,153,066	165,066	42.3
	Middle	46	4,016	3,422	6,592	477	15,843	13,946	40,660	8.8			
	Primary	2,005	63,875	3,413	14,336	130	86,053	58,831	1,02,703	2.5			
	Miscellaneous	18	241	214	2,079	...	4,135	832	7,800	32.0			
	Total	3,018	71,010	13,305	23,907	687	1,35,392	80,758	2,53,749	3.5			
Total for 1891-92		2,952	71,714	12,795	23,891	1,085	1,34,359	75,248	2,50,373	3.6			
Mymensingh	High	11	2,519	5,218	...	270	20,051	10,695	46,134	18.3	3,472,186	268,292	17.4
	Middle	117	7,443	8,320	9,736	1,340	27,511	17,560	54,170	7.0			
	Primary	1,409	35,044	1,779	17,312	409	45,627	5,021	76,138	2.1			
	Miscellaneous	14	2	151	...	...	...	...	151	5.5			
	Total	1,748	45,063	10,408	27,048	2,100	1,02,992	33,276	1,76,803	3.9			
Total for 1891-92		1,585	42,778	9,726	26,393	3,215	88,069	31,550	1,02,043	3.8			
Total of Division	High	47	10,920	28,108	...	1,217	1,37,825	34,310	2,01,480	18.4	9,844,127	748,008	39.6
	Middle	459	26,210	18,008	24,870	2,730	88,026	67,907	2,01,651	7.0			
	Primary	7,323	1,07,694	9,890	61,110	942	2,23,557	81,880	8,76,748	2.1			
	Miscellaneous	45	1,305	27,223	2,670	...	20,464	11,943	62,339	44.0			
	Total	7,874	2,06,133	83,564	98,659	4,849	4,69,902	1,85,589	8,42,178	4.02			
Grand Total for 1892-93		7,874	2,06,133	83,564	98,659	4,849	4,69,902	1,85,589	8,42,178	4.02			
Grand Total for 1891-92		7,476	2,08,308	97,384	1,14,305	6,887	4,42,776	1,66,114	8,03,316	3.8			

NOTE. In the above statement the cost of buildings, furniture, inspection, scholarships and miscellaneous charges amounting to Rs. 1,13,745 is not included.



It will be observed that about 29·6 per cent. of the boys of school-going age were actually at school, the highest ratio being in Backergunge (42·2 per cent.) and the lowest in Mymensingh (17 per cent.) As remarked last year there is very great room for improvement in the latter district. At the close of the year there were 7,874 schools with 206,133 pupils against 7,876 schools with 208,309 pupils in 1891-92. The District Boards spend considerable sums on education, and the greater part of their contribution goes to the support of primary schools. The Dacca Municipality, though its total expenditure during the year amounted to Rs. 1,86,487, contributed nothing towards primary education, and other municipalities but little. It is to be hoped that recent orders issued by Government will effect a reform in this respect.

The average cost of primary education per pupil is largest in Backergunge and least in Dacca and Faridpur.

There were 19,803 girls at school as compared with 17,961 in the previous year, and 14,507 in 1890-91. These figures indicate that female education is gaining ground.

The number of Muhammadan pupils (boys and girls) on the other hand declined from 131,530 in 1891-92 to 117,599 in 1892-93, the decrease being attributed to the high price of articles of food. The success of Muhammadan pupils in the different departmental examinations was indifferent compared with other sections of the community. While Muhammadans form 60 per cent. of the total population and 48·6 per cent. of the total number of pupils, of the successful candidates, at the lower primary scholarship examination only 23·5 per cent were Muhammadans, and the percentage in examinations of a higher order is much less.

Dispensaries.

23. The following table gives the statistics relating to dispensaries:—

DISTRICT.	Number of dispensaries.	INCOME FROM—					DAILY AVERAGE PATIENTS—		Ratio per cent. of outdoor patients to total population.
		Government.	District Board.	Municipality.	Subscriptions.	Total.	In-patients.	Out-patients.	
1	2	3	4	5	6	7	8	9	10
Dacca .. ..	10	Rs. 196	Rs. 112	Rs. 10,471	Rs. 16,025	Rs. 27,544	125	293	2·3
Faridpur .. .	6	1·1	906	2,794	7·72	7,117	10	132	1·4
Backergunge ..	3	182	1,062	1,917	2,439	5,600	24	126	1·1
Mymensingh ..	5	812	1,557	4,590	17,008	24,967	49	420	1·9
Grand Total ..	36	2,081	3,637	19,806	31,644	64,888	213	971	1·7
GRAND TOTAL FOR 1891-92.	33	883	3,230	16,267	37,315	57,695	51	233	1·6

There are 36 Dispensaries in the Division with an average daily attendance of 971 out-patients, being 1·7 per cent. of the total population as compared with 1·6 per cent. in the year preceding. Of these 36 institutions, 13 are supported by District Boards and Municipalities, and the rest (23) by private individuals and subscriptions. The Commissioner says:—

“I am inclined to attribute our backwardness in the matter of public charitable dispensaries, partly to the fact that we are more liberally provided with private practitioners of different systems of medicine than many other parts of India.”

The Officiating Lieutenant-Governor observes with pleasure the success which has attended the liberal expenditure of Srimati Bindu Bashini Chaudhurani and Srimati Jannabi Chaudhurani on the Tangail and Santosh dispensaries respectively.

Local Self-Government Institutions.

24. The Commissioner makes the following remarks regarding the District and Local Boards:—

“Most of the members of the Dacca Board continued to take considerable interest in the questions which came before them for consideration. The Faridpur Board worked satisfactorily and smoothly. The Local Boards have no funds of their own, and are rarely allowed for expenditure more than a small percentage of the amount they contribute to the District Funds. Under these circumstances, that in Dacca members take some interest in the transaction of business is very satisfactory, while the statement that in Faridpur they are a failure can hardly cause surprise. In Backergunge the members of both District and Local Boards have taken great interest in their work, and steady progress has been

the result in sanitation, communications, and education. The Mymensingh District Board is far the most helpful body Mr. Earle has ever presided over. The members take the keenest interest in the Board's affairs. The Local Boards in this district carried out their vicarious duties satisfactorily."

There are now 17 municipalities, ranging from the large and important town of Dacca with a population of 82,321, to rural areas, which in some cases hardly fulfil the conditions of section 10 of the Act. The character of the work done appears to have been fairly satisfactory. The Commissioner advocates the introduction of some form of rural municipal government.

25. Of political institutions and the press there is little to be said. The Commissioner remarks:—

"I look to the press of this country as the great social and economic reformatory agent of the future. At present it is merely in its infancy, and spends much of its time in discussing political questions of very secondary importance."

Conduct of the zamindars.

26. The conduct of zamindars in their relation to Government has been satisfactory.

In Dacca Nawab Sir Abdul Gani, Bahadur, K.C.S.I., Nawab Ahsanulla Bahadur, C.I.E., Raja Rajendro Narain Roy Bahadur of Bhowal, and Raja Sri Nath Roy of Bhagyakul, have well maintained their reputation as law-abiding zamindars. Maharaja Sir Jotindra Mohan Tagore and Babu Kali Kissen Tagore in Faridpur, Raja Sir Surendra Mohan Tagore and Babu Kali Kissen Tagore in Backergunge, are reported to manage their estates well. In Mymensingh Babu Jogendra Kishore Ray Chaudhuri, the Sherpur landholders especially Babu Radha Balab Chaudry, the Tangail zamindars, Mohamed Ali Khan of Koratia, Maharaja of Durgapur, and Babu Jogat Kishore Acharjee of Muktagacha are favourably mentioned. Babu Upendra Chandra Sen of Basanda in Barisal gave a liberal donation of Rs. 2,800 for the erection of an infectious disease's ward in connection with the Barisal hospital. The Lieutenant-Governor notices with regret that Srimati Bindu Bashini Chaudhurani and Srimati Jahnavi Chaudhurani should be hostile to one another, for both are public-spirited, especially Srimati Bindu Bashini, who has founded the best hospital in the district.

As regards the relations subsisting between landlords and their tenants, the Commissioner makes the following observations:—

"The relations between the landlords and their tenants in this Division were on the whole not unsatisfactory. In Dacca a few cases of misunderstanding between these two classes are reported to have occurred in the sub-divisions of Narainganj and Munshiganj. Faridpur, as reported last year, suffers from the evil effects of non-resident landlords, and the Collector mentions two typical cases as instances in point—one in which the naib of a zamindar's cutcherry at Binodepur, in the Madaripur sub-division of that district, was brutally murdered by some of his tenants, and the other, in which a peon of the Munsif's Court at Bhanga, in the Sadar sub-division, was murdered in cold blood by the adherents of certain zamindars, who thereupon charged a refractory raiyat with the murder in order to get him out of the way. In Backergunge, of the combinations noticed in paragraph 164 of the last year's printed report, that at Beghadi still exists in a modified form. There was a riot during the year in which a tenant belonging to the combination was killed. The Collector thinks that the combination will probably continue till the estate comes under the Court of Wards. The other combination at Charati has, through the judicious action of a local pleader who was put in charge of the zamindari affairs, been broken up, and the tenants are now paying their rents at the former rates. But though the combinations reported last year have subsided, others are about to spring up. The Collector states that at the first fruits of good crops and high prices, some of the zamindars are making demands for extraordinary subscriptions which, it is to be feared, will prove the forerunners of new and serious disputes. It may be hoped, however, that the experience of the past will have taught the zamindars that the tenants in combination are ordinarily stronger than the landlords, however much the latter may have right on their side, and that, in recent years at least, the landlords have never succeeded in breaking down such combinations by force. Roughly speaking, the Collector remarks, the relations are strained over one-fourth of the district, and that over the remaining three-fourths there is peace which will continue as long as the landlords are content with their present income."

"In Mymensingh the general relation between landlord and tenant is reported to be one of sullen discontent, but no exceptional manifestation of bad feeling came to light during the year. The never-ending disputes between Bindu Bashini Chaudhurani and her rival Jahnavi Chaudhurani in the sub-division of Tangail, which for years past have unsettled that sub-division, continue to exist, but have not given rise to very serious disturbance during

the year under report. There was also a series of disputes between Rahatanness Khanam and her son Abdul Rahaman, which caused strained relations between the raiyats of the estate and the lady in question. The Magistrate is now engaged in trying to settle this unfortunate quarrel amicably."

27. The Officiating Lieutenant-Governor desires to thank Mr. Luttman-Johnson for his report and careful administration of the division. Among District Officers

Conclusion. Messrs. Savage and Earle and among Subdivisional Officers Mr. Basanta Kumar Mullick and Babu Raj Mohun Chakravarty have been specially commended.

The confidential remarks of the Commissioner on the characters of officers will be forwarded to the Appointment Department as usual.

By order of the Lieutenant-Governor of Bengal,

M. FINUCANE,

*Offg. Secy. to the Govt. of Bengal.*

# RESOLUTION ON THE GENERAL ADMINISTRATION REPORT OF THE CHOTA NAGPUR DIVISION FOR 1892-93.

GENERAL DEPARTMENT—MISCELLANEOUS—No. 2582.

Calcutta, 14th November 1893.

## RESOLUTION.

### READ—

The Annual General Administration Report of the Chota Nagpur Division for 1892-93.

The report is submitted by Mr. Grimley, who held charge of the Division as Commissioner from the 1st April to the 30th May 1892, and from the 26th October to the end of the year. During Mr. Grimley's absence on leave, Mr. Wace officiated as Commissioner.

The Division was twice visited by the Lieutenant-Governor (Sir Charles Elliott) during the year—first in July and then again in November. Sir Charles Elliott inspected all the district offices and treasuries, and examined and discussed many important questions including the proposal to extend the Bengal Tenancy Act VIII of 1885 to the Division, a Bill to regulate the enhancement of rents and the commutation of predial sales, the state of the tauzi, the re-settlement of Palamau, the status of the jagir tenures of that district, forest conservancy, the arrangements for the disposal of civil suits, and the large question of free emigration.

The Commissioner's tour, of which he gives a full and interesting description, added the Political States of Kharsowan, Seraim Sirguja, Udaipur, Jashpur and Gangpur, which were visited by Mr. Grimley during the cold weather. All the district offices were inspected either by Mr. Grimley or Mr. Wace with results which are reported as being on the whole satisfactory, but the sub-divisions, of which there are only two, Giridih and Joudpur, were not visited. Mr. Grimley explains that, owing to the great distances which have to be traversed, it is difficult to combine a complete tour of the districts with a tour through the Political States.

The tours of District and Subdivisional Officers were in all cases of the prescribed length and appear to have been well arranged and well distributed throughout the year. Colonel Gae in Hazaribagh, and Mr. Bright in Palamau, are specially mentioned by the Commissioner for their excellent work on tour. The rules regarding inspection of offices were also observed with commendable punctuality.

2. The Commissioner gives a summary of the atmospheric conditions of the year and the outturn of the various harvests.

He remarks that the year was characterised by intense heat in April and May, and a cold in November, December and January. The rainfall was sufficient in quantity, but not always seasonable or evenly distributed. On the whole the conditions were favourable, and taking the good with the bad, the average results were probably little, if anything, below the normal, except in the Manbhum district, certain localities in which suffered from a partial failure of the crops. The outturn of bhadoi ranged from 12 annas in Manbhum to 19½ annas, nearly a bumper crop, in Hazaribagh. The winter rice crop, which at one time promised well, was adversely affected by the insufficient rainfall in October and November, and the average for the division is estimated at about 13 annas. Owing to deficient moisture in November and December, which was followed by heavy and untimely rain in March, the rabi crops were the worst of the year, the outturn ranging from 8 annas in Manbhum to 14 annas in Hazaribagh. Fears were at one time entertained in respect of the important mahua crop, which forms one of the chief articles of food of the poorer classes for two or three months of the year, but in spite of the heavy rain of March, a fair outturn was eventually obtained.

3. The Commissioner writes that the year was decidedly less healthy

Public health.

than either of the two preceding it. Cholera and smallpox were more prevalent throughout the division, and the former assumed an epidemic form in Lohardaga and Manbhum,

causing 3,379 deaths in the former and 2,952 deaths in the latter district, against 1,939 and 1,111 respectively in the previous year. In Hazaribagh the number of deaths from cholera was 2,296 against 1,180 in 1891-92, and some villages in the Hussainabad and Chainpur thanas in Palamau were also attacked with considerable severity. Mortality was also largely caused by bowel-complaints, probably of a choleraic order.

DISTRICTS.	Population according to census of 1891.	TOTAL NUMBER OF DEATHS REPORTED IN—			RATIO PER MILL IN—		
		1890-91.	1891-92.	For the year 1892.	1890-91.	1891-92.	For the year 1892.
1	2	3	4	5	6	7	8
Hazaribagh	1,104,821	27,862	31,715	40,900	23.0	27.2	34.81
Lohardaga	1,128,886	18,742	23,450	42,909	18.0	27.9	37.47
Palamau	600,770	14,173	21,508	23,292	12.0	14.7	19.34
Singhbhum	645,498	8,786	9,945	10,554	20.3	21.0	25.20
Manbhum	1,193,325	21,291	26,135	30,078			

#### 4. In this Division, which supplies labour largely to other parts of Bengal

Material condition of the people, prices of food and labour, and emigration.

and to Assam, it may be stated with almost mathematical accuracy that the number of emigrants from each district varies inversely with the material prosperity of the people in any particular year, while at the same time the standard of comfort has a tendency to rise, because labourers and cultivators grow less easily satisfied with what they can earn in their own homes, and more ready to emigrate to better their condition. In other words, the Division is so far progressive. Applying these general observations to the circumstances of the past year, it may be inferred that, in all districts except Manbhum, the year was one of advancing prosperity. Prices of food-grains generally ruled higher, but while people depending on occupations other than cultivation on fixed incomes suffered, the cultivators, especially in Lohardaga, made large profits by selling the surplus of their harvests for export to meet scarcity elsewhere. In Manbhum where, as already stated, there was a partial failure of the crops, there was no surplus to sell, and possibly some scarcity. Accordingly Hazaribagh, and to a greater degree Lohardaga, show a diminution in the stream of emigration; while in Manbhum, so far as the returns can be relied on, the number of emigrants increased from 2,787 persons in 1890-91 and 7,892 in 1891-92 to 12,296 in 1892-93, the pressure of scarcity being in this way so far relieved that the road works which were undertaken in some parganas, where the harvests were worst, attracted but few labourers. As regards Singhbhum and Palamau, it is difficult to estimate the amount of emigration, but probably it is small, and in the former district at least there are not wanting indications that the people are for the most part well off. Mr. Renny, the District Officer, who is an undoubted authority, writes as follows:—

“Speaking generally, the agricultural classes have stored up a full year’s food-supply in their houses, and with this they will never part, no matter how high the prices offered are; while the labouring classes have plenty of work, and the price of even unskilled labour ranges high”

Again, speaking of prices, the Commissioner says—

“In Singhbhum, as stated in the last year’s report, owing to the opening of the Bengal-Nagpur Railway and mining and other industries, there has been a general rise in the wages of every class of labourer except gharamias. In some cases the increase has been at the rate of 50 per cent., and in others the rate is 100 per cent. It is said that the Kols of Singhbhum are a most independent lot. They are chiefly of the agricultural class, and as their material condition is generally good, they hold out for a certain rate of wages, and will not accept a pice less. They are, however, excellent workers, and European contractors would often be too glad to pay them 10 pice or 3 annas per diem, for they are sure to get from them a full equivalent of the amount paid.”

Palamau is more backward than the rest of the division, there being little export trade from it; prices ruled lower, though owing to deficient communication they varied considerably in different localities in the district. The condition of the people was on the whole satisfactory.

This seems to take away for the effect of the questions immediately preceding.

5. Complaints continue to be made of abuses in connection with free emigration. Colonel Evans Gordon, the Deputy Commissioner of Lohardaga, and Mr. Bedford vigorously condemn the system as being a source of cruelty, oppression and wrong. The Lieutenant-Governor hopes that the most important means at present available for the prevention of abuses, namely, the inspection of coolie depôts, will be systematically practised. In Palamau the inspection of a depôt by Mr. Babonau led to the discovery of what is said to be a typical case of kidnapping. The following account of the case is taken from the Commissioner's report—

“One serious case of kidnapping occurred in Palamau in December last, in which two arkatis carried off a whole family from the village at the order, they say, of the malik of the village, who told them to take the family to the depôts and realize a debt due to the malik. On the road the husband managed to effect his escape, and the two arkatis proceeded to Daltonganj with the wife and several little children. They were safely landed in a depôt, and nothing would probably have been heard of the case, had not Mr. Babonau, when inspecting the depôt shortly after their arrival, seen signs of recent occupation, though the depôt-holder denied that there had been any coolies for some days. A search was then made, with the result that the women and children were found confined in a room in a neighbouring house. Both the accused were convicted of wrongful confinement.”

6. The number of tea gardens fell from 29 to 28, the area under tea from 3,646 to 3,511 acres, and the total quantity manufactured from 535,512 to 373,957lb, the average yield per acre being 112lb against 157lb in the preceding year. The Commissioner says:—

“The prospects of the tea industry in the Division are not favourable, the climate is too dry, the rainfall too uncertain, and the soil not sufficiently rich. Labour is also an annually increasing difficulty, owing to emigration, and wages have risen since the opening of the gardens, and of a tendency to rise each successive year, while the tea produced is not a very high quality. Mr. Middleton, an experienced tea planter of Lohardaga, writes—‘Chota Nagpur can never compete with the other tea districts of India and Ceylon, and its cultivation will eventually have to be abandoned.’”

The manufacture of lac increased in Lohardaga, but this improvement was more than counterbalanced by the falling off in Manbhum, where the conditions of the year were unfavourable to this industry. Considerable quantities of lac are said to be grown in the Division, and especially in Palamau, for export to Gaya and other districts, where it is manufactured into shell-lac. Catechu is manufactured on a small scale in Hazaribagh and Palamau, and soapstone bowls and plates are made in Singhbhum and parts of Lohardaga. A silk filature started at Palamau has proved a failure; but large quantities of cocoons are exported chiefly to Murshidabad for manufacture into tussar silk, the value of the cocoons exported from Singhbhum alone being estimated at Rs. 5,59,240

The coal mines in the Giridih and Gobindpur sub-divisions continue to be successfully worked, while as regards the mica mines, the Commissioner says:—

“Up to the end of the last year, altogether 189 Government mines, covering 90·30 acres, have been settled. The annual revenue demand of these mines amounted to Rs. 9,616·9, out of which Rs. 9,319·9 were realized during the year. The balance Rs. 297 is being realized under the certificate procedure. The total output of all mica mines worked in Hazaribagh was 2,236 maunds against 1,789 maunds in the previous year. The demand for mica is said to be principally from the United States, but is said to be now affected by the McKinlay Tariff Bill, under which a duty of 35 per cent. is levied upon all foreign mica.”

The Baraganda copper mines have been purchased by Messrs. Bird and Company, but work has not yet been resumed. A mine at Rakka belonging to the Rajdoha Mining Company, Limited, is likely to prove profitable as two valuable beds of copper are reported to have been discovered. Gold operations have not proved more successful this year than last, and no silver or tin has so far been found by prospectors.

7. The Commissioner remarks that the chief feature in the trade of the past year was the large increase of exports from all districts of the division, but this is hardly borne out by the table of statistics showing the exports by rail from Manbhum in 1892-93 as compared with those of 1891-92. In Lohardaga statistics were collected between the 1st September 1892 and 31st March 1893 of the traffic on the road between Ranchi and Lohardaga, and the results indicate that there has been an immense expansion of the volume of trade passing over this route. In

Singhbhum the timber trade was carried on during the year on the extensive scale which was noticed in last year's Resolution. It is stated that the trade of Palamau is much hampered by want of good roads, but measures are being taken for the improvement of the communication between this district and the neighbouring district of Gaya.

Civil Justice.

8. The following table exhibits the work of the Civil Courts during the year:—

DISTRICT.	Sub-division or chauki.	Description of Court.	Number of officers.	NUMBER OF ORIGINAL CASES DISPOSED OF.		DETAILS OF CASES IN COLUMNS 5A AND 5B.		Number of witnesses examined.	Ratio per cent. of witnesses detained over two days to total number examined.	Ratio per cent. of cases pending at end of year to total disposed of.
				Ordinary.	Small Cause Court.	Money.	Title.			
1	2	3	4	5A	5B	6	7	8	9	10
Sauribagh	Sadar	Munsif	1	377	...	328	40	614	9	48
	Chatra	Do.	12	96	...	91	5	175	8	...
	Giridih	Do.	12	1,052	...	1,010	42	1,369	21	16
Lohardaga	Sadar	Do.	1	584	...	506	78	857	19	21
	Lohardaga	Do.	1	192	...	150	30	493	13	10
Palamau	Daltonganj	Do.	1	356	...	335	21	550	17	14
	Chaibassa	Do.	1	142	...	90	43	9	...	116
Singhbhum	Raghunathpur	Do.	1	840	...	553	267	1,154	27	28
	Barambazar	Do.	1	770	...	527	243	1,289	6	22
	Gobindpur	Do.	1	350	...	294	65	278	17	5
Total			192	4,718	...	3,899	849	7,083	17	22
Total for 1891-92*			17	8,284	454	4,714	921	20,283†	20	24

N.B.—This statement does not include the figures for rent cases disposed of by the Deputy Collectors, &c., acting as Munsifs.

\* The total for 1891-92 includes the figures for Sub-Judges.

† Shows the number of witnesses who attended.

Over 20 per cent. of the witnesses were detained over two days in the Munsifs of Giridih and Raghunathpur, and over 10 per cent. in those of Ranchi, Lohardaga, Daltonganj, and Gobindpur.

During the year the appointment of a Subordinate Judge for the district of Manbhum was sanctioned with the addition of a munsif, who is to work for eight months of the year at Purulia, and for the remaining four months at Chaibassa.

The following table shows similar statistics in regard to rent suits

DISTRICT.	Place where suit.	Number of officers.	Number of rent cases disposed of.	Number of witnesses examined.	Ratio per cent. of witnesses detained over two days to total examined.	Ratio per cent. of cases pending at end of year to total disposed of.
1	2	3	4	5	6	7
Hazariabagh	Sadar	44	558	1,040	Nil	5
	Giridih	2	313	442	8	5
	Chatra	1	141	143	9	16
Lohardaga	Ranchi	54	1,617	} Witnesses not given.	}	11
	Lohardaga	1	370			11
Palamau	Sadar	12	75	246	18	21
Singhbhum	Sadar	3	91	59	Nil	64
	Sadar	54	1,543	3,087	} No register kept of witnesses detained.	13
Manbhum	Raghunathpur	1	472	470		10
	Barambazar	1	750	454		6
	Gobindpur	1	244	287		9
Total		274	6,165	...	...	11

Witness attendance registers do not appear to have been maintained in Lohardaga and Manbhum. The omission should be explained. At Daltonganj 16 per cent. of the witnesses in these suits were detained over two days. The ratio of cases pending at the close of the year to the total number disposed of is very large in the case of Singhbhum, where it is observed that three officers disposed of only 91 cases with 59 witnesses.

9. There was an increase of 132 in the number of cognizable cases reported during the year, and a decrease of 118 in the number of non-cognizable cases, the total

Crime.

number of cases of both descriptions being 11,008 in 1892 as compared with 11,084 in 1891.

10. The following remarks which are taken from the Commissioner's report will show that there is still much room for improvement in the conduct and management of

Police.

the police force:—

"As a body, I cannot speak in terms of praise of the regular police force of this Division in the conduct of investigations. There are a few good officers who may be relied upon to put forth their whole strength and intelligence in the discharge of their duties; but as for the rest, they rarely manage to exhibit the possession of qualities of striking ability in important enquiries, requiring promptness, skill and delicacy in execution. In cases of murder, when the delinquent fails to confess his guilt, a clue is very seldom obtained, and the enquiry is prolonged without any tangible result, the police being incapable of overcoming the combination of village cliques formed to throw a protecting mantle over the offender. In house-breaking and dacoity their detective ability is at a low stand-point, and the jungly state of the road is invariably put forward, and accepted, as the excuse for failure to detect highway robberies. The responsibility of this state of things must in a certain degree rest with the District Superintendent, who, it is to be feared, does not take sufficient advantage of the numerous opportunities he has of educating his officers up to their duties and of infusing into them a spirit of activity, zeal and enthusiasm for their work. A judicious system of approval and commendation will do much more to train up an efficient body of men than a plan of fault-finding and punishment of petty irregularities. In fact, what is wanted is a stronger bond of sympathy between the police and those placed in authority over them. When an officer visits a police-station, something more is required than answering the series of inspection questions, and looking to the equipment of the men and the state of the buildings. A District Superintendent should spend several days at a station for the purpose of discussing with the officers concerned the details of pending enquiries, pointing out how the investigation should proceed, and mistakes committed in previous investigations. He should further make himself thoroughly acquainted with the rank-and-file of the force, for there is no greater inducement to exertion than for a man to know that he has a personality of his own which is recognized by his superior; and under this encouragement he is more likely to work with energy than if he is treated as a mere machine, to be moved about at the will and pleasure of his master."

11. The chaukidars, who in this division are partly under Act V (B.C.) of 1887, and partly under an old Regulation of 1817, appear from the reports received to have worked fairly well, except in Palamau. The conduct of the ghatwali police force, another adjunct to the regular police, was generally satisfactory, especially in Singhbhum, where there was not a single case of dacoity or highway robbery along the routes guarded by them. The ghatwals of Manbhum are, however, not as useful a body of men as they might be, and the Commissioner adds that there are many complex questions connected with them, and that their abolition and effacement under a system of commutation seems to be on many grounds desirable.

Criminal Justice.

12. The following table exhibits the work of the stipendiary Magistrates during the year:—

DISTRICT.	Sub-division.	Class of officers.	Number of officers.	Cases disposed of.	Persons disposed of.	Ratio per cent. of persons convicted to disposed of.	Number of witnesses examined.	Ratio per cent. of witnesses detained over two days to total number examined.	Ratio per cent. of cases confirmed in appeal to total appealed.	Number of A cases disposed of.	Number remanded six times and more.	Average of cases disposed of per officer.	Average of witnesses examined per case disposed of.	Ratio per cent. of column 12 to column 11.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Tazewburgh	Sadar	Stipendiary	5	671	1,068	60	8,423	3	61	421	9	154	5	2
		Ditto	2	788	980	60	2,129	3	57	350	2	360	3	6
Johardaga	Sadar	Ditto	8	1,716	3,111	49	5,545	5	67	404	32	202	3	3
		Do.	2	508	728	61	2,067	14	76	296	14	254	4	5
Singhbhum	Do.	Ditto	3	644	973	64	2,442	8	89	368	14	215	4	4
		Do.	8	1,561	2,169	48	7,053	5	71	281	10	188	5	4
Manbhum	Do.	Ditto	14	267	413	61	1,152	10	73	111	2	211	4	2
		Gebindpur												
		Total	204	6,045	9,472	64	24,731	6	70	2,231	83	204	4	4
		Total for 1891-92	29	6,400	9,454	64	26,180*	10	77	2,368	212	221	5	10

\* Shows the number of witnesses who attended.



The number of cases disposed of was less than in the previous year, being 6,045 against 6,406. The percentage of persons convicted remained the same, 54, and the number of witnesses detained for more than two days exceeded 10 per cent. of the number examined in only one district, Palamau. The number of A cases remanded six times and more was largest proportionately in the Sadar Courts of Lohardaga, but even there the ratio was not more than 8 per cent. of the total number of A cases disposed of. The Officiating Lieutenant-Governor is glad to notice the marked improvement in this respect.

13. The following table shows the work of the Honorary Magistrates:—

DISTRICT.	Sub-division.	Class of officers.	Number of officers.	Cases disposed of.	Persons disposed of.	Ratio per cent. of persons convicted to disposed of.	Number of witnesses examined.	Ratio per cent. of witnesses detained over two days to total number examined.	Ratio per cent. of decisions confirmed in appeal to total appealed.	Number of A cases disposed of.	Number remanded six times and more.	Average of cases disposed of per officer.	Average of witnesses examined per case disposed of.	Ratio per cent. of column 12 to column 11.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Hazaribagh	{ Hazaribagh Giridih	Honorary	1	387	407	74	641	.....	90	....	...	387	12	.....
		Do.	1	95	121	49	238	..	40	....	15	95	3	.....
Lohardaga	.. Ranchi ..	Do.	12	212	360	32	520	0	71	11	4	121	22	36
Palamau	.. Sadar ..	Do.	2	129	161	55	318	1	80	1	..	64	22	..
Singbhum	.. Do.	Do.	1	230	242	95	398	2	100	....	..	230	2	..
Manbhum	{ Do. Gohindpur	Do.	6	551	722	55	1,117	9	55	1	..	92	2	..
		Do.	5	111	273	46	563	7	40	2	..	28	4	..
Total			14	1,754	2,286	57	3,824	5	65	30	4	399	2	13
Total of 1891-92			0	1,876	2,265	58	3,811	31	81	117	12	208	2	6

One thousand seven hundred and fifty-four cases were disposed of by 18 Honorary Magistrates or Benches, giving an average of 99 cases for each Magistrate or Bench. The ratio per cent. of persons convicted was 57 as compared with 58 in the previous year, and the number of witnesses detained for more than two days was satisfactorily small. The Benches at Hazaribagh and Giridih examined 899 witnesses without a single case of such detention. The Ranchi Magistrates disposed of 11 A cases, of which 4 were remanded six times or more, but no delays of this kind are reported elsewhere, and the Officiating Lieutenant-Governor has to express his satisfaction with the generally useful character of the work done.

14. The following table shows the attendance of the Honorary Magistrates:—

DISTRICT	Number of Honorary Magistrates.	Number of times asked to attend.	Number of times actually attended.	NUMBER OF TIMES ABSENT*		
				With leave or notice.	Without leave or notice.	Total.
1	2	3	4	5	6	7
Hazaribagh ...	30	877	713	95	69	164
Lohardaga ...	10	258	196	48	14	62
Palamau ...	5	225	215+	6	8	14
Singbhum ...	4	220	179	9	32	41
Manbhum ...	41	719	511+	24	193	217

\* Does not include absence made up by attendance out of turn.

+ Excess attendance 4 days.

+ Excess attendance 9 days.

The attendance appears to have been worst in Manbhum.  
15. The following table shows the results in Sessions cases :—

DISTRICT.	Number of cases committed but pending at commencement of the year.	Number committed during the year.	Total number for disposal.	Number disposed of.	Number in which conviction obtained.	Number of cases in which sentence was modified or reversed by High Court.	Number of cases acquitted by Sessions Judge.	Number of cases otherwise disposed of.	Percentage of cases resulting in conviction to total cases disposed of.
1	2	3	4	5	6	7	8	9	10
Hazaribagh ... ..	2	7	9	7	4	2	3	...	57
Lohardaga ... ..	5	21	26	15	8	1	7	...	53
Palamau ... ..	...	10	10	7	5	2	...	...	71
Singbhum ... ..	1	6	7	7	5	...	...	...	71
Manbhum ... ..	4	18	22	19	15	2	4	...	79
Total	12	62	74	55	37	7	18	...	67

The percentage of cases resulting in conviction to the total number of cases disposed of was 67 for the Division. The percentage was over 70 in Palamau, Singbhum and Manbhum, but in Lohardaga and Hazaribagh the figures are 53 and 57 per cent., respectively. It is evident that officers in these districts have not been sufficiently careful in making committals.

16. The fine register for the year shows that the amount of outstanding fines exceeded the balance at the beginning of the year in the districts of Singbhum and Manbhum, while elsewhere the outstanding balance was reduced.

DISTRICT.	Balance outstanding at commencement of the year.	Amount imposed during the year.	Total demand.	Amount collected during the year.	Amount remitted or written off during the year.	Total collected and remitted.	Balance outstanding at the end of the year.
1	2	3	4	5	6	7	8
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Hazaribagh ... ..	5,407 13 5	7,350 0 0	13,417 13 5	7,859 8 0	1,419 0 5	9,278 14 5	4,148 15 0
Lohardaga ... ..	7,784 2 7	7,400 10 0	15,163 12 7	6,730 10 3	2,489 9 9	9,220 4 0	5,967 8 7
Palamau ... ..	708 13 6	2,507 7 0	3,176 1 6	1,801 12 0	479 5 0	2,371 1 0	805 3 6
Singbhum ... ..	3,876 4 11	4,231 15 3	8,108 1 2	3,403 0 0	110 15 6	3,514 0 3	4,594 3 11
Manbhum ... ..	3,070 0 0	9,778 14 9	13,748 11 9	7,539 7 9	742 3 2	8,081 10 11	5,667 3 10
Total	21,807 2 5	31,837 15 0	53,645 1 5	27,830 6 9	5,241 7 10	33,071 14 7	20,573 2 10

17. The following table shows the registration work of the year :—

DISTRICT.	Class of Registration office.	Number of offices.	Number of documents registered.	Average per office.
1	2	3	4	5
Hazaribagh ... ..	{ Special	1	2,100	2,100
	{ Rural	2	3,109	1,554
Lohardaga ... ..	{ Special	1	3,803	3,803
	{ Rural	1	1,297	1,297
Palamau ... ..	Special	1	1,153	1,153
Singbhum ... ..	Ex-officio	1	452	452
Manbhum ... ..	{ Special	1	4,428	4,428
	{ Rural	4	9,099	2,274
Total	{ Special	5	11,936	2,387
	{ Rural	7	13,505	1,929

The increase in the number of documents registered is mainly contributed by Manbhum. The Commissioner says:—

“The principal reason of the very remarkable increase in Manbhum seems to be the high price of food-grains. Owing to the deficiency of the last year's crops in the district, almost all classes had to purchase rice or paddy crops, and in order to procure money for the purpose, the middle and the poorer classes were obliged either to sell, or to mortgage, or to lease out in perpetuity their small holdings.”

The increase in Palamau is attributed to the large number of marriages celebrated during a year which was regarded as specially auspicious for this purpose, and the consequent expenditure often met by loans on the security of zarfeshgi leases.

The decrease in Singhbhum is said to be due to the fact that owing to the uncertainty of agricultural prospects, no loans were advanced on the security of land, while the failure of former enterprises discouraged the grant of mining leases.

18. The following table shows the demand, collection, remission and balances of land revenue and cesses:—

DISTRICT.	Class of demand.	Class of estates.	Number of estates.	DEMAND.		COLLECTIONS OF 1892-93.		BALANCE ON 1ST APRIL 1893.		REMARKS.
				Current.	Arrear.	Current.	Arrear.	Current.	Arrear.	
1	2	3	4	5	6	7	8	9	10	11
				Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Hazaribagh	Land revenue	I .. ..	68	48,632	...	48,636	...	20	...	Remitted Rs. 20.
		II .. ..	125	61,759	70	61,759	70	...	...	
		III .. ..	171	14,634	25	14,591	30	31	...	
		Total	...	1,25,025	108	1,21,936	100	57	...	
	Road cess	Estates	642	67,903	2,225	91,194	2,225	3,709	...	Ditto Rs. 2.
		Rent-free tenures	177	386	1,210	3,2	1,200	14	...	
		Mines, &c.	...	1,801	7	1,781	7	20	...	
	Zamindari dāk	Estates	208	6,023	4	8,538	4	453	...	
		District Total	...	2,31,138	3,554	2,29,831	3,545	4,285	1	
Lohardaga	Land revenue	I .. ..	7	19,060	800	19,060	800	...	...	Ditto Rs. 66.
		II .. ..	3	11,686	245	11,322	244	344	...	
		III .. ..	3	14,901	1,021	12,638	917	1,343	38	
		Total	...	44,737	2,966	43,010	1,961	1,727	39	
	Road cess	Estates	13	94,655*	3,392	81,047	3,392	10,598	...	* Both Road Cess and Public Works cess. † Including advance collection of Rs. 2,962.
		Rent-free tenures	...	...	...	...	...	...	...	
		Estates	1	4,548	...	7,510†	...	...	...	
	Zamindari dāk	Estates	...	...	...	...	...	...	...	
		District Total	...	1,43,930	5,458	1,31,597	5,353	12,325	39	
Palamau	Land revenue	I .. ..	40	10,668	...	10,668	...	...	...	‡ There is also a sum of Rs. 165 realized in advance for 1893-94. A sum of Rs. 20 has been remitted from the arrear demand, and Rs. 21 from the current demand.
		II .. ..	1	3	...	3	...	...	...	
		III .. ..	2	51,393	4,906	47,390†	4,981	3,982	5	
		Total	...	62,064	4,906	58,061	4,981	3,982	5	
	Road cess	Estates	660	37,875	3,157	32,683§	3,155	4,660	2	§ Rs. 1,182 was previously paid in advance. || Remitted Rs. 77. There is also a sum of Rs. 54-4 realized on account of process fees Rs. 153 was previously paid in advance, and there is a further sum of Rs. 810 realized during the year for future year.
		Rent-free tenures	...	5,973	2,324	5,708||	1,961	265	373	
		Estates	280	...	...	...	...	...	...	
	Zamindari dāk	Estates	...	1,03,012	10,327	95,802	0,987	8,907	380	
		District Total	...	...	...	...	...	...	...	
Singhbhum	Land revenue	I .. ..	1	4,267	...	4,267	...	...	...	¶ Remitted Rs. 812.
		II .. ..	1	668	...	668	...	...	...	
		III .. ..	2	63,502	935	61,729	93	833	...	
		Total	...	68,407	935	61,661	93	833	...	
	Road cess	Estates	1	0,412	...	9,402	...	10	...	
		Rent-free tenures	...	...	...	...	...	...	...	
		Estates	8	2,256	321	2,007	176	189	145	
	Zamindari dāk	Estates	...	80,105	1,500	79,133	239	1,032	145	
		District Total	...	...	...	...	...	...	...	
Manbhum	Land revenue	I .. ..	24	80,749	...	80,749	...	...	...	* Remitted Rs. 9. ** Exclusive of Rs. 13 paid in advance.
		II .. ..	2	1,000	...	1,000	...	...	...	
		III .. ..	...	...	...	...	...	...	...	
		Total	...	82,418	...	82,418	...	...	...	
	Road cess	Estates	75	84,055	29,855	49,531**	29,843	34,211*	3	
		Estates	20	6,802	...	6,802	...	...	...	
	Zamindari dāk	Estates	...	1,72,075	29,855	1,38,761	29,843	34,211	3	
		District Total	...	7,37,120	50,610	6,78,094	48,097	60,768	608	
		GRAND TOTAL FOR 1892-93.	...	...	...	...	...	...	...	
		GRAND TOTAL FOR 1891-92.	...	6,85,722	55,051	6,37,588	54,169	48,122	869	Total remission Rs. 1,755.

As regards land revenue the collections were as usual good, amounting to 98·05 of the gross demand, current and arrear. In Hazaribagh they were 99·93 per cent., and in Manbhum 100 per cent. of the gross demand. The total amount realized was Rs. 3,83,144 as against Rs. 3,81,562 in the previous year.

As regards road cess, the figures are not so satisfactory, as the outstanding balances show in some districts a considerable increase. The outstanding balance was largest in Manbhum, where it was Rs. 34,223 as compared with Rs. 29,855 in the preceding year, and the Officiating Lieutenant-Governor hopes that it will be found possible to obtain better results in future.

19. The working of the certificate departments of the various districts is shown below :—

DISTRICT.	Department.	Number pending at beginning of year.	Number issued during year.	Total for disposal.	Amount of certificates.	Number disposed of during year.	Amount realized.	Number pending at close of year.
1	2	3	4	5	6	7	8	9
Hazaribagh ... ..	All departments ... ..	216	488	684	Rs. 32,802	502	Rs. 17,213	182
Lohardaga ... ..	All departments ... ..	191	64	255	24,810	207	18,486	48
Palamanu ... ..	All departments ... ..	112	673	785	22,602	588	10,374	197
Singhbhum ... ..	All departments ... ..	267	27	294	3,389	155	12,384	139
Manbhum ... ..	All departments ... ..	175	794	969	70,011	678	45,505	291
GRAND TOTAL		961	2,026	2,987	1,54,514	2,130	1,07,902	857

The number of certificates pending at the close of the year was less than the number pending at the beginning, except in Palamanu and Manbhum where the disposals did not keep pace with the number issued during the year.

20. There were six Wards' estates and 54 Encumbered estates under Wards' and Encumbered management during the year. The collections, which owing partly to poor harvests were not as good as in the previous year, amounted in Wards' estates to Rs. 1,24,311, or Rs. 8,041 less than the current demand, and in Encumbered estates to Rs. 4,94,368 out of a current demand of Rs. 5,73,011, and a gross demand of Rs. 8,53,490. The progress made in paying off debts due by Encumbered estates is shown in the following table :—

DISTRICT.	DEMANDS (RENT AND CASSES).			Total collections (rent and cesses).	Remissions.	Balance.	Percentage of total collections on total demand.	EXPENDITURE OF YEAR.
	Arrear.	Current.	Total.					Payment of debts.
1	2	3	4	5	6	7	8	9
Hazaribagh	Rs. 52,580	Rs. 95,212	Rs. 1,47,792	Rs. 94,715	Rs. 17,302	Rs. 42,100	64·8	Rs. 53,123
Lohardaga	69,517	92,240	1,61,757	94,341	10,784	56,652	58·3	33,214
Palamanu ...	3,026	15,160	18,186	13,324	...	4,862	73·2	11,468
Singhbhum	1,51,396	84,811	2,36,207	79,154	1,313	1,55,782	33·6	31,857
Manbhum	24,437	93,236	1,17,673	88,523	1,036	28,135	75·2	17,596

21. The Commissioner remarks with satisfaction, which the Officiating Lieutenant-Governor shares, that while there has been a very small increase in the number of licenses the revenue has increased by about one-eleventh of the previous year's revenue,

amounting to Rs. 8,39,285, in 1892-93, as compared with Rs. 7,65,646 in 1891-92. A table is appended from which it will be seen that the bulk of the revenue is derived from country spirits.

DISTRICT.	COUNTRY SPIRITS.				GANJA AND BHANG.				OPIUM.			
	Number of shops.	License fees.	Gross gallons.	Total receipts.	Number of shops.	License fees.	Gross maunds.	Total receipts.	Number of shops.	License fees.	Gross maunds.	Total receipts.
1	2	3	4	5	6	7	8	9	10	11	12	13
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Hazaribagh ...	132	1,64,261	5,513	1,62,638	46	7,322	42	14,211	13	1,468	7	5,844
Lohardaga ...	138	2,64,942	1,199,691	2,51,942	32	8,727	54	29,656	8	5,636	18	19,148
Palamau ...	124	1,26,280	769,943	1,26,286	23	2,445	29	5,746	5	143	3	1,724
Singhbhum ...	47	39,316	18,851	39,316	9	2,958	15	6,563	8	3,604	11	11,688
Manbhum ...	133	1,05,633	49,595	1,00,427	50	13,695	45	24,733	13	4,193	10	11,597

Revenue from all sources.				Rate per head of population.			
			Rs.			Rs.	A. P.
Hazaribagh	...	...	1,88,549	...	...	0	2 7
Lohardaga	...	...	3,00,087	...	...	0	4 3
Palamau	...	...	1,35,178	...	...	0	3 7
Singhbhum	...	...	65,248	...	...	0	1 10
Manbhum	...	...	1,43,023	...	...	0	1 11
			8,39,285				

22. The Officiating Lieutenant-Governor is glad to notice that considerable attention is paid in this Division to arboriculture. The following account is taken from the Commis-

sioner's report:—

"In Hazaribagh 1,266 new trees, mostly poinciana, sissoo and Algerian date, were planted, and 3,716 old trees were maintained, at a total cost of Rs. 702. The nursery garden in the Road Cess office compound in this district contained 2,060 plants, viz. 1,000 sissoo, 160 mango, 300 poinciana-regia, 350 eucalyptus, 30 jaman, 200 kunar, 60 karanj, and 20 nim. In Lohardaga 748 seedlings, principally of karanj, mango, jaman, tamarind and mahua, were newly planted to fill up gaps caused by the drought in April and May 1892, and over 9,000 plants along 63 miles of roads were maintained and 6,210 new gabions were supplied for the protection of the plants. Arrangements were also made to sow seeds and rear seedlings in pots in the nursery garden in the Road Cess compound in this district, and 300 holes were dug and filled up with manure for planting trees during the ensuing season on the sides of one-and-a-half miles of road on Mr. Worsley's plan. The total expenditure on account of arboriculture in this district amounted to Rs. 1,399. In Palamau the existing roadside trees were maintained, and 300 seedlings were transplanted from the nursery at Daltonganj to the three main roads which branch out from that place at a total cost of Rs. 80. In Singhbhum nothing was done in this matter during the year. The planting of avenues along roadsides proved a failure in this district, owing to the dryness of the climate and the stony nature of the country over which the roads run, and the Committee, with their limited funds, could not afford to pay for the construction of wells along roadsides. The Deputy Commissioner says that an attempt will be made during the current year to plant trees on the system recommended by Mr. Worsley. In Manbhum Rs. 193 only were spent in entertaining establishment for watering and looking after the trees already planted, and Rs. 100 in renewing and repairing gabions. The trees planted on the sides of roads in this district are bor, peepul, jack (kantal), jaman, kusum, mahua, nim, and mango."

23. The educational results of the year continue to be encouraging. Taking public and private institutions together, there was a net increase of 95 schools and 2,394

pupils. Forty-six out of 55 candidates passed the Entrance examination, though the results of the upper and lower primary scholarship examinations were not so good. The number of girls' schools declined from 124 to 116, the total number of girls attending these and boys' schools being 5,544 as compared with 5,465 in the preceding year.

The following table exhibits certain statistics regarding education in schools under public management:—

DISTRICT.	Class of schools.	Number of schools.	Number of pupils on rolls.	Cost.						Cost per head of pupils.	Population of district.	Number of boys of school-going age.	Percentage of boys at school going age according to the Director of Public Instruction's Report.
				Provincial.	District Board.	Municipality.	Fees.	Other.	Total.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Hazaribagh	High	2	277	Rs. 3,050	Rs.	Rs.	Rs. 4,062	Rs. 1,112	Rs. 8,830	Rs. 31.9	.....	.....	.....
	Middle	15	1,010	2,006	.....	838	1,171	4,252	8,087	8.9	.....	.....	.....
	Primary	404	14,134	13,489	.....	117	10,199	5,416	29,251	2.0	.....	.....	.....
	Special	3	12	152	.....	.....	.....	.....	152	12.6	.....	.....	.....
	Total	424	15,433	19,603	.....	80	16,032	10,780	47,220	3.0	.....	.....	15.8
Palamau	High	1	118	(a) 1,154	.....	40	1,914	1,823	4,081	41.8	.....	.....	.....
	Middle	2	132	(b) 518	.....	.....	144	241	903	6.8	.....	.....	.....
	Primary	162	3,790	3,971	.....	65	2,297	122	6,445	1.7	.....	.....	.....
	Special	1	3	35	.....	.....	.....	.....	36	12.0	.....	.....	.....
	Total	166	4,052	5,679	.....	95	4,355	2,186	12,315	3.0	.....	.....	8.6
Lohardaga	High	1	347	2,249	.....	.....	4,603	.....	6,852	19.7	.....	.....	.....
	Middle	10	932	4,431	.....	540	513	12,016	17,500	18.8	.....	.....	.....
	Primary	453	10,922	12,483	.....	182	7,040	12,060	31,774	2.9	.....	.....	.....
	Special	12	147	5,760	.....	.....	4	1,304	7,168	48.7	.....	.....	.....
	Total	476	12,348	24,913	.....	722	12,100	25,479	63,284	5.1	1,128,885	82,790	13.8
Singbhum	High	1	130	3,690	.....	8	1,153	6	4,297	33.0	.....	.....	.....
	Middle	11	679	2,214	.....	.....	321	1,199	3,825	5.6	.....	.....	.....
	Primary	370	14,562	10,804	.....	240	5,052	7,403	23,565	1.6	.....	.....	.....
	Special	5	36	610	.....	.....	.....	539	1,158	32.2	.....	.....	.....
	Total	387	15,407	16,727	.....	248	6,666	9,144	32,785	2.1	.....	.....	3.3
Manbhum	High	2	396	2,075	.....	.....	5,483	942	8,500	21.4	.....	.....	.....
	Middle	22	1,072	5,700	.....	541	2,475	4,094	7,830	11.9	.....	.....	.....
	Primary	676	13,956	13,763	.....	422	15,825	12,354	42,306	3.0	.....	.....	.....
	Special	11	54	530	.....	.....	.....	530	530	9.0	.....	.....	.....
	Total	611	15,478	22,128	.....	963	23,763	17,380	64,241	4.1	.....	.....	16.4
Total of Division	High	7	1,268	11,024	.....	48	17,855	3,883	33,410	26.3	.....	.....	.....
	Middle	60	3,825	15,809	.....	1,749	4,704	21,792	44,054	11.6	.....	.....	.....
	Primary	2,025	57,373	54,612	.....	1,046	40,413	37,370	1,33,341	2.3	.....	.....	.....
	Special	32	252	7,103	.....	.....	4	1,933	9,040	35.8	.....	.....	.....
	Grand Total	2,124	62,718	80,548	.....	2,843	62,976	64,978	2,10,845	3.5	.....	.....	16.7
GRAND TOTAL FOR 1891-92.		2,041	60,442	86,347	.....	2,321	56,265	56,255	2,01,785	3.3	4,628,792	341,663	16.7

(a) Excluding Rs. 112 for building and library.  
(b) Excluding Rs. 56 for building.

The number of primary schools increased in every district, except Manbhum. The increase was greatest in Palamau which is striving to place itself on an educational equality with the rest of the division. Taking the division as a whole, the ratio of boys at school to the total number of a school-going age is a little higher than in Patna, which is the worst in all Bengal in this respect. The Municipalities do little to support education and contribute more to middle than to primary education. Under recent orders, however, it is hoped that Municipalities will in future make provision for the education of half the boys of school-going age within their limits. It has again to be noticed that the cost of educating a pupil in the middle schools in Lohardaga appears to be excessive, and this year it is even higher than last. A similar observation may be made in respect to the cost of primary education in Manbhum, which amounted to Rs. 3 per pupil.

Mr. Grimley was more than once struck while on tour with the large assortment of books which appear to be necessary in middle and primary schools. In the first class of one school 14 different books were in use, the cost of which amounted to Rs. 8 or Rs. 9, or about three times as much as the yearly fees paid

by each boy. The Director of Public Instruction will be requested to consider this point.

24. The following table gives details in regard to the dispensaries in the division, the number of which was increased by the opening of a dispensary at Giridih :—

DISTRICT.	Number of dispensaries.	INCOME FROM—					DAILY AVERAGE PATIENTS.		Ratio per cent. of out-door patients to total population.
		Government.	District Board.	Municipality.	Subscriptions.	Total.	In-patients.	Out-patients.	
1	2	3	4	5	6	7	8	9	10
Hazaribagh ...	4	Rs. 115	Rs. ....	Rs. 1,844	Rs. 1,880	Rs. 3,839	8'87	186'01	'9
Lohardaga ...	2	355	....	1,955	705	3,025	7'87	55'98	'6
Palamau ...	1	217	....	90	940	1,347	4'35	30'27	'3
Singbhum ...	1	235	....	325	308	848	61'1	10'71	'3
Manbhum ...	8	450	....	2,850	3,600	7,199	26'37	141'56	1'7

Manbhum continues to be the only district which is at all well provided in this respect. The table does not include private dispensaries, such as those of the Dublin University Mission and Pachamba Scotch Mission which are open to the public. Speaking of the Lohardaga dispensary, the Commissioner says:—

“The usefulness of this institution is much hindered by the fact that the room which ought to be set apart for indoor patients is occupied as an office by the Municipal Commissioners. Here, as elsewhere, the subscriptions are sadly in arrears, and even the contribution of the municipality towards the medical officer's salary is not paid with proper regularity.”

The Lieutenant-Governor trusts that immediate measures will be taken to remedy the state of things disclosed.

Liberal subscriptions in aid of the Dufferin Fund were received during the year and since its close from the following gentlemen—

	Rs.
Maharaja of Chota Nagpur ...	2,000
Kumar Jagat Mohan Nath Sahi ...	1,750
Raja Nam Narain Singh of Ramgar ...	5,000
Babu Sarup Narain Singh of Padma ...	1,500
Tekait Todal Narain Singh of Gawan ...	2,000
Babu Rameshar Nath Singh of Kunda ...	1,000

These sums will be utilised to provide zanana hospitals at Hazaribagh and Ranchi.

25. In this Division, where Act III (B.C.) of 1885 is not in force, self-governing institutions are represented by the Local Self-Government Institutions. Municipalities and the District, Road and Education Committees. The municipalities are few and far between, and though the Commissioner's remarks are somewhat colourless, the Municipal Commissioners appear for the most part to display as much interest in their work as similar bodies elsewhere. At Ranchi, for instance, some attention was paid to water-supply and conservancy, and at Lohardaga to sanitation, while at Chaibassa the roads and wells were well maintained, collections were closely supervised, and outstanding arrears were largely cleared off. There is, moreover, a pleasant absence of the internal disputes and jealousies which sometimes occur in other places claiming to be more advanced in the art of self-government. On the Road and Education Committees the greater part of the work is done by the official members.

State of public feeling.

26. The Commissioner says—

“The only political institution of this Division is the Congress Committee at Hazaribagh with branch committees at Giridih, Ranchi and Purulia. Only one meeting, to elect delegates for the 8th Indian National Congress, was held at Hazaribagh. Ten persons were elected, but only three attended the Congress. The branch committees have displayed no signs of activity, except the one at Purulia, which collected a few rupees for the general purposes of the movement.”

As regards the agrarian problem in Lohardaga, the Commissioner writes :—

"In Lohardaga the state of feeling between landlords and tenants continues to be unsatisfactory, especially where there are Christian raiyats. 'The conversion to Christianity,' remarks the Deputy Commissioner, Colonel Gordon, 'seems to have brought about a complete change in the minds of these people, and they now seek for total emancipation from the *bet begari* system. The zamindars, finding resistance difficult, their authority and influence on the wane, and support in courts is expensive and uncertain, are giving way, and nothing but suits for commutation can now save them from altogether losing these old feudal dues from their tenants.' Notwithstanding the existence of this feeling of antagonism, there has been no open manifestation of it such as occurred a few years ago, and the attitude of both parties may be described as one of quiescent expectancy regarding the action of Government. They seem to understand that legislative action of some kind is impending, but are not particularly curious to learn the nature of it; and when the principal zamindars were invited to a conference to discuss the proposed measure, the invitation met with little response, and those who did attend were not able to throw much light on the subject."

27. The Maharaja of Chota Nagpur and his brother Kumar Jagat Mohan Nath Sahai Deo are mentioned for their loyalty to Government, and the latter is an active and useful Honorary Magistrate. In Hazaribagh, Raja Ram Narain Singh of Ramgar is loyal and well-intentioned, while Tekait Todai Narain Singh of Gawan whose title of Tekait was recently conferred on him by the Viceroy, and Babus Saroda Narain Singh and Poresb Nath Singh of Serampur and Palganj are specially selected for favourable mention. In Palamau Thakurai Bhagabat Doyal Singh of Chainpur received the title of Rai Bahadur in recognition for the service which he has rendered the State in the past.

28. The Officiating Lieutenant-Governor thanks Mr. Grimley for his full and interesting report and for his efficient administration of the Division. The remarks which he makes towards the close of his report regarding the necessity for the establishment of a sub-division in the south-west of the large Lohardaga district will be considered in the Judicial Department. His observations on the character of officers serving under him will be communicated to the Appointment Department as usual.

By order of the Lieutenant-Governor of Bengal,

M. FINUCANE,  
*Offg. Secretary to the Govt. of Bengal.*



**RESOLUTION ON THE REPORT OF THE COMMITTEE FOR THE  
MANAGEMENT OF THE CALCUTTA ZOOLOGICAL GARDENS  
FOR THE YEAR 1892-93.**

REVENUE DEPARTMENT—MISCELLANEOUS No. 4539.

*Calcutta, the 1st November 1893.*

**RESOLUTION.**

**READ—**

The Report of the Honorary Committee for the management of the Zoological Gardens, Calcutta, for the year 1892-93.

The actual receipts of the Garden, excluding the opening balance of Rs. 4,298 and the sum of Rs. 100 realized at the end of March 1893 and credited into the Treasury on the 1st April 1893, amounted to Rs. 42,144 against Rs. 43,211 in the previous year; and the expenditure decreased from Rs. 46,548 in 1891-92 to Rs. 41,202 during the year under report, the decrease being chiefly due to a considerable reduction in the outlay on original construction. With the surplus of Rs. 942, the balance at credit of the Garden increased from Rs. 4,298 to Rs. 5,240.

2. The number of visitors who were admitted to the Garden on payment of entrance fees was 139,183 against 116,382 in the previous year. This is the highest number admitted in any year except 1883-84, the year of the Calcutta International Exhibition.

The following statement shows the number admitted each year since 1878-79:—

*Comparative statement of visitors from 1878-79 to 1892-93.*

Year.	Visitors.	Year.	Visitors.
1878-79	111,291	1885-86	108,944
1879-80	130,826	1886-87	96,099
1880-81	98,760	1887-88	108,041
1881-82	120,749	1888-89	111,573
1882-83	126,080	1889-90	109,569
1883-84	188,532	1890-91	136,410
1884-85	120,813	1891-92	116,382
		1892-93	139,183

The chief causes of this large increase in the number of visitors to the Garden are—(1) the growing popularity of the institution, and (2) the opening of a direct carriage route from the Garden to Kalighat, rendering it more easily accessible to the large number of pilgrims who daily resort to that shrine.

3. Altogether 367 additions were made to the collection, including 97 mammals, 149 birds, and 121 reptiles. The following are mentioned by the Committee as being among the more interesting animals acquired:—(1) A pair of Patagonian Cavies (*Dolichotis patagonica*, Shaw) obtained by exchange from Mr. Carl Hagenbeck of Hamburg; (2) a Brazilian Tapir (*Tapirus americanus*, Gmel) from South America, and a Baird's Tapir (*Tapirus bairdi*, Gill) from Central America, acquired by exchange; (3) the two little weavers, acquired by purchase on account of their superior beauty and rarity in Indian markets; (4) a fine collection of birds consisting of Flamingos, Saras and Kulung Cranes, and other species, obtained from Rajputana.

4. The Lieutenant-Governor is glad to learn that the popularity of the Zoological Garden with the students and teachers of the various schools and colleges of Calcutta continued undiminished. With regard to the position which the Garden takes in the education of the people, the Committee write as follows:—"Applications from heads of institutions for free admission of students were frequently received and granted. It is also a satisfactory indication of the educating influence of the Garden that authors of elementary books and primers in the vernacular seek to stimulate the faculty of observation of their juvenile readers by illustrations and anecdotes of animals exhibited here."

5. The Lieutenant-Governor notices with pleasure that the laboratory for the purpose of conducting experiments with, and testing the various alleged remedies for snake-bite which are from time to time brought to notice, and for other physiological and biological investigations, for which Babu Joy Gobind Law, a wealthy citizen of Calcutta, gave a liberal donation, already acknowledged by Government, is now nearly complete. It is expected that experiments will be undertaken in the ensuing cold season.

6. The thanks of the Lieutenant-Governor are due to the members of the Committee for their efficient management of the Garden.

ORDER.—Ordered that a copy of this Resolution be forwarded to the Honorary Secretary to the Committee for information, and that it be published in the *Gazette*.

By order of the Lieutenant-Governor of Bengal,

M. FINUCANE,

*Offg. Secretary to the Govt. of Bengal.*

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IMPERIAL INSTITUTE IN LONDON.

The following papers are published for general information.

M. FINUCANE,

*Offg. Secy. to the Govt. of Bengal.*

REVENUE DEPT.,

The 9th November 1893.

Circular No.  $\frac{59}{73}$ .

*Extract from the Proceedings of the Government of India, in the Revenue and Agricultural Department (Museums and Exhibitions),—under date Simla, the 3rd October 1893.*

RESOLUTION.

READ the following papers:—

1. Despatch from Her Majesty's Secretary of State for India, No. 9 dated 20th January 1887, and enclosures.
2. Despatch to Her Majesty's Secretary of State for India, No. 8, dated 1st November 1887.
3. Despatch from Her Majesty's Secretary of State for India, No. 25, dated 29th March 1888.
4. Despatch from Her Majesty's Secretary of State for India, No. 60, dated 10th July 1890, and enclosures.
5. Despatch from Her Majesty's Secretary of State for India, No. 13, dated 26th February 1891, and enclosures.
6. Despatch to Her Majesty's Secretary of State for India, No. 52, dated 30th June 1891.
7. Circular to Local Governments and Administrations, No.  $\frac{7}{1}$ , dated 17th July 1891.
8. Despatch from Her Majesty's Secretary of State for India, No. 63, dated 17th September 1891.
9. Circular to Local Governments and Administrations, No.  $\frac{3}{2}$ , dated 24th October 1891.
10. Despatch to Her Majesty's Secretary of State for India, No. 10, dated 10th February 1892.
11. Despatch from Her Majesty's Secretary of State for India, No. 24, dated 14th April 1892.
12. Circular to Local Governments and Administrations, No. 25, dated 24th June 1892.
13. Circular to Local Governments and Administrations, No.  $\frac{3}{3}$ , dated 16th July 1892.

Many enquiries having been received by the Government of India on the subject, the following explanation of the constitution and objects of the Imperial Institute is published for general information.

2. In December 1886 an organising Committee appointed by His Royal Highness the Prince of Wales, with Lord Herschell as President, submitted their report, copies of which were received by the Government of India and circulated to Local Governments and Administrations in February 1887.

3. Lord Herschell's Committee recommended that the Institute should comprise two sections—one for the United Kingdom, the other for the Colonies and India. They explained in the 9th and following paragraphs of their report that—

“(9) the object of the Colonial and Indian Section will be to illustrate the great commercial and industrial resources of the Colonies and India, and to spread a knowledge of their progress and social condition.

“(10) to this end provision should be made for—

- (1) the display in an adequate manner of the best natural and manufactured products of the Colonies and India, and, in connection with this, the circulation of typical collections throughout the United Kingdom;
- (2) a hall for the discussion of Colonial and Indian subjects, and for receptions connected with the Colonies and India;
- (3) the formation of Colonial and Indian libraries, and establishing in connection therewith reading, news, and intelligence rooms;
- (4) the incorporation in some form into the proposed Institute of the Royal Colonial Institute and Royal Asiatic Society if, as is hoped, it be possible to bring about such a union;

- (5) the collection and diffusion of the fullest information in regard to the industrial and material condition of the Colonies, so as to enable intending emigrants to acquire all requisite knowledge. Such information might be advantageously supplemented by simple and practical instruction. An emigration office of this character should be in correspondence with the provincial towns, either through the free libraries or by other means, so that information may be readily accessible to the people. These objects would be greatly facilitated if, as may be hoped, the Government should consent to the transfer to the buildings of the Institute of the recently formed Emigration Department, which would, by a close connection with the Institute, largely increase its usefulness.

"11. Facilities might be afforded for the exhibition of works of Colonial and Indian Art.

"12. It is also considered desirable that means should be provided, not for a general exhibition, but for occasional special exhibitions of Colonial and Indian produce and manufactures. At one time a particular Colony or portion of the Empire may desire to show its progress; at another time a general comparison of particular industries may be useful. Whilst the permanent galleries would exhibit the usual commercial or industrial products of the several Colonies and India, the occasional exhibitions would stimulate and enlist the sympathies of Colonial and Indian producers, and keep up an active co-operation with the industrial classes of this country."

4. The Colonial and Indian section has since the date of the Committee's report been subdivided into sections for each Colony, and there is now a distinct section for India, which, for the purposes of this Resolution, will be referred to as "the Indian section."

The scope of the Indian section has been enlarged by the introduction of arrangements for the teaching of Oriental languages thus described in the Year Book of the Institute for 1892:—

"In 1887 it was suggested that a School of Modern Oriental Studies should be established as a branch of the Institute in imitation of the very efficient establishments of this kind which are carried on with Government resources in France, Germany, and Austria. The promulgation of this proposal led to negotiation with the authorities of University College and King's College, London, which resulted in their co-operation with the Institute in the establishment of the School. A Special Committee having been appointed to organise a system of work, it was arranged that classes for instruction in the Oriental languages required by students qualifying for examinations for the Indian Civil Service should be held at University College, while Modern Oriental languages, other than the Indian languages, should be taught at King's College, and that the Imperial Institute should undertake the general administrative and financial work. The School was officially opened in January 1890, when an inaugural address was delivered by Professor Max Müller at the Royal Institution in the presence of His Royal Highness the Prince of Wales. The daughters of the late Colonel W. J. Ouseley (Bengal Army) have established and endowed in his memory three scholarships in Arabic and Persian in connection with the School, each one of the value of not less than £50 per annum."

Since 1887 subscriptions to the amount of £101,550 have been raised in this country, and constitute more than one quarter of the total subscriptions received from all sources by the Managing Committee in London. The entire sum contributed has been utilized partly for the constitution of a permanent endowment fund, which amounted in 1892 to £141,520, and partly for the construction of the building.

The Institute, of which the foundation stone was laid by the Queen on the 4th of July 1887, was formally opened by Her Majesty on the 10th May 1893.

5. It was originally intended that a Committee of the Indian section should be formed in India with the Viceroy as President, and in 1887 the names of members were forwarded to the Secretary of State. This scheme was, however, superseded by the constitution framed in 1890, in pursuance of the charter granted to the Institute in May 1888, under which the Institute is controlled by a governing body or general Council of not less than 120 members or governors, of whom 15 are appointed to represent India. The Indian Governors may be selected in such manner as the Governor General in Council for the time being may direct.

6. The following rules have been prescribed for the appointment of the Indian representatives:—

Three are to be appointed annually by the Governor-General in Council; six by the Provinces, including Native States, in rotation; four by the Chambers

of Commerce in rotation, and two by Native institutions: provided that no representative can be appointed who will not be resident in England during his term of office.

The term of office commences and ends on the 23rd of July, but a fresh nomination may be made at any intervening date in the event of office being vacated by the return of a member to India or for any other reason.

The Native States and Associations to be represented each year will be selected by the Government of India after ascertaining what eligible candidates are resident in England, and after correspondence with the rulers of the Native States and with the Native institutions concerned.

Provinces and Chambers of Commerce, in the order below prescribed for the next three years, will forward to the Secretary in the Department of Revenue and Agriculture the names of proposed representatives on or before the 1st of June. In each case three names may be submitted in the order in which it is desired that the offer of a governorship for the ensuing year may be made to the nominees. If no one of the nominees accept, the Government of India will select a representative. If no communication is received before the 1st of June from any Province or Chamber of Commerce entitled to a nomination, either the offer will be made to any existing representative, or a representative will be selected by the Government of India.

The following is the rotation prescribed for the next three years:—

	1893-94.	1894-95.	1895-96.
Provincial representatives.	Madras.	Burma.	Bengal.
	Punjab.	Central Provinces.	Bombay.
	Bengal.	Assam.	North-Western Provinces and Oudh.
Representatives of Chambers of Commerce.	Bombay.	Madras.	Burma,
	North-Western Provinces and Oudh.	Punjab.	Central Provinces.
	A Native State.	A Native State.	A Native State.
	Calcutta.	Northern India.	Karachi.
	Bombay.	Calcutta.	Northern India.
	Madras.	Bombay.	Calcutta.
	Rangoon.	Madras.	Bombay.

7. The Members of the Indian Section of the governing body in 1892-93 were:—

On behalf of the Government of India—

W. T. Thiselton Dyer, Esq., C.I.E., C.M.G., F.R.S.

General James T. Walker, R.E., C.B., LL.D. (late Surveyor-General of India).

George Watt, Esq., M.B., C.I.E. (Reporter on Economic Products to the Government of India).

On behalf of Provinces and Native States—

Madras—David F. Carmichael, Esq. (late Madras Civil Service).

Bengal—Philip Nolan, Esq. (Secretary to the Government of Bengal).

North-Western Provinces and Oudh—W. S. Halsey, Esq. (late Bengal Civil Service).

Punjab—Baden H. Baden-Powell, Esq., C.I.E. (late Bengal Civil Service).

Native States (Jeypur)—Surgeon-Lieutenant-Colonel T. H. Lendley, C.I.E. (Residency Surgeon, Jeypur).

On behalf of Indian Chambers of Commerce—

Bombay—Sir Frank Forbes Adam, C.I.E. (of Messrs. Graham & Co., Manchester).

Rangoon—James Annan Bryce, Esq. (of Messrs Wallace Brothers).

Madras—George G. Arbuthnot, Esq.

Calcutta—Sir Alexander Wilson, Kt. (of Messrs. Matheson & Co., London).

On behalf of Indian Institutions—

Poona Sarrajanik Sabha—Dadabhai Naoroji, Esq., M.P.

Bengal British Indian Association—Sir William Wilson Hunter, B.C.S.I., C.I.E.

8. Fellows of the Imperial Institute are elected under rules, of which a copy is appended to this Resolution, and which explain the conditions and privileges attached to Fellowship. Application for election as Fellow, or for any information that may be required regarding the Institute, should be made to the Secretary, Imperial Institute, South Kensington.

9. The Government of India have decided that the most effective way in which the Imperial Institute can be made to serve the interests of India is to utilise it both for the purpose of attracting attention to the various economic

products of India, especially those which are little known, and for obtaining through the agency of the governing body the trial or analysis by experts of products more or less new to commerce. The objects held in view will be more fully gathered from the following explanation embodied in the preface to the series of Commercial Hand-books which are provided to the Institute by the Department of Economic Products:—

“The Government of India have arranged to provide to the Imperial Institute for the illustration of the Economic Products of India—

- (A) a descriptive catalogue or dictionary;
- (B) an index collection of all products;
- (C) a commercial collection of special products;
- (D) a hand-book descriptive of C.

A. The descriptive catalogue has been completed, and is termed the “Dictionary of the Economic Products of India.” The compilation has occupied eight years, and has been made under the editorship of Dr. G. Watt, c.i.e., Reporter on Economic Products to the Government of India. It has been confined to the collection of facts and statistics available up to the date of the publication of the work.

To each product there is assigned in the dictionary a separate number, which will be permanently maintained for purposes of reference.

B. The index collection will, when completed, comprise small samples of every economic product of India, which will bear the same numbers as those assigned to the products in the dictionary.

C. The commercial collections are on a larger scale. The number of products of which a collection is provided each year will be limited to about 20.

Each collection will comprise as complete a set of specimens of the product in its raw and manufactured state as is necessary for the fulfilment of the objects with which the commercial collections and hand-books are provided.

D. The hand-books will supply, in a separate pamphlet for each product, the information contained in the dictionary, amplified by supplementary facts and statistics, and illustrated by maps, diagrams, photographs, etc.

The objects of the commercial collections and hand-books which accompany them are—

- (1) To secure, while each collection is being made for the Institute, a thorough and special investigation in India through which fresh information regarding the product concerned, not contained in the dictionary, may be obtained.
- (2) To illustrate the dictionary in a manner more complete than can be effected by the index collection.
- (3) In the case of products which are not generally known—
  - (a) to bring them to the notice of those interested;
  - (b) to indicate the extent to which and conditions under which they are procurable;
  - (c) to ascertain their commercial value;
  - (d) to secure, through the governing body of the Institute and commercial experts whom they may consult, such special trial or analysis of them as can be more effectually made in England than in India.”

The initial cost of the collections has been met from a special grant of Rs. 10,000. An annual grant of £600 is provided for the maintenance and completion of the existing collections, and a further grant of £400 again is allowed for the salary of the official Curator. Rupees 4,000 are also contributed annually by Local Governments towards the collection of products for the Institute. The Indian Section is under the general superintendence of Sir F. Abel, Secretary to the Institute, and the collections are under the charge of Mr. J. R. Royle, c.i.e., of the India Office, who has been appointed official Curator of the Indian Courts.

10. The index collection has reached an advanced stage.

Commercial collections have, under the direction of Mr. E. Thurston, Officiating Reporter on Economic Products, been already provided for the representation of the following products:—

- |  |                              |
|--|------------------------------|
| 1. Padauk timber.                          | 11. Linseed.                 |
| 2. Ipecacuanha.                            | 12. Fibres for brush making. |
| 3. Podophyllum emodi.                      | 13. Cutch.                   |
| 4. Sida fibre.                             | 14. Kút (Ooplate).           |
| 5. Jute.                                   | 15. Turpeth (Indian jalap).  |
| 6. Al (Morinda) dye.                       | 16. Kaméla dye.              |
| 7. Resin and turpentine from Indian pines. | 17. Garjan and in oils.      |
| 8. Iron, southern districts of Madras.     | 18. Jalap.                   |
| 9. Coal.                                   | 19. Mica.                    |
| 10. Adhatoda vasica.                       | 20. Castor oil.              |
|  | 21. Gingelly or sesame oil.  |

Collections of the following are in progress—

- |   |   |
|---|---|
| 22. "East Indian walnut timber"<br>( <i>Albizia Lebbek</i> .) | 26. India-rubber.                             |
| 23. Silk.   | 27. Rose wood ( <i>Dalbergia latifolia</i> ). |
| 24. Ground-nut.   | 28. Soapstone ( <i>Steatite</i> ).            |
| 25. Barley.   | 29. <i>Chaulmuga</i> oil.                     |
|   | 30. Salep.                                    |

Hand-books, issued under the editorship of Mr. Thurston, have accompanied the twenty-one commercial collections already sent to England, and hand-books descriptive of the collections in progress are in course of preparation. These may be purchased for a nominal price either at the Imperial Institute, at the office of the Reporter on Economic Products in Calcutta, or from the Superintendent of Government Printing, Calcutta.

11. Galleries have been provided in the Institute building, in which the index collections are arranged in such a way as to be easily studied by interested visitors, and there are also working rooms for detailed examination of the commercial collections by those connected with the trades to which they appertain.

12. Special arrangements have, since the opening of the Institute, been set on foot, under the direction of Sir Frederick Abel, with the object of facilitating the trial and analysis of commercial products by experts either at the Institute itself, where rooms and laboratories have been provided for the purpose, or in local manufactories, chemical works, and other appropriate places. Mr. Theodore Cooke, C.I.E., late Principal of the College of Science, Poona, has recently been appointed as Technical Sub-Director of the Institute and to supervise arrangements for securing the investigation of new products from India and the Colonies.

13. All correspondence in India connected with the collections supplied to the Institute is conducted by the Reporter on Economic Products, to whose office at the Indian Museum, Calcutta, all enquiries or letters on the subject should be addressed.

14. The names of Governors appointed for the Indian Section for the year 1893-94 will be published shortly in the Gazette of the Government of India.

ORDER.—Ordered, that the above be published for general information in the Supplement to the *Gazette of India*, and that copies be forwarded to the several Local Governments and Administrations for information and publication in the Local Gazette, and to the Chambers of Commerce noted on the margin.

Secy to the Govt of Madras	
" " Bombay	
" " Bengal	
" " N W P. and Oudh	
" " Punjab	
Chief Commr of the Central Provinces	
" " Burma	
" " Assam	
" " Coorg	
" " Ajmere	

Secretary for Berar to the Resident at Hyderabad	
Secy, Chamber of Commerce Madras	
" " " Bombay	
" " " Benal	
" " " Bangalore	
" " " Northern India	
" " " Karachi	

[True extract.]

E. C. BUCK,

*Secretary to the Government of India.*

## APPENDIX.

### ELECTION, SUBSCRIPTIONS, AND PRIVILEGES OF FELLOWS OF THE IMPERIAL INSTITUTE.

#### 1.—AS TO PRIVILEGES OF FELLOWS

Every Fellow elected in the manner provided by the Regulations approved under the Charter of Incorporation shall, during the continuance of his Fellowship, be entitled to attach to his name the distinctive designation "F. I. Inst."

Every Fellow upon his election shall receive a diploma or other emblem of his Fellowship.

Fellows shall be entitled to the Annual Report of the Institute and to publications issued from time to time by the Institute, subject to such arrangements as may be made by the Executive Council as to the delivery or transmission of the same.

Fellows shall have access to the Commercial and Industrial Collections on two days in the week when they are not open to the public, and shall on any one of those days have the privilege of introducing two visitors to the Collections.

A special Refreshment Department, including Smoking Room, will be provided for the use of Fellows, to which they will be entitled on any day to introduce two visitors.

The accommodation provided for the use of Fellows will include a Post Office and *Poste Restante*, Telegraph, Telephone, and Messenger Departments, Cloak Room and Parcels Office, and a private Lavatory.

Fellows will have the free use of the Library, the News Room and Reference Department connected therewith, the Map Room, Reading Rooms, Writing Room, and Conference Rooms, and shall be entitled to introduce one visitor on any day to these rooms. The Conference Rooms will include Special Rooms for the Australasian, the North American, and the African Colonies, for India, and for the Crown Colonies. Facilities will be afforded to Fellows at moderate charges for holding business Conferences at the Institute, involving the exclusive occupation of a room for specified periods, with or without clerical assistance.

Fellows will be entitled to admission to special conferences, addresses, discussions, or lectures under regulations to be determined upon by the Council, and will have the privilege of introducing visitors in conformity with those regulations.

The Commercial Intelligence or Information Department will be open to Fellows between the hours of 10 A.M. and 1 P.M. and 2 P.M. and 4 P.M. on Mondays to Fridays inclusive, and between 10 A.M. and noon on Saturdays.

Facilities will be afforded to Fellows to inspect or to specially examine, or to be supplied with, samples of materials and products included in the Collections, under regulations and conditions to be determined by the Council, and, if necessary, upon payment of such fees as will compensate the Institute for any loss or special outlay connected with such inspection, for which special localities and appliances will be provided.

## II.—AS TO PROPOSAL AND ELECTION OF FELLOWS.

### (Abstract of Regulations.)

A candidate for admission as an Ordinary Fellow must be proposed and seconded by two Fellows from personal knowledge; such proposal, which shall specify the rank, profession or occupation, and place of abode of the Candidate, must in addition be signed by two Fellows at least.

The certificate of proposal thus filled up, as soon as it has been delivered to the Secretary, shall be exhibited in a conspicuous place in one or other of the public rooms of the Institute for at least one week previous to the date of election.

Candidates proposed as Fellows shall from time to time be submitted for election at a meeting of the Executive Council in accordance with the prescribed regulations.

## III.—AS TO SUBSCRIPTIONS TO BE PAID BY FELLOWS.

### (Abstract of Regulations.)

The annual subscription to the Institute shall, subject to the provisions contained in the Regulations next following, be *Two Pounds*. From and after such date, as may be appointed by the Executive Council, an Entrance Fee may be imposed.

Any Fellow who intends to be absent from the United Kingdom during the whole time for which the annual subscription is payable shall, on his giving due notice in writing to the Secretary of such intention, pay an annual subscription of *One Pound* only during the continuance of such absence. If such Fellow returns to the United Kingdom, he may, on communicating the fact in writing to the Secretary, and on paying such sum as may be required to make up his subscription for the current year to the full amount of *Two Pounds*, be re-admitted to all the privileges of the Institute.

Any fellow who at the time of his election is resident out of the United Kingdom shall pay an annual subscription of *One Pound* only during the continuance of such residence. If such Fellow comes to the United Kingdom, he may, on communicating the fact in writing to the Secretary, avail himself, for a period not exceeding three months from the date of his arrival, of all the privileges of the Institute. If he resides within the United Kingdom beyond that period, he will be required to make up his subscription for the current year to the full amount of *Two Pounds*.

A newly-elected Fellow shall not be entitled to exercise any of the privileges of a Fellow until he has paid his first year's subscription, or entrance fee and first year's subscription, as the case may be, or as compounded as hereinafter provided.

All subscriptions, after the subscription due at election, shall be payable on the 1st January in each year.

When a candidate becomes a Fellow late in the year, the Executive Council may remit the whole or such part as they may think just of his subscription for the current year.

Any Fellow may compound for his subscription and become a Life Fellow, either as his entrance by the payment of *Twenty Pounds*, or after the payment of five or more annual subscriptions by the payment of *Fifteen Pounds*.

*Note*—In conformity with clause 37 of the Constitution approved by Royal Warrant, the Executive Council may from time to time repeal, alter, or add to these Rules respecting the subscriptions and privileges of Fellows.



MAINTENANCE OF THE RECORD OF RIGHTS IN BIHAR.

*The 10th November 1893.*—The following papers are published for general information.

M. FINUCANE,  
Offg. Secy. to the Govt. of Bengal.

No. <sup>2619</sup><sub>174</sub>, dated Simla, the 21st October 1893.

From—The Secy. to the Govt. of India, Revenue and Agricultural Dept.,  
To—The Secretary to the Government of Bengal, Revenue Dept.

WITH reference to the telegraphic communication between the Government of India and Sir A. MacDonnell, ending with my telegram No. 2574, dated 18th instant, regarding the publication of His Honour's second Minute on the Bihar Survey and of the draft Bill and Rules which accompanied it, I am instructed to communicate the following remarks and explanations.

2. In the first place I am to convey to His Honour the thanks of His Excellency the Governor-General in Council for having drawn up so able and masterly a review of the situation and at the same time so convincing an exposition of the administrative necessity of maintaining, on behalf of the raiyats of Bihar, an accurate record-of-rights.

3. In view of the standing orders forbidding the publication of papers referring to memorials addressed to Her Majesty's Secretary of State in anticipation of final orders except for exigent reasons, His Excellency in Council had some hesitation in acceding to His Honour's request that the Minute should appear in the Local Gazette. In the precedent case quoted in Sir A. MacDonnell's telegram of the 17th instant, the permission of the Secretary of State had been previously obtained. In consideration, however, *firstly* of the fact that the memorial itself was practically a mere repetition of objections already publicly brought forward and discussed in connection with the Muzaffarpur Conference, and *secondly* of the importance of placing before the public at the earliest possible date a clear exposition of the issues involved with the object of checking misdirected agitation, His Excellency in Council has consented, as intimated in my telegrams of 16th and 18th instant, to the publication of the entire Minute together with the draft Bill and Rules.

4. To the general principles of the draft Bill the Government of India are able to give a provisional assent, but they must make the reservation as explained in my telegram of the 18th, that the details shall still be regarded as open to discussion. The exact method in which the cost of the initial survey and record-of-rights should be recovered, and which is dealt with in the 12th section of the Bill, is specially a question which His Excellency in Council would desire to bring under careful and independent consideration. To the policy of meeting the cost of maintaining the map and record-of-rights by a cess the Government of India have already agreed, but I am to suggest that the estimate of the actual expenditure which will be involved is not yet sufficiently precise to justify a definite conclusion that a cess of one quarter of an anna in the rupee of annual value will suffice to cover the entire cost. It would in these circumstances seem desirable to append a note to section 7 of the Bill to the effect that "so far as enquiries have gone, it is anticipated that this rate need not be exceeded," with a view of making it quite clear that the Government is not absolutely restricted to this rate.

5. The Government of India feel themselves at some disadvantage in dealing with the draft rules. Although the policy of maintaining an accurate record of rights is one which they have in recent years urged strongly upon all Local Governments and Administrations, they have not at their command the advice of any officials who have had personal experience in the working of the system; nor, even if it were otherwise, would they feel justified in offering any conclusive criticism upon a subject which required for its proper handling, not

only experience of the limits within which an accurate record and map can be successfully maintained in practice, but also an intimate knowledge of local conditions. His Excellency in Council is aware that the rules have been drafted after the most careful consideration by those officials in Bengal who are best acquainted with the circumstances of Bihar, but he considers that, in launching a system which will largely affect the financial interests and the local prejudices of the land-holding and agricultural community, no pains should be spared to take advantage of the experience which has been gained in other provinces before finally deciding upon the methods to be adopted. His Excellency is the more inclined to advise this course in view of his belief that the practices gradually developed in various Provinces are already tending to become inconveniently divergent, and that in some directions mistakes have been made which require early correction. In view of the importance of checking *in limine* any tendency to erroneous practice or to unnecessary expenditure in connection with the maintenance of the map and record of rights in all Provinces, His Excellency the Governor-General in Council desires to take the present opportunity to have this important subject examined by the light of the best experience that can be brought to bear upon it, and has come to the conclusion that a general conference should, after such communication with Local Governments and Administrations as may be necessary, be convened for this purpose. He appreciates the fact that there must be material difference between any system adopted in Bihar and that which prevails in Provinces where the patwari establishments are utilized, but is convinced nevertheless that there are many details of method in connection with which uniformity of practice may be usefully established and that the discussion of these matters by experts will lead to useful results, not only in connection with the Bihar programme, but also in respect to the improvement of system in other Provinces. He desires, however, before addressing other Local Governments, that His Honour's concurrence in this proposal should be invited. The Provinces which would be invited to send representatives would probably be the North-Western Provinces and Oudh, the Punjab and the Central Provinces.

6. The proposition put forward in the 70th paragraph of Sir A. MacDonnell's Minute meets with the full concurrence of the Government of India. The map and record of rights must be maintained up to date, and the Government cannot be fettered by any restrictions which will preclude the accomplishment of this object. The utmost that can be promised is that the maintenance of the record shall be effected at the minimum cost and with the least amount of inspection compatible with the end in view. The Government of India are not prepared to pronounce an opinion how far the rules as now drafted will secure the minimum of expenditure and inspection which may be possible, but they apprehend that this is the very question upon which the discussions by a conference of experts will lead to a satisfactory conclusion. In any case, His Excellency in Council is, as at present advised, disposed to agree with His Honour that no longer period than three years should be permitted to pass without revising the record.

No. 1365T.—R., dated Darjeeling, the 28th October 1893.

From—M. FINUCANE, Esq., Offg. Secy. to the Govt. of Bengal, Revenue Dept.,  
To—The Secretary to the Government of India, Revenue and Agricultural Dept.

I AM directed to acknowledge the receipt of your letter No. <sup>2619</sup>/<sub>174</sub>, dated the 21st October 1893, and to convey to the Government of India the Officiating Lieutenant-Governor's thanks for the reception accorded to the proposals in connexion with the Bihar Cadastral Survey made in my letter No. 1130T.R., dated the 21st September last, and its enclosures.

2. His Honour cordially accepts the proposal made in the 5th paragraph of your letter under reply that a general Conference of expert officers should be convened to consider the question of the best and most economical way of maintaining the record of rights in Bihar and generally in other provinces where such records are maintained. Sir Antony MacDonnell would beg leave to suggest that the Zamindari and Indigo-planters' Associations, who are interested in the question, might be invited to depute representatives to attend the Conference and help it with their criticisms and advice.

No. 2714  
174, dated Simla, the 3rd November 1893.

From—The Secretary to the Government of India, Revenue and Agricultural Dept.,  
To—The Secretary to the Government of Bengal, Revenue Department.

I AM directed to acknowledge the receipt of your letter No. 1365T.—R., dated the 28th October 1893, in which you convey Sir Antony MacDonnell's assent to the proposal made in paragraph 3 of my letter No. 2319  
174, of the 21st October 1893, that a general Conference of expert officers should be convened to consider the question of the best and most economical way of maintaining the record of rights in Bihar. It will be convenient that the Conference should be held at Calcutta at as early a date as may be compatible with the convenience of the Local Governments who will be invited to depute delegates.

2. There will be no objection to the Zamindari and Indigo-planters' Associations being invited to depute representatives to the formal meetings of the Conference, but it will be desirable that preliminary or informal meetings should first be held for the purpose of framing issues for discussion.

### WORKS OF PUBLIC UTILITY CONSTRUCTED DURING THE YEAR 1892 FROM PRIVATE CONTRIBUTIONS.

No. 6357M.P.L.

GOVERNMENT OF BENGAL—PUBLIC WORKS DEPARTMENT.

Mis. Pub. Improvements.

Dated Calcutta, the 14th November 1893.

#### RESOLUTION.

READ—

Statement of works of public utility constructed by private individuals in the several districts of Bengal during the year 1892, and the corresponding statement for 1891, with the Resolution thereon.

*Remarks.*—The cost of this particular class of works during 1892 stands at Rs. 4,41,407-1-9, of which the following is a distribution :—

				Number of works.	Cost.		
					Rs.	A.	P.
Public buildings	...	...	...	9	13,391	12	3
Roads	...	...	...	6	5,400	0	0
Bridges	...	...	...	6	9,800	0	0
Embankments or bunds	...	...	...	4	1,286	8	0
Ghâts	...	...	...	6	28,300	0	0
Tanks	...	...	...	467	3,11,163	12	0
Wells	...	...	...	89	24,963	5	6
Irrigation channels	...	...	...	3	1,118	10	0
Petty works costing below Rs. 200 each	...	...	...	...	42,983	2	0
Total				590	4,41,407	1	9

2. These operations are as usual divided into three classes, thus—

I.—Petty works under Rs. 200 each.

II.—Works costing Rs. 200 to Rs. 500 each.

III.—Works whose cost exceeds Rs. 500 each.

and the works carried out in 1892 under these three classes as compared with the two previous years, are detailed in the following statement which shows that the operations of 1892 exceed those of 1891 by Rs. 1,76,922-1-6 and those of 1890 by Rs. 1,05,263-1-9 :—

CLASS OF WORK.	1892.			1891.			1890.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
I.—Cost of petty works under Rs. 200 each	42,983	2	0	35,448	0	0	34,729	0	0
II.—Total expenditure of works costing from Rs. 200 to Rs. 500 each	1,24,584	3	6	60,072	0	3	61,822	0	0
III.—Total expenditure of works whose cost exceeds Rs. 500 each	2,73,839	12	3	1,68,965	0	0	2,39,593	0	0

3. The works comprising classes II and III are further distributed thus by districts:—

District.	No. of works.	Total cost.		
		Rs.	A.	P.
Burdwan	16	6,900	0	0
Bankura	2	3,656	0	0
Birbhum	12	7,650	0	0
Midnapore	20	12,940	0	0
Hooghly	4	8,500	0	0
Howrah	2	13,000	0	0
24-Parganas	4	13,500	0	0
Khulna	2	800	0	0
Nadia	15	11,341	0	0
Jessore	5	3,551	0	0
Murshidabad	3	2,200	0	0
Dinajpur	20	10,850	0	0
Rajshahi	91	58,410	0	0
Rangpur	8	7,720	0	0
Bogra	12	9,708	0	0
Pabna	7	4,450	0	0
Darjeeling	Nil.	Nil.		
Jalpaiguri	4	5,050	0	0
Dacca	1	339	4	0
Faridpur	8	2,975	0	0
Backergunge	3	1,482	0	0
Mymensingh	27	17,132	0	0
Tippera	11	6,150	0	0
Noakhali	4	1,600	0	0
Chittagong	3	1,100	0	0
Chittagong Hill Tracts	Nil.	Nil.		
Patna	Nil.	Nil.		
Gaya	7	2,336	3	9
Shahabad	10	3,437	0	0
Darbhanga	63	54,881	0	0
Muzaffarpur	23	16,521	0	0
Saran	4	2,200	0	0
Champaran	12	10,455	0	0
Monghyr	59	19,662	0	0
Bhagalpur	77	43,685	0	0
Purnea	7	2,350	0	0
Mulda	5	3,900	0	0
Sonthal Parganas	6	3,965	0	0
Cuttack	7	4,398	8	0
Balasore	17	8,654	0	0
Puri	1	1,050	0	0
Hazaribagh	2	6,975	0	0
Lohardaga	Nil.	Nil.		
Manblum (the works carried out in this district were petty)	...	...	...	...
Singbhum	5	2,700	0	0
Palamau	1	250	0	0
Total	0	3,98,423	15	9

4. Of the above the following may be specially noticed:—

*Public buildings.*—Under this head the contributions amount to Rs. 13,391-12-3, of which Rs. 6,675 represents the amount given for a hospital building at Giridih by several residents in the Hazaribagh district, the principal donors being Babu Sarada Narain Singh, who contributed Rs. 2,000, Babu Torul Narain Singh, Rs. 1,500, Babu Paresh Nath Singh, Rs. 500, and the Dhunwar Court of Ward's Estate Rs. 500; Raja Sir Soorendra Mohan Tagore, K.C.S.I., contributed Rs. 2,500 for a Zenana Hospital in the Bankura town, which was constructed at a total cost of about Rs. 4,600; Mr. Smith, Agent, Garulia Jute Mills, gave Rs. 1,200 for a school at Garulia in the Barasat subdivision; Suraj Mohini Dasi Rs. 900 for a charitable dispensary in the Navadwip town, Nadia district; Fazal Haque Rs. 500 for a mosque at Jangirpur, in the Nadia district; Babu Shama Charan Banerjee Rs. 500 for a school at Borda Normal Bazar, thana Ghatal, in the Midnapore district.

*Roads.*—The contributions under this head, which stand at Rs. 5,400, represent the gifts of the following gentlemen:—

- (1) Rupees 2,000 from Bariz Mamood, for a road from Dugdugi to Bhawaniganj, in the Rangpur district.
- (2) Rupees 1,300 from the Maharajah of Kuch Bihar, for a road from Patgram to Bhutan.
- (3) Rupees 1,100 from Gagan Ghosh, for a road from Gobarchapa to Mithapur, Bogra district.
- (4) Rupees 400 from Babu Biswambhar Sasnal, for metalling a portion of the kutchra road at Atilagori, Midnapore district.
- (5) Rupees 200 from Tagar Mamood Kaji, for a road from Sangalsi to Darwani, in the Rangpur district.
- (6) Rupees 200 from Babu Khargidar Ahir, for a road at Bairwa, Champaran district.
- (7) Rupees 200 from Braja Mohun Harichandan Roy, for a kutchra road at Sadanandpur in the Balasore district.

*Bridges.*—A sum of Rs. 9,800 was contributed. Junavi Chaudhurani gave Rs. 4,000 for a bridge over the Gaziabari khal in the Mymensingh district; the Maharaja of Kuch Bihar Rs. 3,000 for reconstructing the bridge over the Dhabalsooty river, and for manufacturing bricks for bridges, &c., in Patgram, Jalpaiguri district; Mr. M. H. Mackenzie gave Rs. 1,000 for a bridge at Deoria in the Muzaffarpur district; Babu Ram Charitra Lal Rs. 1,000 for a bridge at Sadharutti in the Muzaffarpur district; Maulvi Sajad Ali Jolaha Rs. 500 for a bridge at Saidpur.

*Embankments or bunds.*—Rupees 1,286-8 were contributed under this head the largest being Rs. 486-8 given by Mr. E. Solano for an embankment at Kinjar-Mirjapur, in the Gaya district, and Rs. 400 given by Badhai Gope for an embankment 400 feet long at Satghoria in the Monghyr district.

*Ghâts.*—The contributions towards ghâts amount to Rs. 28,300, which is made up as follows:—

	Rs.
(1) From Babu Kedar Nath Mukerjee } For masonry ghâts on the {	7,000
(2) „ Tarini Charan Chandal ... } river bank at Bally ... }	6,000
(3) „ Sreemati Monmohini Dasi of Naihati for a masonry ghât on the river bank at Naihati ...	9,000
(4) „ Babu Badhe Bhusan Banerjee for a ghât on the river bank at Badhrakhali, in the Hooghly district ...	3,000
(5) „ Pundit Rakhal Das Nayaratra of Naihati for a masonry ghât on the river bank at Bhadpara, in the Barasat subdivision ...	2,500
(6) „ Mr. Smith, Agent, Garulia Jute Mills, for a masonry ghât on the river bank at Garulia, in the Barasat subdivision ...	800

*Tanks.*—The total contributions for tanks amount to the large sum of Rs. 3,14,163-12-0 of which the following may be classed as the more important, viz.:—Babu Harhungi Misser, Champaran district, Rs. 5,000; the wife of Chamroo Roniar, Muzaffarpur district, Rs. 5,000; Kama Sheik, Hooghly district, Rs. 4,000; Raja Baikuntha Nath De Bahadur, Balasore district, Rs. 3,764; Babu Shama Charan Banerjee, Midnapore district, Rs. 3,300; Babu Bhuban Mohan Kundu, Nadia district, Rs. 2,500; Babu Ram Nath Pramanik, Rajshahi district, Rs. 2,000; Ashan Akandoo, Rajshahi district, Rs. 2,000; Ramdhan Mandal, Rangpur district, Rs. 2,000; Krishna Kanta Sarkar, Rangpur district, Rs. 2,000; Mussamut Girji Koomar, Darbhanga district, Rs. 2,000; Babu Juddhar Thakur, Darbhanga district, Rs. 2,035; Babu Anroop Ojha, Champaran district, Rs. 2,000; Babu Lachmi Prasad, Monghyr district, Rs. 2,000; Pooran Singh, Bhagalpur district, Rs. 2,000; Dasruth Bhagat, Bhagalpur district, Rs. 2,000; Rajib Lochan Mandal, Sonthal Parganas district, Rs. 2,915; Jannemenjoy Nand, Cuttack district, Rs. 2,000.

*Wells.*—The contributions for wells, which stand at Rs. 24,963-5-6, are made up mostly of small amounts.

*Irrigation channels.*—Rupees 1,118-10 were contributed, of which Rs. 600 were given by the villagers in the Tippera district, and Rs. 518-10 by Mr. E. Solano, Gaya district.

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RESOLUTION.—There has been a very marked improvement during 1892 as compared with the two previous years in the contributions from private sources in aid of works of public utility, which is most gratifying, and to those who have displayed their liberality and public spirit in this matter His Honour the Lieutenant-Governor tenders his acknowledgments, and in doing so His Honour desires to express a hope that the good example set by them will be followed by others who can afford to contribute towards works of usefulness for the benefit of the poorer classes.

Formal letters of acknowledgment from Government will be forwarded to those who have constructed works costing over Rs. 500. The rest will receive the usual acknowledgment from the Commissioner or the Magistrate of the Division.

ORDER.—Ordered that a copy of this Resolution, and of the statement, be forwarded to the Board of Revenue, Lower Provinces, and to all Commissioners of Divisions ; to the Commissioner of Chota Nagpur, and to all Superintending Engineers of Public Works Circles in Bengal, for information.

Ordered also that a copy of this Resolution, and of the statement, be forwarded to the Revenue and Judicial Departments of this Government for information.

Ordered also that this Resolution and the statement be published in the Supplement to the *Calcutta Gazette* for general information.

By order of the Lieutenant-Governor of Bengal,

F. J. JOHNSTONE,

*Secretary to the Government of Bengal.*

*Statement of works of public utility constructed by private individuals during the year 1892.*

DIVISION.	District.	Name of individual by whom constructed.	Description of work.	Place where constructed.	Cost.	Total of district.	Grand total of Division.
BURD- WAN.	Burdwan	Babu Hari Nath Das Muchi	Excavation of a tank	Nowpara, thana Purbas- thali.	Rs. A. P. 500 0 0	Rs. A. P. 7,050 0 0	Rs. A. P.
		" Madhab Shaha	Ditto	Digra, thana Rayna	300 0 0		
		" Prasanna Khan	Ditto	Dhama, ditto	400 0 0		
		" Kolas Chandra Mukherjee	Ditto	Jagatpur, ditto	500 0 0		
		" Sitaram Bank	Ditto	Kuara, ditto	450 0 0		
		" Sanoda Prasad Mukherjee	Ditto	Banamalipur, ditto	200 0 0		
		Asgar Shaik	Ditto	Kumarhati, ditto	500 0 0		
		Babu Tinkari Sarkar	Re-excavation of a tank.	Kona Krishnapur, thana Rayna.	800 0 0		
		" Ram Narayan De	Ditto	Sipta, thana Rayna	300 0 0		
		Abdul Rahmau	Ditto	Dakshin Mohanpur, thana Rayna.	1,000 0 0		
		Babu Behari Dutt	Ditto	Narugram, thana Rayna	250 0 0		
		" Pann Chandra De	Ditto	Uchian, ditto	500 0 0		
		" Hem Chandra Mukherjee	Ditto	Ditto, ditto	500 0 0		
		" Nodun Chandra De	Ditto	Ditto, ditto	450 0 0		
		" Mukham Lal Basu	Ditto	Buyadighi, ditto	500 0 0		
		" Mongal Chandra Ghose	Ditto	Rayna, ditto	250 0 0		
		Works costing less than Rs. 200 each.		.....	150 0 0		
	Bankura	Raja Sir Sourendra Mohan Tagore, K.C.S.I., of Calcutta.	Construction of a zemana Hospital.	Bankura town	2,500 0 0*	3,656 0 0	
		Babu Lakshmi Narayan Singh	Excavation of a tank	Rampur, thana Sonamukhi	1,156 0 0		
	Birbhum	Babu Madan Dai	Excavation of a tank	Singli, thana Shakhullipur	300 0 0	7,750 0 0	
		" Behari Lal Dai	Ditto	Batina, ditto	500 0 0		
		" Dukhaharan Ghose	Ditto	Nahora, outpost Illam- bazar.	1,000 0 0		
		" Ram Lal Roy	Ditto	Sarsa, thana Labpur	500 0 0		
		" Raghu Nath Mandal	Ditto	Khatipur, ditto	650 0 0		
		" Radha Nath Setvan	Ditto	Mrityanjyapur, thana Ram- pur list.	300 0 0		
		" Behari Mandal and Ram Chandra Mandal.	Ditto	Kasogram, thana Rampur Hat.	500 0 0		
		" Banka Shaha	Ditto	Hatpurkata, outpost Dani- gram.	500 0 0		
		Anna Kali Devi	Ditto	Kumar Sanda	1,500 0 0		
		Babu Ram Lal Mandal	Ditto	Rampur	800 0 0		
	Hooghly	" Maibho Suchan Mandal	Ditto	Do.	800 0 0	8,500 0 0	
		" Ram Kumar Ghose	Re-excavation of a tank.	Nahora, outpost Illam- bazar.	300 0 0		
		Works costing less than Rs. 200 each.		.....	100 0 0		
		Babu Hari Churn Banerjee	Ditto	Polba, thana Polba	500 0 0		
		" Bhogobatty Churn Kundu	Ditto	Ditto, ditto	1,000 0 0		
	Howrah	" Bidhu Bhusan Banerjee	Construction of a ghat on the river Hooghly.	Bhadrakali, thana Siram- pore.	3,000 0 0	13,000 0 0	
		Kanu Shaik	Excavation of a tank	Chitrasali, thana Khanakul	4,000 0 0		
	Midnapore	Babu Kedar Nath Mukerjee	Construction of a masonry ghat.	On the bank of the river Ganges at Bally.	7,000 0 0	39,956 0 0	
		" Tarini Charan Chandal	Ditto	Ditto ditto	6,000 0 0		
		Babu Jogendra Nath Mallick	Excavation of a tank	Moonshipatna, thana Mid- napore.	800 0 0		
		" Durga Prasad Barom	Ditto	On the side of the Trunk Road at Buramula, thana Midnapore.	700 0 0		
		" Adwaita Sen	Ditto	On the side of a public road at Noyagram, thana Midnapore.	500 0 0		
		" Ishan Chandra Singh	Ditto	Sirsa, thana Keshpur	200 0 0		
		" Binauda Mokurh	Ditto	Khorikamathori, outpost Noyagram, thana Gopi- bululpore.	800 0 0		
		" Shub Charan Shaw	Re-excavation of a tank.	Gopalilanga, outpost Sat- pati, thana Salboni.	400 0 0		
		" Rajkumar Dhowrah	Excavation of a tank	By the side of the Trunk Road at Pocktapole, thana Narainpurh.	500 0 0		
		" Ram Chand Marwari	Ditto	By the side of the Trunk Road at Bakhrabej, thana Narainpurh.	700 0 0		
		Carried over			3,000 0 0		

\* The hospital was constructed at a cost of about Rs. 4,000 of which Rs. 2,500 have been paid by the Raja.

DIVISION.	District.	Name of individual by whom constructed.	Description of work.	Place where constructed.	Cost.	Total of district.	Grand total of Division.
					Rs. A. P.	Rs. A. P.	Rs. A. P.
				Brought forward ...	3,960 0 0	39,956 0 0	
BURDWAN —concl'd.	Midnapore— concl'd.	Babu Biswambhar Saemal ...	Metalling a portion of the Kutchia road, and making a culvert thereon.	At Atilagori, thana Contai	400 0 0		
		" Krishna Mohan Samanta ...	Excavation of a tank	Dekhali, thana Khodgeree	400 0 0		
		" Anandaram Shawoo ...	Ditto	Motirampur, thana Pottas-pore.	300 0 0		
		" Ditto ...	Ditto	Toopchibar, thana Pottas-pore.	200 0 0		
		" Bainoo Shawoo ...	Ditto	Bachpani Parool, thana Egta.	240 0 0		
		Niamuddi Hazi ...	Ditto	By the side of the Tamruk Road, in village Champadali, thana Panskardah.	200 0 0		
		Babu Rama Nath Dutt ...	Ditto	Ajodhya, thana Chandra-kona.	1,200 0 0		
		" Rama Nath Dogra ...	Ditto	Gopdour, thana Chandra-kona.	800 0 0		
		" Gopal Hatti ...	Ditto	Chandrapur, thana Chandra-kona.	500 0 0		
		" Girish Chandra Pahari ...	Ditto	Khopari, outpost Khimpur, thana Chandiakona.	1,000 0 0		
		" Shama Charan Banerjee ...	Ditto	Barda Serai Bazar, thana Ghatol	3,700 0 0		
		" Ditto ...	Construction of a school building.	Ditto	500 0 0		
		Works costing less than Rs. 200 each.			680 0 0		
						13,620 0 0	53,676 0 0
	24-Parganas ...	Sreenati Mommohini Das of Nachati in the Barasat sub-division.	A masonry ghât in the river Hooghly.	Naihati in the subdivision Barasat.	9,000 0 0*		
		Pundit Bakhal Das Nayarajna of Naihati in the Barasat sub-division.	Ditto	Bhatpara in the subdivision Barasat.	2,500 0 0		
		Mr. Smith, Agent, Garulia Jute Mills in the subdivision Barrack-pore.	Ditto	Garulia in the subdivision Barasat.	800 0 0		
		Ditto, ditto ...	Construction of a school building.	Ditto	1,200 0 0		
						13,500 0 0	
	Nadia	Fazel Haque ...	Packa mosque	Janzirpur ...	500 0 0		
		Suroj Mohini Das ...	Charitable Dispensary.	Nuvadoip town ...	200 0 0		
		Tustu Mondul ...	Tank	Kalinagar ...	700 0 0		
		Bhuben Mohan Kundu ...	Do.	Bota Balindanra ...	2,500 0 0		
		Udal Biswas ...	Do.	Bo ripota ...	800 0 0		
		Mr. Sandel ...	Do.	Bh borpara ...	1,000 0 0		
		Ahmed Ali Gayen ...	Do.	Dhyan chaki ...	300 0 0		
		Bhuben Biswas ...	Do.	Jogigopa ...	300 0 0		
		Hari Chandra Maju ...	Do.	Saupdoho ...	500 0 0		
		Mr. B. Pal Chowdhari ...	Excavation of a masonry well.	Lotudoho ...	450 0 0		
		Sabu Gindra Narain Chatterji ...	Tank	Champatolla ...	1,700 0 0		
		" Kussick Pal and others ...	Re-excavation of a tank.	Ghoshpara ...	400 0 0		
		" Hirulal Biswas ...	Ditto	Boripota ...	500 0 0		
		Izudin Biswas ...	Ditto	Karagacin ...	300 0 0		
		Megun Biswas ...	Tank	Nannagar ...	600 0 0		
		Works costing less than Rs. 200 each.			250 0 0		
						11,591 0 0	
PRESI- DENCY.	Jessore ...	Krishna Chunder Kormokar ...	Tank	Shankur, police-station Manirampur.	300 0 0		
		Meher Ghazi Chowkidar ...	Do.	Monoharpur, police station Manirampur.	251 0 0		
		Nishant Dasra ...	Do.	Dantiya in Saikopa thana	1,700 0 0		
		Hari Charan Chaki ...	Do.	Bain in ditto	600 0 0		
		Ram Mohan Roy ...	Do.	Dhenetala in Jhenidah thana.	700 0 0		
						3,551 0 0	
	Khulna ...	Jamir Molla ...	Tank	Hajigram in Khulna thana	300 0 0		
		Debaran Mandal ...	Do.	Gauapati in ditto	500 0 0		
		Works costing less than Rs. 200 each.			200 0 0		
						1,000 0 0	
	Murshidabad...	Khudu Mollah ...	Tank	Bokhara in thana Sagur-dighi.	1,000 0 0		
		Rodhica Lal Roy ...	Well	Sujanpara in thana Sati ..	200 0 0		
		Nityanand Das ...	Tank	Fardpur in ditto ..	1,000 0 0		
						2,200 0 0	31,842 0 0

\* Certified by the Subdivisional Officer.



DIVISION.	District.	Name of individual by whom constructed.	Description of work.	Place where constructed.	Cost.	Total of district.	Grand total of Division.
					Rs. A. P.	Rs. A. P.	
RAJSHAH.	Dineajpur	Madan Chandra Kabiraj of Mitra-bati, police-station Kotowali.	Tank	Mitratati	300 0 0		
		Jominuddin Chaudhari of Ghugudanga, police-station Kotowali.	Do.	Ghugudanga	800 0 0		
		Katinulla Sarkar of Kherkati, outpost Chitabunder, police-station Kotowali.	Do.	Kherkati	260 0 0		
		Shaher Mahmud of Shonnizaon, outpost Birol, police-station Kotowali.	Do.	Shonnigaon	500 0 0		
		Shebrute Kaporia of Korolla, outpost Birol.	Do.	Korolla	350 0 0		
		Thakur Das of Rajarampur, outpost Birol.	Do.	Rajarampur	300 0 0		
		Golak Mandal of Rampur, outpost Birol.	Do.	Rampur	400 0 0		
		Khair Mandal, police-station Patiram.	Do.	Shoharpur	500 0 0		
		Bakshi Mandal, police-station Patiram.	Do.	Debgam	600 0 0		
		Matra Mandal, police-station Patiram.	Do.	Chakgopal	500 0 0		
		Birol Mandal, police-station Mohadebpur.	Do.	Potaypur	600 0 0		
		Faju Sarda, police-station Mohadebpur.	Do.	Barakabla	300 0 0		
		Bona Mandal, police-station Mohadebpur.	Do.	Sora	700 0 0		
		Chakou Mandal, police-station Mohadebpur.	Do.	Do.	500 0 0		
		Sau nuddin Sarkar, police-station Mohadebpur.	Do.	Jounpur	400 0 0		
		Sreenath Sunyal, police-station Mohadebpur.	Do.	Bhokanpur	1,100 0 0		
		Alaknath Dasya, police-station Mohadebpur.	Do.	Nayanpur	1,000 0 0		
		Sadar Mandal, police-station Mohadebpur.	Do.	Chotakabla	550 0 0		
		Jamrudin Sarda of Jamoir, police-station Bangshari.	Do.	Jamoir	500 0 0		
		Gonsari Mandal of Jalpukhoris, police-station Bangshari.	Do.	Jalpukhoris	300 0 0		
		One work costing less than Rs. 100.			150 0 0		
						11,000 0 0	
	Rajshahi	Moushad Mollah	Tank	Pallya	400 0 0		
		Hari Pramanik	Do.	Sadipur	250 0 0		
		Sheraj Mandal	Do.	Chak Janna	600 0 0		
		Joylal Mandal	Do.	Agla	100 0 0		
		Hari Charan Paul	Do.	Gatya	500 0 0		
		San Dhan Haidar	Do.	Hurag	800 0 0		
		Eshak Maulvi	Do.	Zamra	200 0 0		
		Jumna Mollah	Do.	Kandora	800 0 0		
		Sreenath Sarkar	Do.	Kastabari	400 0 0		
		Jumna Hazi	Do.	Zamra	350 0 0		
		Shabanulla Chankidar	Do.	Agla	250 0 0		
		Shosi Bhusha Matra	Do.	Pannagore	700 0 0		
		Kajani Kant Matra	Do.				
		Andi Mandal	Do.	Kalopara	300 0 0		
		Chandoni Bawa	Do.	Kandara	70 0 0		
		Bened Mandal	Do.	Jalhar	400 0 0		
		Dinso Mandal	Do.	Kanarpur	600 0 0		
		Panchoo Mandal	Do.	Ataha	500 0 0		
		Ram Sarkar Sarkar	Do.	Silgor	800 0 0		
		Rasik Pramanik	Tank excavation	Gargora	700 0 0		
		Bened Mandal	Do.	Chakra	500 0 0		
		Nanda Kumar Sarkar	Tank	Mandal	800 0 0		
		Fah Das Lohar	Tank excavation	Nankole	500 0 0		
		Haroo Sarda	Tank	Hanukula	100 0 0		
		Pandab Pramanik	Tank excavation	Udpara	200 0 0		
		Bhola Shukh	Tank	Kala Beray	800 0 0		
		Chand Sarda	Do.	Chandpur	500 0 0		
		Shoolu Pramanik	Tank excavation	Gaukandi	400 0 0		
		Tazoo Pramanik	Tank	Nalpara	500 0 0		
		Nedal Pramanik	Do.	Chaghora	500 0 0		
		Momin Mandal	Do.	Basodepur	700 0 0		
		Moharance Shannomoyee	Do.	Daulatpur	600 0 0		
		Chang Sarda	Tank excavation	Chandrapur	250 0 0		
		Ramdhani Kamar	Tank	Balsla	500 0 0		
		Balaran Sarda	Do.	Dhorail	100 0 0		
		Parbati Sarkar	Do.	Dito	600 0 0		
		Charan Moidi	Do.	Nayanpur	500 0 0		
		Moharance Shannomoyee	Do.	Konegram	250 0 0		
		Dito		Do.	Kathalgam	500 0 0	
		Ashmit Sarkar		Do.	Ghatkanchan	50 0 0	
		Mohaboo Shukh		Do.	Gachha	500 0 0	
		Sharatulla Sarkar		Do.	Dito	700 0 0	
		Azga Sarda		Do.	Dito	300 0 0	
		Gonbulla Shukh		Do.	Dito	350 0 0	
				Carried over	23,025 0 0		

Division.	District.	Name of individual by whom constructed.	Description of work.	Place where constructed.	Cost.	Total of district.	Grand total of Division.
					Rs. A. P.	Rs. A. P.	
		Brought forward	.....	.....	23,025 0 0	11,000 0 0	
		Kelytoo Sonar	Tank	Moondoomala	815 0 0		
		Hachyan Mandal	Do.	Tatilpara	800 0 0		
		Jadab Majhi	Do.	Bhabanipur	100 0 0		
		Rontaran Sarkar	Do.	Dhanter	1,000 0 0		
		Rajeswar Mandal	Do.	Talookpara	1,000 0 0		
		Arap Chowkidar	Do.	Paranpur	1,000 0 0		
		Kamun Mollah	Do.	Chandorah	700 0 0		
		Shudra Mandal	Do.	Pachandor	1,200 0 0		
		Moharane Shurnomoyee	Tank excavation	Mohadebpur	1,000 0 0		
		Poran Mandal	Ditto	Kail	670 0 0		
		Farang Sonar	Ditto	Bugheria	500 0 0		
		Chuban Sutar	Tank	Chak Baidyanath	300 0 0		
		Madhub Chandra Goswami	Do.	Lochanpur	500 0 0		
		Panoo Shaha	Do.	Durlabapur	700 0 0		
		Birao M. Lah	Do.	Kaiguri	800 0 0		
		Kamun Lal Muebi	Do.	Belchuria	1,000 0 0		
		Shamun Pramanik	Do.	Ranoribhag	500 0 0		
		Jhaguar Mollah	Do.	Mattapara	300 0 0		
		Shona Ullah Sirkar	Do.	Kholabaria	200 0 0		
		Shah M. hamed Munshi	Do.	Lochanpur	300 0 0		
		Durga Nath Talokdar	Do.	Berabatty	800 0 0		
		Ganesh Chandra Matra	Do.	Konaramkuri	600 0 0		
		Gowhandin Ghosh	Do.	Bansibari	600 0 0		
		Kutub Pramanik	Do.	Italy	500 0 0		
		Ramdas Shaha	Do.	Shubkarn	700 0 0		
		Jaber Mulla	Do.	Hoshchaha	200 0 0		
		Chenab Chandra Nandi	Do.	Tazpur	300 0 0		
		Bidhee Pramanik	Do.	Dohad	1,400 0 0		
		Jagan Pramanik	Do.	Iskharpur	300 0 0		
		Manna Motta	Do.	Chowdighi	600 0 0		
		Mokun Shaha	Do.	Bilbana	950 0 0		
		Chokun Mandal	Do.	Chakboreo	600 0 0		
		Ram Nath Pramanik	Do.	Bugachapara	2,000 0 0		
		Asat Pramanik	Do.	Lalpara	1,200 0 0		
		Banshi Sardar	Do.	Kochha	950 0 0		
		Asban Akanda	Do.	Khagra	2,000 0 0		
		Kashi Sardar	Do.	Panail	1,000 0 0		
		Ab Mandal	Do.	Hattor	400 0 0		
		Shoni Pramanik	Do.	Chak Mohanpur	600 0 0		
		Pron Ulla Mandal	Do.	Ganiboree	700 0 0		
		Nabin Shaha	Tank excavation	Shat Kart	400 0 0		
		Mokun Sagar	Ditto	Khola	300 0 0		
		Ditto	Tank	Bhera	500 0 0		
		Moollaka Mandal	Do.	Budhonia	600 0 0		
		Atip Shaha	Do.	Suria Narayanpur	700 0 0		
		Shaku Khun	Do.	Ditto	600 0 0		
		Maharaj Shurnomoyee	Tank excavation	Karimpur	400 0 0		
		Dashu Sagar	Tank	Dashibari	600 0 0		
		6 works costing less than Rs. 200 each.	.....	.....	675 0 0		
						59,685 0 0	
		Abir Pramanik	Tank	Naizirpur, Dulai police-station.	200 0 0		
		Jagut Durlava M. jumdar	Do.	Dibater, Pabna police-station	900 0 0		
		K. N. Mohan Talapatra	Do.	Poonatia, Dulai police-station.	350 0 0		
		Gyanada Sundari Dehya	Do.	Shital, Chatmohar police-station.	900 0 0		
		Gourchand Roy	Do.	Doharia village, Chatmohar police station.	500 0 0		
		Minu Pramanik	Do.	Khircogran, Raiganj out-post.	800 0 0		
		Madhu Akanda	Do.	Desingram, outpost Raiganj	800 0 0		
						4,460 0 0	
		Daimulla Akanda	Tank	Manikchapor, Thana Shierpur	1,000 0 0		
		Madhab Chandra Nait	Do.	Madan, Ditto	950 0 0		
		Raj Kumar Ghosh	Do.	Nowada, thana Panchbibi	250 0 0		
		Sridhar Das	Do.	Bonkhur, ditto	200 0 0		
		Gagan Ghosh	Road	Gobachupa to Mithapur, thana Nawabganj.	1,100 0 0		
		Nasir Pramanik	Tank	Chandipur, thana Adam-dighi.	900 0 0		
		Shorup Pramanik	Do.	Ditto ditto	900 0 0		
		Ram Pramanik	Do.	Ditto ditto	900 0 0		
		Param Bawa	Do.	Jianagar ditto	900 0 0		
		Madhab Chandra Ball	Do.	Manikpara ditto	900 0 0		
		Shodh Pramanik	Do.	Telach, ditto	900 0 0		
		Asmat Pramanik	Do.	Belta, ditto	800 0 0		
						9,708 0 0	
		Carried over	.....	.....		84,243 0 0	

RAJ-  
SHAHI—  
contd.

Pabna

Bogra

No.	District.	Name of individual by whom constructed.	Description of work.	Place where constructed.	Cost.	Total of district.	Grand total of division.
					Rs. A. P.	Rs. A. P.	
		Brought forward	.....	.....	.....	84,243 0 0	.....
	Rangpur	Baqer Mahmood Teh of Padma- jhar, outpost Rangpur, police- station Mahaganj.	A tank	Sukhanupakhar	220 0 0		
		Sa to Chandra Poddar of Dhan- sayap Mahmood of Sankarpur, police-station Badarganj.	A masonry well	Radhabalabhab Badarganj	500 0 0 200 0 0		
		Ranchan Mondal of Bhendabari, police-station Pargana.	Do.	Bhendabari	2,000 0 0		
		Tegar Mahmood Kapt of Chhot- Sangulsi, police-station Nilphamari.	A road	Sangulsi to Duwara	260 0 0		
		Bakiz Mahmood Sarkar of Gope- gram, police-station Nilphamari.	Do.	Dugdugi to Bhanganjanj	2,000 0 0		
		Krishna Kanta Sarkar of Bagula- ga, police-station Nilphamari.	A tank	Bagulagari	2,000 0 0		
		Jhuru Nasya of Santanu, police- station Barabari.	Do.	On the road from Kulaghat to Lalmoni at Saptaha.	0 0 0	7,720 0 0	
	Jalpaiguri	His Highness the Maharaja of Kuch Binar.	Work repairs in fill- ing up embankments, 24th, 25th and 26th miles, and also constructing bridge over Dhahidosty river. Manufacturing bricks for making Pucca bridges just com- menced.	Patgram	3,000 0 0		
			Road from Patgram to Chutan P.d., 4 miles.	Ditto	1,300 0 0		
			Constructing a pucca well at Patgram hat.	Ditto	500 0 0		
			Constructing a Ran- gung rope well at Rangungore.	Rangungore	250 0 0		
		3 works costing less than Rs. 200 each.			200 0 0	5,250 0 0	
	Darjeeling	Nil	Nil	Nil	Nil		97,222 0 0
		CLASS IV (a).					
	Dacca	Rai Abloy Chaman Mitra Baha- dur.	Tank	Rajabari	339 4 0	339 4 0	
		Babu Bandaban Saha	Tank	Chowshora	600 0 0		
		" Har Kumar Kundu	Do.	Bantipora	400 0 0		
		" Panna Chandra Roy	Do.	Kaloran	350 0 0		
		" Jagabandhu Das	Do.	Lazipur	200 0 0		
		" Bishevar Banerjee	Do.	Aungam	400 0 0		
		" Deo Nath Biswas	Do.	Arpara	375 0 0		
		" Gangsa Charan Roy	Do.	Babontola	350 0 0		
		Tipu Miah	Do.	Padamdi	160 0 0	3,135 0 0	
		Works costing less than Rs. 200 each.					
	Backergunge	Basraj Jogi	Tank	Pardkur	280 0 0		
		Ditto	Do.	Pankhuri	600 0 0		
		Krishna Das Baragi.	Do.	Kahshuri	1,000 0 0	1,482 0 0	
		CLASS I (b).					
		Junavi Chaudhuran	Bridge	Gaziabari khal	4,000 0 0		
		CLASS IV (a).					
	Mymensingh	Syamm Sundari Dehya	Tank	Bangla	1,000 0 0		
		Saba Chand	Do.	Radhakona	450 0 0		
		Ali Sheikh	Do.	Parali	400 0 0		
		Bach Sheikh	Do.	Telcow	250 0 0		
		Adul Sarkar	Do.	Tekuria	50 0 0		
		Tudu Chango Sarkar	Do.	Arampur	400 0 0		
		Sheikh P. kor Sarkar	Do.	Arampur	450 0 0		
		K. Le Sheikh	Do.	Arampur	450 0 0		
		Zabin Sheikh	Do.	Arampur	450 0 0		
		Abu Mandal	Do.	Arampur	450 0 0		
		Ganga Chaman Karkal	Do.	Arampur	450 0 0		
		P. Chinn Sheikh	Do.	Arampur	450 0 0		
		Chanda Nath Bakshit	Do.	Arampur	450 0 0		
		Order Mollah	Do.	Arampur	450 0 0		
		Abu Munshi	Do.	Arampur	450 0 0		
		Maria Sheikh	Do.	Arampur	450 0 0		
		Bal Chaman Napit	Do.	Arampur	450 0 0		
		Guru Govinda Saha	Do.	Arampur	450 0 0		
				Carried over	12,250 0 0	4,856 4 0	

Division.	District.	Name of individual by whom constructed.	Description of work.	Place where constructed.	Cost.	Total of district.	Grand total of Division.
					Rs. A. P.	Rs. A. P.	Rs. A. P.
		Brought forward ...			12,250 0 0	4,958 4 0	...
Dacca— concl'd.	Mymensingh	Gopi Nath Chakravarti ...	Tank ...	Netrokona ...	200 0 0		
		Arip Bepari ...	Do. ...	Sanketpur ...	232 0 0		
		Douabandhu Baisanab ...	Do. ...	Saahai ...	300 0 0		
		Maharajah Kamal Krishna Bahadur.	Do. ...	Nazirpur ...	1,100 0 0		
		Taramani Chaudburani ...	Do. ...	Taraganj ...	1,000 0 0		
		Shak Nath Jogi ...	Do. ...	Bandagourkhata ...	500 0 0		
		Kandu Sheikh ...	Do. ...	Raghnathpur ...	400 0 0		
		Works costing less than Rs. 200 each.	Do. ...		80 0 0		
		CLASS IV (b).					
		abi Bepari ...	Well ...	Charbholamari ...	300 0 0		
		CLASS V (c).					
		Jalab Lal Saha ...	Charitable dispensary.	Duajani ...	200 0 0		
				GRAND TOTAL	...	17,102 0 0	22,148 4 0
	Chittagong	Gokul Chandra De ...	Tank ...	Habilashdip ...	500 0 0		
		Abdul Ali ...	Do. ...	Chuga Char ...	200 0 0		
		Chaila Po Chaudhuri ...	Do. ...	Kakchah ...	400 0 0	1,100 0 0	
CHITTAGONG.	Noakhali	Maharaja Bir Chandra Barman of Hill Tippera.	Tank ...	Rajar Bazar ...	600 0 0		
		Abdulali and Golbakhsh ...	Do. ...	Noapur ...	500 0 0		
		Norbakhsh ...	Do. ...	Jalal Durganagar ...	300 0 0		
		Bakhsh Ali Patwari ...	Do. ...	Haripur ...	200 0 0		
		Works costing less than Rs. 200 each.			200 0 0	1,805 0 0	
	Tippera	Govinda Pal ...	Tank ...	Humar Char ...	600 0 0		
		Asgar Khandakar ...	Do. ...	Alma ...	300 0 0		
		By villagers on subscription	Re-excavation of a khul.	From Bakhsipara to Bala-lhal.	600 0 0		
		Arab ...	Tank ...	Sachar ...	500 0 0		
		Shafar Ali ...	Do. ...	Do. ...	400 0 0		
		Golak Chung ...	Do. ...	Khebrabari ...	400 0 0		
		Jiban Chung ...	Do. ...	Do. ...	500 0 0		
		Protap Chandra De ...	Do. ...	Bancherampur ...	250 0 0		
		Itab Asutosh Rai ...	A big tank	Nasiragar ...	1,500 0 0		
		Ditto ...	Tank ...	Do. ...	350 0 0		
		Ditto ...	Do. ...	Chaportola ...	450 0 0		
		Works costing less than Rs. 200 each.			400 0 0	6,500 0 0	
	Chittagong Hill Tracts.	Nil ...	Nil ...	Nil ...	Nil.		9,455 0 0
PATNA	Patna	Nil ...	Nil ...	Nil ...	Nil.		
	Gaya	E. Solano, Esq. ...	Embankment	Kinjar, Mirzapore	486 8 0		
		Do. ...	Irrigation channel.	Koil ...	210 0 0		
		Do. ...	Ditto	Kaler ...	308 10 0		
		Do. ...	Well	Jalalpur ...	214 6 6		
		Babu Sajwan Singh ...	Do. ...	Ganburpur ...	200 0 0		
		Do. ...	Do. ...	Bazahi ...	200 0 0		
		E. Solano, Esq. ...	Quarters for Civil Hospital Assistant at Arwal Charitable Dispensary.	Wasipur ...	(a) 716 12 3		
		Works costing less than Rs. 200 each			1,182 12 3	3,519 0 0	
	Shahabad	Babu Lachuman Prosad Mukhtar of Bagh Munsapandey, Arrah.	1 pucks well	Bagh Munsapandey, Arrah	375 0 0		
		Do. Jatish Chundra Baurji, Plender, Arrah.	1 tank	Pakari Mahallah, Arrah	300 0 0		
		Do. Dullari Suo of Dumri	1 pucks well	Dumri	400 0 0		
		Do. Charitar Gosain of Dha-knich.	Do.	Dhaksich	800 0 0		
		Mussamat Champakali Kuar of Neazipur.	Do.	Neazipur	202 0 0		
		Babu Deeki Karmi of Dumari	Do.	Darsan	300 0 0		
		Do. Padarath Teh of Nya Bhojpur.	Do.	Rampur Mutia	400 0 0		
		Carried over			2,337 0 0	3,519 0 0	...

(a) Out of the amount Rs. 329 was contributed by the District Board, Gaya.

Division.	District.	Name of individual by whom constructed.	Description of work.	Place where constructed.	Cost.	Total of district.	Grand total of Division.
		Brought forward ..	.....	.....	Rs. A. P. 2,337 0 0	Rs. A. P. 3,519 0 0	Rs. A. P. .....
Shahabad— concluded.		Babu Ram Saran Dubey, of Durga Mahabir Pandey's wife, of Madhupur.	2 Pucka wells	Hanka	200 0 0	5,937 0 0	
		Babu Mahabir Prasad Rai, of Patna city.	1 Tank	Bardha	600 0 0		
		Works costing less than Rs. 200 each	.....	Kabar	300 0 0		
					2,500 0 0		
Darrbhanga— continued.		Musamat Girji Koomar, of Soombha.	Tank	Soombha	2,000 0 0	55,146 0 0	
		Babu Sant Lal Jha, of Hirni	Do.	Hirni	1,500 0 0		
		" Sultan Gope, of Shewnagar	Do.	Shewnagar	1,100 0 0		
		" Binjoo Gope, of Halumannagar.	Do.	Halumannagar	1,000 0 0		
		" Bhikhari Gope, of Havidach	Do.	Havidach	600 0 0		
		" Ganesh Datt Singh, of Raghupur.	Do.	Raghupur	306 0 0		
		" Jatal Choudhary, of Havi Bhawarah.	Do.	Rambadarpur	1,600 0 0		
		" Bhyan Jha, of Harpur	Do.	Harpur	1,700 0 0		
		" Khedan Buan, of Kathimah	Do.	Kathimah	650 0 0		
		" Jeknath Singh	Do.	Do.	655 0 0		
		" Jhungai Noma	Do.	Raghunathpur Bela, par-gana Setaisa.	1,200 0 0		
		" Ishi Lal Jha	Do.	Relari, pargana Setaisa	1,000 0 0		
		" Singheser Rai, of Makrampur.	Do.	Makrampur	700 0 0		
		" Ganesh Misir, of Sunderpur	Do.	Sunderpur	800 0 0		
		" Mooshai Jha, of	Do.	Do.	700 0 0		
		" Raj Thakur, of Saurath	Do.	Saurath	600 0 0		
		" Churaman Goala, of Dhami-lua.	Do.	Dhamilua	700 0 0		
		" Bacha Jha, of Bhatsinar	Do.	Bhatsinar	700 0 0		
		" Jhumak Sahu, of Belahi	Do.	Belahi	1,000 0 0		
		" Fajdar Singh, of Mohan-barhman.	Do.	Mohanbarhman	500 0 0		
		" Nathu Pande, of Lachampur	Do.	Lachampur	500 0 0		
		" Shewran Tewari, of Bhutli	Do.	Bhutli	1,000 0 0		
		" Bhagwan Datt Sukul, of Bhutli.	Do.	Do.	1,000 0 0		
		" Chhata Jha, of Sariso Tola Beta.	Do.	Sariso Tola Beta	900 0 0		
		" Jhatur Jha, of Sariso	Do.	Sariso	400 0 0		
		" Nathu Pande, of Makenda	Do.	Makenda	500 0 0		
		" Jhumak Sahu, of Bhaur	Do.	Bhaur	1,000 0 0		
		" Kanhai Singh, of Narainpur	Do.	Narainpur	500 0 0		
		" Bhagat Singh, of Bhitar	Do.	Bhitwar	1,300 0 0		
		" Lal Behari Maithia, of Pallur	Do.	Palur	385 0 0		
		" Mahanth Radhegir, of Marukia.	Do.	Marukia	300 0 0		
		" Moosa Sahu, of Marukia	Do.	Do.	300 0 0		
		" Mohar Gawala, of Nahar-rupauli.	Well	Naharupauli	250 0 0		
		Maulvi Nazir Miyan, of Balaut	Tank	Balaut	500 0 0		
		" Dilan Miyan, of Parsauni	Do.	Parsauni	1,000 0 0		
		" Sheikh Sujan, of Parsauni	Do.	Narsauni	600 0 0		
		" Sheikh Jauli, of do.	Do.	Do.	800 0 0		
		Babu Paron Misir, of Barari	Do.	Barari	400 0 0		
		" Ram Lal Goala, of do.	Do.	Do.	400 0 0		
		" Chhutan Kewat, of Jatra	Do.	Jatra	600 0 0		
		" Manohar Gope, of Ijra	Do.	Ijra	1,000 0 0		
		" Harakhdhan Singh, of Bhawanipur.	Do.	Barhi	700 0 0		
		" Bungah Kulwar, of Barbara	Do.	Barbara	1,000 0 0		
		" Kooni Koeri, of Bardahi	Do.	Bardahi	1,500 0 0		
		" Madhoo Mander, of Narahi Mahthour.	Do.	Narahmahthour	1,200 0 0		
		" Choa Mander, of Rajarampur	Do.	Rajarampur	1,100 0 0		
		" Buni Sahu, of Matahi	Do.	Parsauni	1,300 0 0		
		" Bacha Das, of Matahi	Do.	Matahi	1,300 0 0		
		" Ifira Mander, of Tharhi	Do.	Tharhi	1,100 0 0		
		" Mohur Mander, of Awarahia	Do.	Awarahia	100 0 0		
		" Gopali Mander, of Tengrar	Do.	Tengrar	1,000 0 0		
		" Santokhi Gope, of Belha	Do.	Belha	700 0 0		
		" Chano pati Gope, of Belha	Do.	Do.	700 0 0		
		" Hanuman Chowdhry, of Madheypur.	Do.	Madheypur	1,200 0 0		
		" Bikoo Sahu, of Belancha	Do.	Belancha	1,000 0 0		
		" Bichun Sahu, of do.	Do.	Do.	1,000 0 0		
		" Fakira Koeri, of do.	Do.	Do.	1,000 0 0		
		Musamat Mouli, of Bheja	Do.	Bheja	1,000 0 0		
		Babu Jaldhar Thakur, of Bhit Bhagwanpur.	Do.	Madanpur, Khrowni	2,035 0 0		
		" Bharosi Jha, of Bhakhrain	Do.	Bitauna	900 0 0		
		" Bansi Jha, of Chuni	Do.	Chuni	700 0 0		
		" Madhu Mallah, of Dowlakh	Do.	Dowlakh	300 0 0		
		Giman Misra, of Khajuri Bishunpur.	Tank	Khajuri Bishunpur	900 0 0		
		Works costing less than Rs. 200 each	.....	.....	205 0 0		
		Carried over ..	.....	.....	.....	61,802 0 0	.....

Division.	District.	Name of individual by whom constructed.	Description of work.	Place where constructed.	Cost.	Total of district.	Grand total of Division.
					Rs. A. P.	Rs. A. P.	Rs. A. P.
		Brought forward	.....	.....		61,802 0 0	
	Narain	Mussamat Ram Batti Kuer	1 Tank	Jagatpura	1,000 0 0		
		Babu Shree Sahai Sinha	1 Do.	Barwa	400 0 0		
		" Gora Babu Kalwar	1 Do.	Bhatwa	400 0 0		
		" Rajpur Dasath	1 Well	Pipra	200 0 0		
		Works costing less than Rs. 200 each	.....	.....	2,335 0 0	4,535 0 0	
	Champaran	Babu Harbhungi Misser	Pond	Near Seewowlee Railway Station.	5,000 0 0		
		" Keshana Ram	Do.	"	1,000 0 0		
		" Ram Babu	Well	Kawangola	200 0 0		
		Mulvi Nandak Mian	Do.	Amodat	200 0 0		
		Mussamat Jiraoon Shekbin	Do.	Khai wa	500 0 0		
		Babu Anro p. Ojha	Pond	Barcote	2,000 0 0		
		" Hazari Mad	Well	Betrich	200 0 0		
		Mahant Kancha Gir	Pond	Dhankatwa	200 0 0		
		Babu Neph Babu	Do.	Kelooma	200 0 0		
		" Bahori M. Babu	Well	Lassui	200 0 0		
		" Khagobur Amir	Road	Barwa	200 0 0		
		Sub-Inspector Ramlal Singh	Tank	Bugha	325 0 0		
		Works costing less than Rs. 200	.....	.....	7,530 0 0	17,285 0 0	
PATNA		Babu Nisao Tankoor	1 Well	Dohra	200 0 0		
—recoltd.		M. D. Macerzoe, Esq.	1 Bridge	Deoria	1,000 0 0		
		Mussamat Sabti Rapo tin	1 Tank	Pinlach	400 0 0		
		Babu Nisao Thakoor	1 Do.	Lachwara Bagouth	400 0 0		
		Wife of Chandroo Romar	1 Do.	Satebaganj	5,000 0 0		
		Babu Baldeo Singh	1 Do.	Madhubani	500 0 0		
		George Robert Louncey, Esq.	1 Do.	Narwar	1,000 0 0		
		Babu Ambika Pershad	1 Do.	Dighi	300 0 0		
		Moulvi Sajad Ali Jolaha	1 Bridge	Sadpur	400 0 0		
		" Isadad Hussain	5 Tanks	Chupra Khopbat	200 0 0		
		Babu Tribhuvan Gwala	1 Tank	Rampur Dumar	1,000 0 0		
		" Ram Chandra Lal	1 Bridge	Sadharutta	1,000 0 0		
	Muzaffarpur	" Bakh omandin Thakur	1 Tank	Atna	300 0 0		
		" Raghoocondan Singh	2 Bridges	Panoura	300 0 0		
		" Duto	1 Old tank	Do.	500 0 0		
		" Tulshi Roy	1 Tank	Peepa	400 0 0		
		" Bahari out	1 Do.	Bishunpur	400 0 0		
		" Bhagwat Subai	1 Do.	Do.	500 0 0		
		" Pritam Singh	1 Do.	Muhamamedpur	400 0 0		
		" Koonerain Chowdhry	1 Do.	Bhatha	500 0 0		
		" Dukharan Gwala	1 Do.	Gora	500 0 0		
		" Pichu Abesi	1 Do.	Lampur	400 0 0		
		L. I. Crowley, Esq., Manager of Indigo Factory.	1 Do.	Bolesand	200 0 0		
		Works costing less than Rs. 200 each	.....	.....	13,528 0 0	29,849 0 0	1,16,971 0
		CLASS II(a).					
		Bachai Gope	Embankment 400 feet long.	Satghoria	400 0 0		
		CLASS IV(a).					
		Nakkhu Lal	1 Tank	Rajgoora	1,200 0 0		
		Kally Babban	Do.	Sirawani	400 0 0		
		Kaoni Mandur Gope	Do.	Utasia	1,000 0 0		
		Be hlu Sao	Do.	Gopalpur	600 0 0		
		Babu Lachmi Prasad	Do.	Bahadurpur	2,000 0 0		
		Maulvi Tafazul Hossein Khan	Do.	Sheikpura	600 0 0		
		CLASS IV(b).					
		Shaik Jesta	1 Pucka well	Sandapur	300 0 0		
		Gopadmi Shaw	Do.	Kalianpur	200 0 0		
		Maharaja Durbhanga	Do.	Kharakpur	200 0 0		
		Dhano M. Chitron	Do.	Ichora	250 0 0		
		Mejha Nagore	Do.	Chishampur	250 0 0		
		Gurdial Singh	Do.	Burha	300 0 0		
		Batu Das	Do.	Do.	200 0 0		
		Bolaki Teli	Do.	Bodhitola	200 0 0		
		Chandroo Singh	Do.	Burha	200 0 0		
		Durga Lal	Do.	Girappur	200 0 0		
		Ganga Charn Das	Do.	Jayatpur	200 0 0		
		Gyanbur Lal	Do.	Shahadpur	200 0 0		
		Ba haw Teli	Do.	L. dghana	300 0 0		
		Jhagir B. Babu	Do.	Shahadpur	200 0 0		
		Jagadhar Singh	Do.	Chak Isouf	300 0 0		
		Jagan Lal	Do.	Serampur	300 0 0		
		S. Jagad Hossein	Do.	Pipra Laif	250 0 0		
		Guni Gope	Do.	Tebaidi	200 0 0		
		Dowasul Teli	Do.	Tega	200 0 0		
		Kani Singh	Do.	Barowni	200 0 0		
		Gang Singh Babban	Do.	Bahunggaon	300 0 0		
		Batu Gope	Do.	Barowni	250 0 0		
		Gonosh Shaw	Do.	Phulberia	300 0 0		
		Carried over	.....	.....	11,700 0 0	.....	.....

DIVISION.	District.	Name of individual by whom constructed.	Description of work.	Place where constructed.	Cost.	Total of district.	Grand total of Division.
					Rs. A. P.	R. A. P.	Rs. A. P.
		Brought forward			11,700 0 0		
	Monghyr	Rabi Roy	Pucka well	Simuria	300 0 0		
		Rupen Sato	Ditto	Bathali	300 0 0		
		Battoo Teli	Ditto	Nunga	300 0 0		
		Tulsi Teli	Ditto	Mahana	300 0 0		
		Ram Pershad Chowdhry	Ditto	Nayatala Rahimpur	300 0 0		
		Badhoo Singh	Ditto	Katamala	300 0 0		
		Shib Sahay Misser	Ditto	Sadipur	313 0 0		
		Nanha Mahdon	Ditto	Khanbapur	300 0 0		
		Halooman Sonar	Ditto	Bariapu	30 0 0		
		Shukhan Chowdhry	Ditto	Gurabapur	30 0 0		
		Guhan Singh	Ditto	Dadhor	300 0 0		
		Raja Ram Narain Singh	Ditto	Khaira	450 0 0		
		Joypati Lal	Ditto	Dachabi	30 0 0		
		Nabu Tarini Pershad	Ditto	Mata	450 0 0		
		Pakur Singh	Ditto	Dadhor	30 0 0		
		Fath Mahammad Khan	3 Pucka wells	Bilapur Sunda	400 0 0		
		Maharaja Ramnagar Prosad Singh	1 Pucka well	Rampur	300 0 0		
		Mir Ismail Sahab	Ditto	Hoomadeh	600 0 0		
		Khagpat Singh	Ditto	Satur	300 0 0		
		Kiso Das	Ditto	Budholi	300 0 0		
		Mohant Mouram	Ditto	Begunrai	30 0 0		
		Thakur Pershad	Ditto	Kithama	300 0 0		
		Shiro Burchi	Ditto	Chinail	300 0 0		
		Shib Dayal Gir	Ditto	Haibapur	300 0 0		
		Medoo Mahdon Gowala	Ditto	Hari Singh	600 0 0		
		Bani Das Gossain	Ditto	Ditto	600 0 0		
		Chanchal Shao Haiwai	Ditto	Rajwara	300 0 0		
		Behari Saha	Ditto	Hishampur	300 0 0		
		Benarasi Lal	Ditto	Hamirpur	300 0 0		
		Works costing less than Rs. 200 each			4,250 0 0		
						33,912 0 0	
		CLASS IV (a).					
	Bhagalpur	Mussamat Srianti Sumitra Pandani	1 Tank	Simbhuganj	1,300 0 0		
		Rang Lal Khawas	Do.	Domara	550 0 0		
		Shank Nali Akshah	Do.	Katahara	30 0 0		
		Shorasi Chowdhry	Do.	Ditto	200 0 0		
		Kari Chowdhry	Do.	Ditto	250 0 0		
		Babe Tejendra Naisai Singh	Do.	Khatail	1,300 0 0		
		Sikoo and Mir Fakhsh	Do.	Sisow	378 0 0		
		Kanhai Manar	Do.	Dubiani	600 0 0		
		Kori Mandar	Do.	Pipri Hari	700 0 0		
		Samdyal Das	Do.	Bela Begamganj	700 0 0		
		Hita Sahu Tei	Do.	Ditto	200 0 0		
		Dukha Chowdhry	Do.	Tola Bela	324 0 0		
		Nathur Gope	Do.	Manjaha	325 0 0		
		Chumak Mukhia	Do.	Ditto	330 0 0		
		Halla Mukhia	Do.	Ditto	30 0 0		
		Girdhari Chowdhry	Do.	Ditto	250 0 0		
		Sen Lal Chowdhry	Do.	Thoomala	900 0 0		
		Bholo Chowdhry	Do.	Ditto	60 0 0		
		Birbal Beldar	Do.	Karibo	600 0 0		
		Hirman Gowala	Do.	Belakhara	600 0 0		
		Mohant Fekan Das	Do.	Karibo	800 0 0		
		Khanter Khawas	Do.	Ditto	700 0 0		
		Shaya Ram Das	Do.	Pooran	300 0 0		
		Achhai Lal Chowdhry	Do.	Solagpur	275 0 0		
		Bhikhai Jha	Do.	Solabani	555 0 0		
		Modi Mander	Do.	Mahous	600 0 0		
		Bendhi Kumbhar	Do.	Ditto	350 0 0		
		Sanath Pandey	Do.	Bhelahi	700 0 0		
		Pooran Singh	Do.	Dharkha Tola, Bishanpar	2,000 0 0		
		Bachi Koeri	Do.	Banama	300 0 0		
		Ramdhani Kori	Do.	Bathnaha	600 0 0		
		Rami Gowala	Do.	Dharahara	400 0 0		
		Gohari Mander	Do.	Baltherba	400 0 0		
		Yam Gope	Do.	Hurpur	1,000 0 0		
		Laloo Koeri	Do.	Bela Simar	600 0 0		
		Karam Sahu	Do.	Baltherba	30 0 0		
		Bur Lal Mander	Do.	Nirmali	600 0 0		
		Jawahar Kumbhar	Do.	Simri	400 0 0		
		Maharaja of Parbhanga	Do.	Dagmara	1,800 0 0		
		Ditto ditto	Do.	Chaptiabi	1,800 0 0		
		Dasrath Bhagat	Do.	Partabganj	2,000 0 0		
		Jhosi Mander	Do.	Chowraha	350 0 0		
		Mussamat Hita	Do.	Chowdharani	300 0 0		
		Nauoo Jha	Do.	Arisha	250 0 0		
		Gama Nati Misser	Do.	Baloo	40 0 0		
		Pabai Kant	Do.	Permananapur	300 0 0		
		Achambhit Jha	Do.	Harpur Pakla	300 0 0		
		Hane Jha	Do.	Hasanpur	400 0 0		
		Bi-u Mander	Do.	Bhimnagar	600 0 0		
		Bhagwan Datt Jha	Do.	Kalya	600 0 0		
		Bhagwan Chowdhry	Do.	Ditto	600 0 0		
		Jhumak Mander	Do.	Parbaha	600 0 0		
		Ram Anugraha Chowdhry	Do.	Chikla Bardraa	600 0 0		
		Carried over			31,885 0 0		

DIVISION.	District.	Name of individual by whom constructed.	Description of work.	Place where constructed.	Cost.	Total of district.	Grand total of Division.
		Brought forward ...	.....	.....	Rs. A. P. 31,885 0 0	Rs. A. P. .....	Rs. A. P. .....
		CLASS IV(a)—contd.					
		Satau Mander ...	Tank	Sukhesan ...	600 0 0		
		Narain Mander ...	Do.	Lawkhi ...	400 0 0		
		Moosahroo Mander ...	Do.	Mooraipur ...	600 0 0		
		Priobrata Narain Singh ...	Do.	Pachgachia ...	600 0 0		
		Bacha Babu ...	Do.	Ditto ...	600 0 0		
		Gopal Choudhry ...	Do.	Bijalpur ...	600 0 0		
		Raja Padmanand Singh ...	Do.	Nawhutta ...	700 0 0		
		Janki Sahoo ...	Do.	Auniamoti ...	400 0 0		
		Jhingoo Jha ...	Do.	Ditto ...	300 0 0		
		Sonman Sahoo ...	Do.	Asai ...	400 0 0		
		Nena Rai ...	Do.	Ackarh ...	400 0 0		
		Lalji Rai ...	Do.	Ditto ...	300 0 0		
		Gobind Rai ...	Do.	Ditto ...	400 0 0		
		Bacha Jha ...	Do.	Bara ...	400 0 0		
	Bhagalpur	Chaitoo Singh ...	Do.	Maina ...	1,000 0 0		
		Lal Behari Singh ...	Do.	Koonharatola-Ihanbara ...	400 0 0		
		Lalji Jha ...	Do.	Bisena ...	600 0 0		
		Foolshes Chowdhry ...	Do.	Moorli ...	600 0 0		
		Lalikaant Jha ...	Do.	Bongraon ...	600 0 0		
		Sanath Mander ...	Do.	Kasimpur ...	400 0 0		
		Jhonti Mander ...	Do.	Ditto ...	600 0 0		
		CLASS IV(b).					
		Bhirgoo Saran Misser ...	Well	Paraldih ...	600 0 0		
		Gobardhan Das ...	Do.	Muhammaddpur ...	300 0 0		
		Gurpat Singh ...	Do.	Balaha ...	360 0 0		
		Works costing less than Rs. 200 each	.....	.....	930 0 0	14,615 0 0	
		CLASS IV(a).					
		Kanahi Mandal ...	Tank	Bishunpur-Thamasganj ...	650 0 0		
		Jhumak Chowdhry ...	Do.	Puraudaha-Dhaudaha ...	600 0 0		
		CLASS IV(b).					
		Chikoo Mistry Kamar ...	Pucca well	Mirganj-Dhamdaha ...	250 0 0		
		Musamat Soodhi Gowalin ...	Ditto	Gobindpur-Dhamdaha ...	300 0 0		
	Purnea	Rubi Chowdhry Banhan ...	Ditto	Dhaudaha-Nayatola ...	350 0 0		
		Musamat Rungpati Gowalin ...	Ditto	Maldwa-Araria ...	200 0 0		
		CLASS V(c).					
		Maharaja of Darbhanga ...	Dispensary	Burhara ...	100 0 0		
		Works costing less than Rs. 200 each	.....	.....	105 0 0	2,455 0 0	
		CLASS IV(a).					
		Haru Kumar Chuckerbutty ...	One tank	Nachan ...	700 0 0		
		Maharani Shurnomayee ...	Do.	Behala ...	600 0 0		
		Sirau Mandal ...	Do.	Nasrabad ...	1,600 0 0		
		Chajpat Mandal ...	Do.	Darvespur ...	700 0 0		
	Malda	Ram Lochan Mandal ...	Do.	Barhail ...	600 0 0	3,600 0 0	
		CLASS IV(a).					
		Rajib Lochan Mandal ...	One tank	Asanboni ...	2,915 0 0		
		Ram Kumar Bhaya and Harhar Singh, Ghutwal.	Repair to an old bandh.	Rangtaur ...	200 0 0		
		Loknath Chowdhry ...	New tank	Assensole ...	200 0 0		
		Nileo Raut ...	New handh	Gidhanda ...	200 0 0		
	Sonthal Parganas.	Durga Mahton ...	Repair to a tank	Sadanauddih ...	250 0 0		
		CLASS IV(b).					
		Kali Prasad Patraoikih ...	New pucca well	Koshmaha ...	200 0 0		
		Works costing less than Rs. 200 each	.....	.....	2,337 0 0	6,302 0 0	81,184 0 0
		CLASS IV(a).					
		Paidi Frodhan of Misauonda ...	One tank	Dibakarpur, police-station Jhalasore.	610 0 0		
		Chandramoni Bewa of Asti ...	Do.	Bara Moisuri, police station Balispal.	400 0 0		
		Sahebram Naik of Kharidipal ...	Do.	Pulina, police-station Balispal.	250 0 0		
	Balasore	Raja Brikuntha Nath De Bahadur of Balasore.	Redigging a tank	Sudipuri, police-station Balasore.	3,764 0 0		
		Danodai Das of Talpada ...	Two tanks	Talpada, police-station Balasore.	200 0 0		
		Madan Patter of Sahaji Patna ...	One tank	uniro, police-station Balasore.	200 0 0		
		Anda Mahapatra of Mitnam ...	Do.	Mugoonguria, police-station Balasore.	80 0 0		
		Carried over ...	.....	.....	5,804 0 0		



Division.	District.	Name of individual by whom constructed.	Description of work.	Place where constructed.	Cost.	Total of district.	Grand total of division.
					Rs. A. P.	Rs. A. P.	Rs. A. P.
		Brought forward ...	.....	.....	5,804 0 0	.....	.....
		Kanhu Panigrahi of Dalong ...	One tank ...	Dalong, police-station	400 0 0		
		Musamat Sulochana Dei of Sobharanpur.	Do. ...	Nowpur, police-station	200 0 0		
		Latiffar Raheman of Isufpur ...	Do. ...	Kuana, police-station	400 0 0		
		Brāja Mohun Harichandan Roy of Sadanandpur.	One cutcha road ...	Sadanandpur, police-station	200 0 0		
		Padma Bewa of Mokulpur ...	One tank ...	Banpur, police-station	200 0 0		
	Balasore	Boudi Satpati of Gourunipukhuri.	Do. ...	Bhajanpur, police-station	250 0 0		
		Arjoon Das of Alili ...	Do. ...	Alili, police-station	200 0 0		
		Bipros Das of Madhupari	Do. ...	Madhupari, police-station	100 0 0		
		Upendra Santia Koomum ...	Do. ...	Koomum, police-station	250 0 0		
		Meoti Sootar of Gurnipokhorin ...	Do. ...	Gurnipokhorin, police-station	2 0 0		
		Works costing less than Rs. 200 each.	.....	.....	1,5 5 0	10,169 0 0	
		Jannemenjoy Nand of mauza Protaprudrapur, zilla Puri.	One large tank ...	Mauza Ultpurnankur, outpost Gobindpur, thana Jagatonepur.	2,000 0 0		
		Kujang Warli's Estate ...	One tank ...	Mauza Dhanapara			
		Ditto ...	Do. ...	" Khosua			
		Ditto ...	Do. ...	" Kavanj	800 0 0		
		Ditto ...	Do. ...	" Jadpur			
		Ditto ...	Do. ...	" Badagaon			
		Ditto ...	Do. ...	" Balesua			
		Ratan Maharatha ...	Do. ...	" Gharimal	300 0 0		
		Kanka Ward's Estate ...	Do. ...	" Kuruli	488 8 0		
		Ditto ...	Do. ...	" Bargadanda	250 0 0		
		Rani of Killah Balarampur	One pucca well ...	" Rajnagar	200 0 0		
		Bhaghat Huri Das ...	One tank ...	" Ghazni	300 0 0		
		Works costing less than Rs. 200 each.	.....	.....	1,211 0 0	5,609 8 0	
	Puri	Baisab Behera ...	One tank ...	Tunburapur, Banpur thana	1,050 0 0		
		Works costing less than Rs. 200 each.	.....	.....	231 8 0	1,281 8 0	17,060 0 0
		Poti Sah ...	A well ...	Mauza Nagri, police-station Dumri.	300 0 0		
		Babu Sarada Narain Singh ...			2,000 0 0		
		" Torul Narain Singh ...			1,000 0 0		
		" Paresb Nath Singh ...			200 0 0		
		" Dhunwar, Court of Ward's Estate.			200 0 0		
		Mr. Christou of Tisri ...			200 0 0		
		Basso Singh ...			100 0 0		
		Thakurdul Roy and Tulai Roy ...			100 0 0		
		Golab Pande ...			200 0 0		
		Harial Pande ...			100 0 0		
		Rayaz Ali ...			100 0 0		
		Raja of Jamtara ...			100 0 0		
		Harnath Singh ...			100 0 0		
		Peary Mahan Basu ...			100 0 0		
		Mr. W. Stattray ...	Pucca hospital building.	Giridih, thana Giridih ...	200 0 0		
		Tekcet of Leda ...			50 0 0		
		Tekcet of Nandha ...			50 0 0		
		Khaja Wahid Jan ...			100 0 0		
		Tekcet of Kachbari ...			50 0 0		
		Tekcet of Kishgo ...			50 0 0		
		Mit Narain Geer ...			50 0 0		
		Hazari Mull ...			50 0 0		
		Thakur Jado Charan Singh			100 0 0		
		Tillo Roy ...			75 0 0		
		Udit Narain Singh ...			50 0 0		
		Works costing less than Rs. 200 each.	.....	.....	1,571 4 0	8,546 4 0	
	Lohardaga	Nil ...	Nil ...	Nil ...	Nil.		
	Palamu	Seth Iltaf Hussain, Tiedadar of Bakora.	Pucca well ...	Bakoria Lateyahar, police-station.	200 0 0		
		Nathu Ram Marwari, at present residing at Chakradharpur.	A well ...	Chakradharpur	500 0 0	250 0 0	
		Ram Pal of Purulia ...	A tank ...	Kaliam ...	400 0 0		
		Baidya Nath Maity of Maratakora.	Do. ...	Maratakora ...	500 0 0		
	Singhbhum	Dinar Mahato of Jirapara ...	Do. ...	Jirapara ...	800 0 0		
		Karick L. ha of Kuldaha ...	Do. ...	Durku ...	500 0 0		
		Works costing less than Rs. 200 each.	.....	.....	91 0 0	2,791 0 0	
	Manbhum	3 Works costing less than Rs. 200 each.	.....	.....	361 0 0	361 0 0	11,949 4 0

## SUMMARY.

			Rs.	A.	P.
Total of Burdwan Division	...	...	53,576	0	0
„ of Presidency	„	...	31,842	0	0
„ of Hajshahi	„	...	97,222	0	0
„ of Dacca	„	...	22,148	4	0
„ of Chittagong	„	...	9,455	0	0
„ of Patna	„	...	1,16,971	9	9
„ of Bhagalpur	„	...	81,184	0	0
„ of Orissa	„	...	17,960	0	0
„ of Chota Nagpur	„	...	11,948	4	0
Total	...	...	4,41,407	1	9

Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 11th November, 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL.</b>			
Burdwan Divn.	1 Bardwan Nov. 11, '93	0.18	Weather—cool and cloudy. <i>Aman</i> rice continues good. <i>Rabi</i> crops being sown.
	Kalna ...	Nil	Prices of common rice:—
	Katwa ...	0.05	Srs. 10 to 14
	Raniganj ...	0.02	Burdwan ... 9 to 13 } per rupee.
			Kalna ... 14½
			Katwa ... 12½
			Raniganj ... 12½
Burdwan Divn.	2 Bankura „ 11, '93	0.18	Weather—generally cloudy. Prospects of standing crops fair. Fodder and water sufficient. Common rice (new) selling at 17½ seers per rupee at Sadar and 17 seers at Vishnupur.
	3 Birbhum „ 11, '93	Nil	Weather—cloudy in the beginning of the week, but latterly clear. Harvesting of <i>aus</i> paddy going on and <i>aman</i> rice doing well. Fields being prepared for sowing of <i>rabi</i> crops. Price of common rice stationary.
	Rampur Hât ...	Nil	
	4 Midnapore „ 11, '93	0.05	Weather—cloudy at night and occasional breaks of sunshine during day. Prospects of crops good. Fodder and water sufficient. Prices of common rice:—
			Srs. 12
			Sadar ... 13 } per rupee.
			Contai ... 13
Burdwan Divn.	5 Hooghly „ 11, '93	0.06	Weather—cloudy; nights getting colder. <i>Aman</i> paddy doing well. <i>Rabi</i> crops being sown. Prices of common rice:—
	Serampore ...	0.01	Srs. 12 to 13
	Jahanabad ...	Nil	Serampore ... 10 to 14 } per rupee.
			Jahanabad ... 11 to 14½
	6 Howrah „ 11, '93	Nil	Weather—cloudy. Winter rice and sugarcane doing well. Fodder and water sufficient. Price of common rice 10 to 11 seers per rupee.
	Ulubaria ...	0.02	
	7 24 Parganas „ 11, '93	0.03	Weather—seasonable. Prospects of crops fair except in the Bankipur thana. Ploughing and sowing of <i>rabi</i> crops going on. Prices of common rice:—
Presidency Divn.			Srs. c. 9 to 11 7 } per rupee.
			Sadar ... 11 0
			Barasat ... 9 13½
			Basilhat ... 11 0
			Diamond Harbour ...
	8 Nadia „ 11, '93	0.26	Weather—slightly cool. Prospects of <i>aman</i> crop fair. Sowing of winter crops going on. Water and fodder sufficient.
	Kushtia ...	0.30	
Presidency Divn.	Meherpur ...	0.36	
	Chuadanga ...	0.31	
	Ranaghat ...	Nil	
	9 Khulna „ 11, '93	0.12	Weather—cloudy and cool. Prospects of <i>aman</i> excellent. <i>Rabi</i> crops coming on. Date-trees being stripped for tapping.
	Bagerhat ...	Nil	
	Satkhira ...	Nil	
	10 Jessore „ 11, '93	0.04	Weather—cloudy. Prospects of <i>aman</i> rice continue fair. Lands are still being ploughed for <i>rabi</i> crops, and where sown the plants look promising. No cattle-disease reported. Fodder and water sufficient. Prices steady.
Presidency Divn.	Jhenida ...	0.29	
	Narail ...	0.8	
	Bangaon ...	0.04	
	11 Murshidabad „ 11, '93	Nil	Weather—seasonable but cloudy at times. Prospects of <i>aman</i> crop good. Sowing of <i>katai</i> over. Sugarcane doing well. Fodder and water sufficient for cattle. Common rice sells at 13 seers per rupee.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.									
BENGAL— <i>concd.</i>												
CHITTAGONG DIVN.	12 Chittagong Nov. 11, '93	Nil	Weather—cloudy at times, but getting pleasant. Prospects of standing crops fair. Ploughing for cold-weather crops continues. Prices have slightly risen. Condition of cattle generally good. Supply of fodder sufficient.									
	13 Noakhali „ 11, '93	0.05	Weather—cloudy and warm. Harvesting of late <i>aus</i> paddy completed. <i>Aman</i> thriving well. No cattle-disease except in Lakmipur. Fodder and water available. Price of rice ranges from 9 to 10 seers per rupee.									
	14 Tippera „ 11, '93	Nil	Weather—seasonable. Prospects of crops good in the Sadar subdivision, but not so in the Brahmanbaria subdivision where insects are causing much damage. Outturn of 8 to 10 annas is expected in the Chandpur subdivision.									
	15 Chittagong Hill Tracts. „ 10, '93	Nil	Weather—foggy in the morning, indicating cold weather. Reaping of early plough paddy going on. Late plough-paddy progressing. Condition of cattle generally good. Common rice selling at 8 seers 14 chitaks per rupee.									
DACCA DIVN.	16 Dacca „ 11, '93	Nil	Weather—seasonable. Harvesting of <i>aman</i> paddy commenced. Prospects favourable. Sowing of mustard, <i>mug</i> , and <i>kalai</i> nearly finished. Common rice selling from 7 to 11 seers per rupee. Fodder available. No cattle-disease.									
	17 Faridpur „ 11, '93	0.09	Weather—fine. <i>Aman</i> being cut. In Goalundo subdivision a grub has done some damage to standing rice. Price of rice 10 to 12 seers per rupee.									
	Goalundo „	0.18	Fodder generally sufficient.									
	Madaripur „	Nil										
18 Backergunge „ 11, '93	Nil	Weather—hot. Sky clear and cloudy at intervals. Prospects of standing crops fair. Common rice sells from 8 to 10 seers per rupee. Fodder and water sufficient.										
19 Mymensingh „ 11, '93	0.23	Weather—seasonable. Prospects of standing crops good. An insect pest has made its appearance in the Netrakona subdivision and done some damage to the <i>aman</i> crop. Common rice selling from 8 to 10 seers per rupee. Condition of cattle good except at Badla in the Netrakona subdivision. Supply of fodder sufficient except in some places in the Kishorganj subdivision.										
RAJSHAHI DIVN.	20 Dinajpur „ 11, '93	Nil	Weather—cool. Prospects of standing crops very good. Mustard, pulses and winter vegetables are being sown.									
	Thakurgaon „	Nil										
	21 Rajshahi „ 11, '93	Nil	Weather—seasonable: getting cooler every day. Prospects of standing crops good everywhere; in places very good. Sufficiency of fodder and water-supply. No cattle-disease. Price of rice varies from 10 to 13 seers per rupee.									
	Nator „	Nil										
	Naugaon „	Nil										
	22 Rangpur „ 11, '93	Nil	No rainfall. Weather fairly cool in subdivisions, rather warm in head-quarters for time of year. Crops are reported fair. Tobacco is being transplanted. No cattle disease.									
	Nilphamari „	Nil										
Gaibanda „	Nil											
Kurigaon „	Nil											
23 Bogra „ 11, '93	Nil	Weather—fine. Prospects of <i>aman</i> very good. Lands are being ploughed for <i>rabi</i> . Common rice sells at 12 seers per rupee. Fodder and water sufficient.										
24 Pabna „ 11, '93	0.24	Weather—cool and pleasant. State of standing crops fair. Price of common rice at Snajganj Rs. 4-4 to Rs. 4-8 per maund and at Sadar 10 seers per rupee. Fodder and water-supply sufficient.										
25 Darjeeling „ 11, '93	0.17	Weather—bright and cool. <i>In the hills</i> :— <i>Aghani dhan</i> , <i>marua</i> , and <i>kalai</i> ripening. <i>Toree</i> , <i>phaphur</i> , wheat, barley and potatoes progressing favourably. <i>In the Terai</i> :— <i>Kalai</i> , <i>til</i> , and <i>haimanti dhan</i> doing well. Potatoes, mustard and tobacco being sown. Prices of coarse rice:—										
Siliguri „	Nil	<table><tr><td>Hills</td><td>...</td><td>...</td><td>...</td><td>9</td></tr><tr><td>Terai</td><td>...</td><td>...</td><td>...</td><td>11</td></tr></table> } per rupee.	Hills	...	...	...	9	Terai	...	...	...	11
Hills	...	...	...	9								
Terai	...	...	...	11								
26 Jalpaiguri „ 11, '93	Nil	Weather—days hot, nights cool. Prospects of <i>haimanti</i> paddy good. Cultivation of tobacco and other cold-weather crops going on. Common rice sells at 12 seers per rupee. Fodder and water sufficient. No cattle-disease.										

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR.</b>			
BHAGALPUR DIV.	27 Mouglur Nov. 11, '93 Nil	Nil	Weather—fair and seasonably cool; cloudy from 7th to 9th with drizzling rain. Prospects of standing crops good. <i>Rabi</i> sowings commenced. Indigo, sugarcane and <i>kurthi</i> doing well. Cattle-disease towards Waradib and Sikandra. Fodder and water sufficient. Prices of common rice :— Srs. Sadar ... .. 12 to 15 } Begusarai ... .. 12 to 14 } per rupee. Jamui ... .. 14 }
	Begusarai ... Nil	Nil	
	Jamui ... Nil	Nil	
	28 Bhagalpur .. 11, '93 0.03	0.03	Weather—cloudy in the beginning of the week; latterly fine and clear with light north-west wind. Prospects of winter rice splendid everywhere. <i>Rabi</i> sowings nearly completed. Sugarcane promises well. Price of common rice 15 seers 2 chitaks per rupee.
	Banka ... Nil	Nil	
	Mudhipura ... 0.05	0.05	
	Supaul .. Nil	Nil	
	29 Purnea .. 11, '93 0.02	0.02	Weather—overcast with east wind at first, now seasonable. Prospects of <i>aghani</i> and <i>kurthi</i> very good. <i>Rabi</i> sowings progressing favourably. Fodder and water plentiful. Prices tending to cheapen.
	Kishanganj ... Nil	Nil	
	Araria ... Nil	Nil	
	30 Malda .. 11, '93 Nil	Nil	Weather—getting cooler. Harvesting of winter rice begun in some places; outturn expected to be 16 annas. <i>Kalai</i> pulse in flower. Sowing of <i>rabi</i> crops continues. Ordinary rice sells at 11 to 21 seers per rupee. Supply of fodder and water sufficient.
	31 Sonthal Parganas .. 11, '93 Nil	Nil	Weather—cloudy with an occasional slight drizzle. Prospects of crops excellent. Reaping of paddy continues. <i>Rabi</i> seeds still being sown. Fodder and water sufficient.
	Deoghur ... Nil	Nil	
	Godda ... Nil	Nil	
	Jamtara ... Nil	Nil	
PATNA DIVISION.	Pakur ... Nil	Nil	Weather—cloudy with slight showers on two days during the week. Paddy crop is coming to maturity with full outturn. Sowing of <i>rabi</i> and poppy still going on. Prospects continue good. Prices of common rice :— Srs. Sadar ... .. 19 } Barh ... .. 13 } per rupee. Bihar ... .. 17 } Dinapore ... .. 15 }
	Rajmahal .. Nil	Nil	
	32 Patna .. 11, '93 0.07	0.07	Weather—fair in the beginning and cloudy at the end of the week, cool at night. Prospects of paddy favourable. <i>Rabi</i> sowings in progress. Poppy sowings commenced. Prices stationary. Water and fodder-supply ample.
	Barh ... Nil	Nil	
	Bihar ... 0.06	0.06	
	Dinapore ... 0.11	0.11	
	33 Gaya .. 11, '93 0.03	0.03	Weather—since the rain it has cleared up completely and is now quite settled. State and prospects of crops favourable. No damage done by the light rain of the week.
	Jahanabad ... 0.05	0.05	
	Aurangabad ... 0.12	0.12	
	Nawada ... 0.03	0.03	
	34 Shahabad .. 11, '93 0.23	0.23	Weather—seasonable. Prospects of rice crop continue favourable. <i>Rabi</i> sowings in progress. Fodder and water for cattle sufficient. Prices stationary.
	Buxar ... 0.40	0.40	
	Sasaram ... 0.43	0.43	
	35 Darbhanga .. 11, '93 0.04	0.04	Weather—fair but cloudy on two days. Prospects of rice crop continue good. <i>Rabi</i> sowings still going on. Opium sowings retarded to same extent. A few cases of <i>dakaha</i> (cattle-disease) reported from Bela and Majorganj outposts in Sitamarhi subdivision. Fodder and water-supply sufficient.
	36 Munaffarpur .. 11, '93 0.16	0.16	
	Hajipur ... 0.02	0.02	
	Sitamarhi ... 0.12	0.12	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
BIHAR—consolid.			
PATNA DIVISION—consolid.	37	Saran Nov. 11, '93	38
		Siwan ...	0.33
		Gopalganj ...	0.10
	Weather—cloudy for several days, getting gradually cooler in the day time. State and prospects of crops good. <i>Rabi</i> cultivation rapidly progressing. Any more rain may be injurious now. Poppy sowings begun, but unusually late owing to recent rain. Water and fodder plentiful. Prices of common rice:—		
			Srs. c.
		Chapra ... ..	16 0
		Siwan ... ..	19 0
		Gopalganj ... ..	16 14
			} per rupee.
	38	Champaran „ 11, '93	0.06
			Weather—hot during day and cool at night. <i>Aghani</i> in good condition. <i>Rabi</i> sowings going on. Prices nearly stationary. Fodder and water sufficient.
ORISSA—A.			
ORISSA DIVN.	39	Cuttack „ 11, '93	Nil
			Weather—seasonable. Prospects good. <i>Sarad</i> harvest commenced. Price of common rice unchanged. Supply of fodder sufficient.
	40	Puri ...	...
			Report not received.
	41	Balasore „ 11, '93	0.04
			Weather—seasonable. Crops doing well. Fodder and water sufficient. Price of rice about 19 seers per rupee.
CHOTA NAGPUR.			
South-West Frontier Agency.			
CHOTA NAGPUR DIVN.	42	Hazaribagh Nov. 11, '93	Nil
		Giridi ...	Nil
			Weather—seasonable. <i>Rabi</i> sowings in progress. Paddy being harvested with good results generally. Common rice 10 to 17 seers per rupee. Fodder and water abundant.
	43	Lohardaga „ 11, '93	0.12
			Weather—cloudy. Harvesting of winter rice and sowing of mustard continue. Common rice selling at 17 seers per rupee. Fodder and water sufficient.
	44	Palaman „ 10, '93	0.25
			Weather—cloudy and unsettled. Cutting of <i>katha dhan</i> nearly completed in some parts with a full outturn. <i>Rabi</i> sowings slightly retarded by the cloudy weather; what has been already sown has germinated freely. Prospects excellent. A little cattle-disease reported. Rice selling from 14 to 20 seers per rupee. Fodder and water-supply sufficient.
	45	Singhbhum „ 11, '93	0.11
			Weather—cloudy throughout the week with light drizzle. All crops in excellent condition. Harvesting of paddy going on with 16 annas average outturn. Price of rice stationary.
	46	Manbhum „ 11, '93	Nil
		Gobindpur ...	Nil
			Weather—cloudy with occasional sunshine. High land crops very good. Low lands somewhat damaged by late rain. Prices of common rice ranging between 14 and 18 seers per rupee. Fodder and water sufficient.

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 14th November, 1893.

M. FINUCANE,  
Offg. Secy. to the Govt. of Bengal.

## STATEMENT SHOWING THE STOCKS OF RICE IN AND AROUND CALCUTTA.

NAMES OF PLACES.	STOCK IN HAND AS COMPILED ON—										
	1st week of Nov. 1892	1st week of Dec. 1892	1st week of Jan. 1893	1st week of Feb. 1893	1st week of Mar. 1893	1st week of Apr. 1893	1st week of May 1893	1st week of June 1893	1st week of July 1893	1st week of Aug. 1893	1st week of Sept. 1893
Bahadur	4,31,600	3,15,000	3,34,000	4,00,000	6,20,000	17,31,000	12,53,000	10,31,000	8,67,000	7,10,500	4,83,000
Uttaranga	57,300	57,300	60,200	75,700	98,500	1,15,500	1,17,700	1,13,700	65,000	61,500	53,900
Chitpur, Guabara, Khar- too, Hattow, and Gopal Guat.	5,04,500	7,40,700	6,64,700	7,01,200	6,54,500	6,45,000	6,63,200	6,45,100	6,54,500	7,06,700	6,25,000
Patnabhatia, Patsa, and Jorahat.	2,500	2,000	3,000	8,000	8,300	8,000	2,500	2,000	2,500	3,000	2,000
Tollymore, Chetla Kidderpore, and Banchisai.	51,100	40,000	57,000	1,14,200	1,40,400	1,50,700	1,70,200	1,33,800	1,20,800	1,17,800	1,06,000
21 Minor basars (estimated) ...	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000
Other retail shops, 3,129 in number (estimated).	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000
Baidrathi, Nowabzai, Rha- dreshwar, and Chatterpore.	31,125	40,037	63,901	60,500	76,389	6,622	5,319	25,575	26,750	10,844	17,344
Total	16,35,825	14,87,117	16,08,571	18,77,000	20,80,280	23,12,402	27,12,010	24,04,575	22,57,050	20,70,014	17,77,246
On Railway premises on both sides of the river.	6,573	21,737	5,750	1,700	6,200	15,728	10,000	31,312	18,512	25,127	9,453
(By Port Commis- sioners' re- turned ...)	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
(By Canal returns ...)	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Grand total of Stocks ...	16,71,000	15,00,872	16,02,447	19,10,000	22,82,700	24,12,740	27,20,500	25,07,575	23,57,050	21,70,535	18,92,374
Probable stock available for exportation by sea.	64 lakhs	5 lakhs	74 lakhs	10 lakhs	13 lakhs	134 lakhs	174 lakhs	164 lakhs	144 lakhs	134 lakhs	74 lakhs

STATISTICAL DEPARTMENT,  
The 11th November, 1893.M. FINUCANE,  
Offg. Secy. to the Govt. of Bengal.

Meteorological Report of the Province of

METEOROLOGICAL DIVISION.	DISTRICT.	Representative stations.	STATION OBSERVATIONS.														HUMIDITY.	
			AIR PRESSURE.				WIND.		TEMPERATURE.									
			Highest, 8 A.M. barometer reading.	Lowest, 8 A.M. barometer reading.	Mean, 8 A.M. reduced to 32°.	Mean reduced to sea-level and constant sea-level 32° F.	Variation from normal mean.	Mean direction at 8 A.M.	Mean velocity in miles daily.	of	Highest month.	Lowest of month.	Mean daily maximum temperature.	Mean daily minimum temperature.	Mean daily temperature.	Variation from normal mean.	Mean, 8 A.M.	Variation from normal mean.
ORISSA.	Puri	Puri	30.029	29.733	29.884	29.893	—	N 5° W	198	03.7	70.6	88.9	77.3	83.2	—	78	—	
		Gopalpur False Point	30.033	29.736	29.870	29.881	—0.010	N 22° W	206	03.2	67.1	87.8	77.9	80.9	—1.7	84	—	
	Cuttack	Cuttack	30.028	29.736	29.882	29.885	—0.010	N 34° W	184	03.3	68.1	87.5	75.2	81.4	+0.3	84	—2	
		Balasore	29.963	29.670	29.805	29.808	—0.017	N 53° W	42	03.2	65.8	89.5*	74.5	81.9*	—0.4	77	—2	
	Balasore	Balasore	29.988	29.675	29.833	29.838	—0.016	N 4° W	75	02.4	66.8	87.6	73.5	80.6	+0.4	80	—	
SOUTH-WEST BENGAL.	Midnapore	Midnapore	29.808	29.503	29.756	29.759	—0.011	N 13° E	48	03.3	66.2	88.5	73.0	81.1	+0.8	82	—	
	24-Parganas	Calcutta	30.016	29.704	29.874	29.881	—0.015	N 16° W	53	00.1	70.2	86.4	74.9	80.7	+0.1	84	+1	
		Saugor Island	30.020	29.704	29.865	29.881	—0.016	N 27° W	217	00.2	71.0	87.0	76.7	81.8	+0.3	87	0	
	Howrah	Howrah	29.990	29.670	29.847	29.843	—0.008	N 65° E	89	01.8	69.2	87.5	74.8	81.1	+0.4	81	—	
	Hooghly	Hooghly	29.998	29.686	29.862	29.863	—0.010	N 11° W	01	02.6	70.4	87.9	75.6	81.7	—0.2	88	+2	
NORTH BENGAL.	Nadia	Krishnanagar	29.990	29.670	29.847	29.843	—0.008	N 65° E	89	01.8	69.2	87.5	74.8	81.1	+0.4	81	—	
	Khulna	Khulna	29.998	29.686	29.862	29.863	—0.010	N 11° W	01	02.6	70.4	87.9	75.6	81.7	—0.2	88	+2	
	Jessore	Jessore	29.998	29.686	29.862	29.863	—0.010	N 11° W	01	02.6	70.4	87.9	75.6	81.7	—0.2	88	+2	
	Burdwan	Burdwan	29.719	29.410	29.575	29.581	+0.002	N 18° E	63	01.1†	70.2	87.4	75.1	81.3	—0.4‡	83	+2	
		Rangaj	29.719	29.410	29.575	29.581	+0.002	N 5° W	41	†	65.0	†	73.0	†	†	85	—	
EAST BENGAL.	Bankura	Bankura	29.735	29.405	29.586	29.589	—0.010	N 18° E	40	02.1	68.7	87.4	73.7	80.6	—0.4	83	—	
	Birbhum	Birbhum	29.735	29.405	29.586	29.589	—0.010	N 18° E	40	02.1	68.7	87.4	73.7	80.6	—0.4	83	—	
	Murshidabad	Berhampore	29.968	29.640	29.833	29.840	—0.010	N 73° E	49	00.6	69.7	86.5	75.9	81.2*	0	91	+9	
	Pabna	Serajganj	29.976	29.637	29.851	29.847	—0.017	E	39	01.1	68.2	87.2	74.1	80.7	+0.7	91	—	
	Hogra	Hogra	29.952	29.643	29.829	29.843	—0.009	N 55° E	43	00.2	68.2	86.6	73.8	79.7	—0.4	87	—	
NORTH BENGAL.	Rajshahi	Rampur Hoala	29.956	29.644	29.829	29.840	—0.009	N 41° E	84	00.1	67.7	86.9	74.1	80.5	+0.0	81	—	
	Malda	Malda	29.959	29.637	29.818	29.829	—0.009	N 11° E	62	01.0	68.0	86.7	73.6	80.2	—	87	—	
	Dinajpur	Dinajpur	29.917	29.598	29.757	29.806	+0.002	N 16° E	29	01.6	66.3	87.1	73.8	80.5	0	86	—	
	Rangpur	Rangpur	29.918	29.587	29.781	29.806	+0.014	N 89° E	33	01.3	64.7	87.0	73.2	80.1	+0.7	88	—	
	Jalpaiguri	Jalpaiguri	29.782	29.446	29.645	29.800	+0.003	N 61° E	87	00.3	61.6	86.9	71.3	79.1	+1.0	85	—	
EAST BENGAL.	Kuch Bihar	Kuch Bihar	29.782	29.446	29.645	29.800	+0.003	N 61° E	87	00.3	61.6	86.9	71.3	79.1	+1.0	85	—	
	Darjeeling	Darjeeling	29.438	29.098	29.050	—	—0.003	N 65° E	76	08.6	42.7*	61.6	49.8*	55.9	+1.0	85	+8	
	Sikkim	Gumtong	29.041	18.821	18.913	—	—0.015	N 64° E	67	53.9	23.1	46.7	34.1*	44.0*	—	74	—	
	Chittagong	Chittagong	29.692	29.629	29.661	29.800	—0.015	N 84° E	89	06.7	70.1	85.8	73.8	79.0	—0.2	91	—	
	Chittagong Hill Tracts	Domagiri	29.692	29.629	29.661	29.800	—0.015	N 84° E	89	06.7	70.1	85.8	73.8	79.0	—0.2	91	—	
NORTH BENGAL.	Backergunge	Barisal	29.993	29.686	29.862	29.863	—0.010	N 27° E	57	00.8	70.9	87.2	75.1	81.2	+1.0	88	—	
	Noakhali	Noakhali	29.978	29.667	29.830	29.836	—0.013	N 86° E	98	01.5	68.8	84.9	71.5	79.7	—0.3	92	—	
	Faridpur	Faridpur	29.940	29.647	29.861	29.866	—0.017	N 45° E	39	03.5	70.9	86.0	75.8	80.9	+0.8	88	—	
	Dacca	Dacca	29.907	29.711	29.904	29.871	+0.006	N 15° E	87	00.6*	70.2*	87.1*	74.5*	80.8	—0.0	87*	+2	
	Tippera	Comilla	29.902	29.608	29.862	29.816	—0.006	N 76° E	65	01.3	69.8	86.9	71.1	80.3	—0.6	88	—	
SOUTH BENGAL.	Mymensingh	Mymensingh	29.964	29.650	29.834	29.849	—0.008	N 68° E	64	01.2	68.6	85.9	74.0	79.9	—0.6	91	—	
	Purnea	Purnea	29.920	29.587	29.778	29.808	—0.009	S 6° W	14	01.4	61.3	86.9	73.8	80.3	+2.7	90	+4	
	Bhagalpur	Bhagalpur	29.874	29.542	29.731	29.806	—0.009	S 56° E	15	01.7	65.0	87.0	72.5	80.0	+0.9	85	—	
	Darbhanga	Darbhanga	29.880	29.543	29.734	29.806	—0.022	N 9° W	61	01.0	68.2	86.0	73.8	79.9	—0.1	85	0	
	Muzaffarpur	Muzaffarpur	29.862	29.534	29.722	29.800	—0.025	S 27° E	73	01.2	63.8	86.1	70.8	78.4	+0.7	85	—	
NORTH BENGAL.	Champaran	Motihari	29.801	29.466	29.662	29.806	—0.028	S 27° E	73	01.2	63.8	86.1	70.8	78.4	+0.7	85	—	
	Saran	Chhapra	29.854	29.536	29.714	29.800	—0.025	S 11° W	73	02.8	65.6	87.5	72.3	79.9	+0.8	78	—	
	Shahabad	Dehri	29.713	29.389	29.558	29.807	—0.008	S 20° W	136	01.8	62.5	87.1	70.2	78.7	+0.5	80	—	
	Gaya	Buxar	29.863	29.485	29.655	29.807	—0.017	S 23° W	75	03.0	63.9	87.8	72.0	79.9	+0.3	80	—	
	Patna	Arrah	29.848	29.524	29.702	29.806	—0.010	N 31° W	50	03.4	61.0	88.5	72.1	80.3	+1.5	84	—	
SOUTH BENGAL.	Gaya	Gaya	29.666	29.348	29.521	29.801	—0.013	S 36° E	125	03.4	64.7	88.0	72.0	80.3	+0.1	82	+9	
	Patna	Bankipore	29.864	29.539	29.717	29.801	—0.020	S 27° W	70	01.5	66.3	86.6	72.9	79.9	—0.7	70	—1	
	Monghyr	Monghyr	29.864	29.539	29.717	29.801	—0.020	S 27° W	70	01.5	66.3	86.6	72.9	79.9	—0.7	70	—1	
	Sonthal Parganas	Naya Dumka	29.545	29.229	29.404	29.556	—0.002	N 7° W	†	00.6	66.1	86.6	72.5	79.6	+0.7	80	—	
	Hazaribagh	Hazaribagh	29.015	27.735	27.884	29.853	—0.010	N 10° W	147	06.7	69.7	82.1	65.7	73.9	—1.1	78	+6	
CHOTA NAGPUR.	Lohardaga	Lohardaga	29.889	27.620	27.754	29.845	—0.022	N 36° W	106	05.5	66.6	80.9	66.1	73.5	—0.6	80	—	
	Palamu	Daltonganj	29.665	29.346	29.512	29.812	—0.006	N 76° W	91	00.3	57.0	84.7	68.0	74.4	—	79	—	
	Saundhar	Chandrasa	29.275	28.975	29.124	29.808	—0.006	E	11	02.4	61.6	88.0	70.9	79.5	+0.4	83	—	
	Manbhum	Manbhum	29.275	28.975	29.124	29.808	—0.006	E	11	02.4	61.6	88.0	70.9	79.5	+0.4	83	—	
	Sibbargarh	Sibbargarh	29.789	29.389	29.623	29.816	+0.002	S 63° E	39	†	62.1	83.8	84.4	71.2	77.8	—0.3	96	+3
ASSAM.	Guwahati	Guwahati	29.331	29.000	29.797	29.807	—0.011	N 63° E	117	01.5*	65.9	85.2*	71.7	78.5*	—0.7*	93	0	
	Juchhar	Silchar	29.947	29.608	29.814	29.810	—0.001	N 63° E	8	05.6	60.3	88.3	72.7	80.5	—4.2	91	+1	

\* Mean of 29 days.

\* Mean of 24 days.

† Mean of 25 days.

‡ Mean of 24 days.











**in Bengal in October 1893—continued.**

[illegible]



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## SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSERVATIONS TAKEN IN ASSAM, FOR THE MONTH OF OCTOBER 1893.

THE weather during October has been unusually disturbed. Two moderate or feeble barometric depressions have been formed. The first advanced over the South-East Bengal, and the second over the west of the Bay and the Madras Presidency. A severe barometric depression or cyclonic storm also formed to the west of the Bay and advanced through the Central Provinces into Oudh. A very small but severe cyclone also formed in the south-east of the Bay and advanced up the Bay first in a north-westerly and finally in a north-easterly or east north-easterly direction, striking the land to the south of Barisal and passing over Noakhali. Lastly, a small cyclonic storm formed in the centre of the Bay and advanced north-eastwards into Burma. Hence with these five storms weather in Bengal has been unusually disturbed, and rainfall has been much heavier than usual, the falls being in excess in all districts, and the excess being large in North Bihar, East Bengal, and Chota Nagpur.

During the first week of the month fine settled weather prevailed generally over the Bay and over Bengal, except over parts of the eastern districts when weather was showery. The rainfall over the eastern districts was caused by the formation of a very shallow barometric depression in Burma, which advanced northwards over the east of the Bay into Lower Bengal, where it filled up on the 4th or 5th. The rainfall continued in the south-eastern districts of Bengal for several days, and then gradually extended westwards to the western districts, and on the 7th the falls were fairly general in South-West Bengal. From the morning of the 8th, however, an area of comparatively low pressure was developed in the west of the Bay off the Madras coast, which continued to develop slowly from the 9th to the 12th, and which advanced partly over the south of the Peninsula on the 13th, causing the commencement of the Madras rains. In connection with this low pressure area winds became easterly over Bengal, and with the moist winds which were blowing over the province, numerous rain showers continued to be reported in all districts except Bihar throughout the second week of the month. The depression continued to exist over the Madras Presidency on the 14th and 15th, but on the 16th a fresh barometric depression of considerable intensity was formed off the east coast of the Peninsula with a centre probably to the east of Masulipatam and Coconada. This was decidedly more influential than the former one, and it at first commenced to advance in a north-westerly and afterwards in a northerly direction, the centre being near Raipur on the 17th and on the 18th close to Lucknow. From the 17th to the 18th it had therefore advanced over about 400 miles, or at the rate of 17 miles an hour. On the 19th the storm had passed into the Himalayas, and was probably close to Ranikhet, but it was evidently breaking up, and on the 20th it had ceased to exist. It as usual brought up with it a heavy wave of monsoon winds, and this spread over the whole of North-Eastern India, and gave moderately heavy rain to Bengal, the falls from the 16th to the 21st being particularly heavy. Indeed, many of the stations in North Bihar reported from 5 to 10 inches of rain on the 19th, while in the Darjeeling Hills the average fall was from 3 to 4 inches.

Before this last storm had finally broken up and long before its effects had ceased, another storm was in process of formation. Its history probably dates from the 17th or 18th, and it dispersed about the 23rd, so that its life was short. The following is a description of the storm taken principally from the Bengal Weekly Meteorological Report:—

On the 17th and 18th conditions in the south-east of the Bay again became unsettled, but there was no definite disturbance till the 19th, when stormy weather developed rather rapidly to the west of Diamond Island. A depression of no great extent but of much greater depth than the previous storm and of very considerable intensity near the centre moved rather rapidly into the centre of the northern half of the Bay on the 19th to the 20th. Though a diffused low pressure area was then shown by the observations taken at the coast stations, there was no sign of stormy weather except at Diamond Island up till the 20th, and the depth of the depression and the character of the resulting storm could not be estimated.

On the 21st it had moved north north-westwards or north-westwards, and was near the centre of the northern half of the Bay. It was then giving few indications of its existence at the meteorological stations, and none of its intensity or direction of motion. After moving in a north-westerly direction it appears to have changed gradually towards the north-east, and on the morning of Sunday, the 22nd, rushed with great rapidity towards the mouth of the Megna, the centre of the disturbance probably passing close to Noakhali. At 8 A.M. on the 22nd pressure fell more than a quarter of an inch at Chittagong, Noakhali, and Barisal, the wind blowing with moderate strength from east at the first station and from north-east at the other two. The centre was then probably to the south of the line joining Chittagong and Barisal and equally distant from them; but as its rate of motion appears to have been unusually high, it must have passed over Noakhali some time during the next two hours. At 11 o'clock pressure was rising at Chittagong, and the storm-wave which accompanied the depression was then reported to be passing up the river there. From Noakhali no information has been received regarding the passage of the disturbance. That hurricane winds blew over the north-east of the Bay and in East Bengal to some distance



from the coast is shown by the fact that the Mutlah light-ship broke loose from her anchorage, and much damage was done to the shipping between Narainganj and Chittagong. Wind velocity rose to 25 miles at Chittagong on Sunday; but as the storm was of small extent and soon reached the hilly ground to the east of Tippera, it was very shortlived after passing inland. Pressure rose rapidly, and the rough weather quickly moderated. So far very little appears to be known regarding the storm-wave which washed over part of the islands at the mouth of the Megna. There is, however, sufficient to show that it must have devastated the parts near the coast, causing great destruction to property and probably loss of human life.

General heavy rain fell in East Bengal on the 22nd and 23rd, and light scattered showers in other parts of Lower Bengal and Orissa, but except near the centre of the depression weather continued fine, and the only change was in the light cloud disappearing after the rapid rise of pressure mentioned above. From the 22nd onwards till the 28th fine clear weather with northerly winds prevailed over the province. In the south of the Bay, however, an apparently immediate result of the recovery of pressure in the north-east of the Bay was the beginning of another storm which caused cyclonic winds at the Burma stations. Judging from reports received from the shipping, it must have commenced near the centre of the Bay, because squally weather was experienced about longitude  $88^{\circ}$  and latitude  $16^{\circ}$  on the 24th. Its course from its formation very probably was to the north-east, and it struck the coast of Burma, moving in this direction between the 28th and 29th at no great distance to the north of Diamond Island. Pressure changes were small everywhere, but a regular cyclonic circulation of winds prevailed over the whole Bay area. Wind velocity steadily increased at Diamond Island, till on the 27th an average of 50 miles was reported for the 24 hours preceding 8 a.m. on that date. It soon after crossed the coast, and as in the case of the previous storm diminished much in intensity on encountering the hilly ground near the coast. The stormy weather which accompanied its advance soon passed away.

As this disturbance did not approach the north coast of the Bay, its influence in Bengal was very slight, being shown only in the increase of cloud in the southern districts, and in a few light showers. The northerly winds increased somewhat in strength, but soon fell off as the pressure distribution became normal. During the latter portion of the month therefore weather was usually fine over almost the whole of Bengal.

*Pressure.*—For the first week the average pressure was below the normal, the defect varying from 0.05 inch in Orissa and Chota Nagpur to nearly 0.1 inch in the east of the province. In the second week the defect was a little smaller and ranged from 0.04 inch in the east of the province to 0.06 inch in the western districts. In the third week pressure was in defect in Orissa and Chota Nagpur due to the effect of the depression passing to the west of these divisions, but elsewhere it had become in excess by small amounts, and in the last week of the month pressure was in excess over the whole province, the excess ranging from very small amounts only in South-East Bengal to about 0.05 inch and 0.06 inch in parts of Bihar.

Hence the variations from the normal for the whole month have been small, and at only a few stations equal as much as 0.02 inch. At practically all stations the average pressure for the month has been below the normal, the usual defect averaging about 0.01 inch.

*Temperature* was in excess during the first week by less than half a degree, but in the second week the excess had increased to  $1.2^{\circ}$ . In the third week owing to the heavy rain which had commenced temperature became below the normal in almost all districts, but the defect was only about a third of a degree, but in the last week the defects had increased considerably, and temperature was about half a degree low in North Bihar and North Bengal, between half degree and one degree in defect in South Bihar, South-West and East Bengal, and in defect by  $1.3^{\circ}$  in Orissa, and by more than  $2^{\circ}$  in Chota Nagpur.

The mean temperature for the month has only varied from the normal by a few tenths of a degree at the majority of stations, and in almost all cases slight excess amounts have been registered. Slight defects on the other hand have been registered at the extreme eastern stations, and at some in Central Bengal and Chota Nagpur and at Darbhanga and Patna. In almost all cases, however, the variation of the average mean temperature for the month from the normal has been less than  $1^{\circ}$ .

In the case of the day or maximum temperatures they have been lower than usual by about a degree, but on the other hand the night or minimum temperatures have been in excess by a larger amount, frequently equalling about  $2^{\circ}$ , so that the mean daily temperature has also been above the normal.

*Rainfall.*—The falls over the province have averaged from about four to seven inches, having been smallest in South Bihar and Chota Nagpur and largest in East Bengal and Orissa. In North Bihar, which has received more than five-and-a-half inches, there has been an excess fall of more than two inches, and in East Bengal with a fall of more than seven inches, there has been an excess of 1.7 inches. In Chota Nagpur with an average fall of 4.37 inches, the excess has equalled 1.10 inches, but in the other meteorological divisions the excess amounts have been comparatively small, but all divisions show a distinct excess above the ordinary fall for October.

The number of rainy days has also been in decidedly large excess of the normal in all the seven meteorological divisions.

The following table gives a comparison between the actual monthly and total rainfall and the normal rainfall of the province up to the end of October in the same form as has

been employed in the previous monthly abstracts of the present year. The figures represent the ratio of the rainfall of each month of the present year to the normal rainfall expressed as a percentage. The table thus gives a condensed summary of the rainfall data of the year for each meteorological division. The first ten columns give the percentage amount of rainfall received in each month, and the last column the percentage rainfall of the whole period from the 1st of January to the end of October :—

METEOROLOGICAL DIVISIONS.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	Actual rainfall of first ten months of 1893 expressed as a percentage of the normal fall for the period.
Orissa ...	422	309	238	89	607	99	67	84	186	102	148
South-West Bengal ...	120	464	160	115	225	183	94	64	123	108	130
North Bengal ...	104	377	145	213	96	109	166	90	100	106	116
East Bengal ...	80	291	123	149	207	134	103	100	85	131	124
North Bihar ...	170	357	134	208	84	100	151	85	143	158	125
South Bihar ...	116	602	188	255	171	156	122	74	132	122	125
Chota Nagpur ...	155	585	226	151	212	185	121	72	170	147	141

It will be seen the excess amounts for October range from 2 per cent. in Orissa and 5 per cent. in North Bengal to 47 per cent. in Chota Nagpur and 58 per cent. in North Bihar, and, taking all the seven meteorological divisions to have an equal value in the calculation, the rainfall in October for the whole province has been 25 per cent. larger than usual.

It will also be seen from the above table that the falls for the whole of the year up to the end of October have been in excess in all divisions by amounts ranging from 16 per cent. in North Bengal to 41 per cent. in Chota Nagpur and 48 per cent. in Orissa. Again, considering all the divisions of equal value, the rainfall for the year over the whole of the province has been 30 per cent. in excess of the normal fall.

The following table gives full data for the comparison of the actual and normal rainfall of the month of October in all districts of the province. The figures are obtained in the manner explained in previous monthly summaries. The first column gives the average district rainfall as determined from the rainfall observations of the past 15 years. The second column gives the actual district rainfall as determined from the actual weighted rainfall of the month at the reporting stations in the district. The third column expresses the ratio of the actual district rainfall to the normal as a percentage, and the fourth the same information in a slightly different form :—

Percentage Table for October 1893.

DIVISION.	DISTRICT.	Normal district rainfall for October.	Actual district rainfall for October 1893.	Percentage of actual to normal rainfall.	Percentage excess (+), defect (-).
Orissa	Puri	7.42	11.60	156	+ 56
	Cuttack	5.89	5.18	91	- 9
	Balasore	5.36	5.31	99	- 1
	Midnapore	5.28	4.60	87	- 13
	24 Parganas	4.46	5.84	131	+ 31
	Howrah	3.65	4.88	134	+ 34
	Hooghly	4.07	7.23	178	+ 78
South-West Bengal	Burdwan	4.16	4.18	100	0
	Bankura	3.77	3.74	99	- 1
	Birbhum	3.41	3.77	111	+ 11
	Nadia	4.17	4.76	114	+ 14
	Khulna	4.52	4.26	94	- 6
	Jessore	4.45	3.69	83	- 17
	Murshidabad	4.37	4.40	101	+ 1
	Chittagong	6.60	14.91	226	+ 126
	Backergunge	5.62	7.45	133	+ 33
	Noakhali	7.37			
East Bengal	Faridpur	4.24	3.18	75	- 25
	Dacca	4.61	5.04	109	+ 9
	Tippera	5.26	7.93	151	+ 51
	Mymensingh	5.32	6.30	118	+ 18

Percentage Table for October 1893—conold.

DIVISION.	DISTRICT.	Normal district rainfall for October.	Actual district rainfall for October 1893.	Percentage of actual to normal rainfall.	Percentage excess (+), defect (—).
North Bengal	Pabna	4.13	3.85	87	— 13
	Bogra	1.31	7.05	162	+ 62
	Rajshahi	4.54	4.9	91	+ 10
	Malda	3.62	4.17	115	+ 15
	Dinajpur	4.14	4.10	119	+ 19
	Rangpur	4.16	2.47	55	— 45
	Kuch Bihar	4.09	4.62	93	— 7
North Bihar	Jalpaiguri	5.00	2.84	51	— 49
	Darjeeling	6.96	5.49	79	— 21
	Purnea	3.43	2.99	87	— 13
	Bhagalpur	3.50	2.94	81	— 16
	Darbhanga	2.72	6.35	23	+ 133
	Muzaffarpur	3.03	8.80	290	+ 190
	Champaran	3.46	8.57	218	+ 144
South Bihar	Saran	3.71	6.16	165	+ 65
	Shahabad	3.19	5.19	161	+ 61
	Gaya	2.68	2.74	106	+ 6
	Patna	2.97	3.69	124	+ 24
	Monghyr	3.13	2.16	69	— 31
	Sonthal Pargannas	3.62	4.01	111	+ 11
	Hazaribagh	3.26	5.63	170	+ 70
Chota Nagpur	Lohardaga	2.68	4.54	169	+ 69
	Palamau	2.81	2.94	105	+ 5
	Singbhum	2.94	0.76	26	— 74
	Manbhum	3.68	3.41	93	— 7

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the month of October 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE						RAINFALL.							
	Highest observed during month.	Lowest observed during month.	Averages for month.			Average mean of month above or below normal mean of month.	Of month.			Rainy days.			Since 16th Oct. 1893.	
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in month.	Normal average number in month.	Variation.	Average.	Normal Average.
Orissa	83.7	65.8	88.2	74.9	81.6	- 0.2	6.26	6.16	+ 0.10	6.80	6.76	+ 0.04	4.97	2.50
South-West Bengal	85.2	65.0	87.8	74.8	81.4	+ 0.3	4.70	4.63	+ 0.37	6.89	5.22	+ 1.67	2.06	1.70
North Bengal	91.6	61.6	80.0	73.3	80.1	+ 0.5	4.59	4.58	+ 0.21	5.84	4.30	+ 1.54	3.00	1.42
East Bengal	91.3	68.6	80.3	74.5	80.4	- 0.1	7.13	5.43	+ 1.70	8.72	6.07	+ 2.65	4.02	1.83
North Bihar	82.8	63.8	86.6	72.6	79.6	+ 1.0	5.55	3.52	+ 2.03	4.06	2.94	+ 1.12	5.32	0.91
South Bihar	83.4	62.5	87.5	72.0	79.8	+ 0.4	4.63	3.30	+ 0.73	4.55	3.30	+ 1.10	3.38	1.02
Chota Nagpur	92.4	59.7	83.7	67.6	75.6	- 0.5	4.37	2.97	+ 1.40	5.27	4.29	+ 1.07	3.00	0.81
Assam	85.6	63.8	86.0	71.9	78.0	- 0.4								

\* Daltonganj not included

METEOROLOGICAL OFFICE, BENGAL,

The 14th November 1893.

A. PEDLER,

Meteorological Reporter to the Govt. of Bengal.

Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	STATION OBSERVATIONS.													
	District.	Representative station.	AIR PRESSURE.				WIND.		TEMPERATURE.					
			Mean barometric height at station reduced to 32°.	Mean reduced to sea-level and constant gravity, lat. 45°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.
ORISSA.	Puri	Puri	30°019	29°074	—	NE	178	86°7	5th Nov.	71°1	11th Nov.	83°1	72°1	77°1
		Gopalpore	30°022	29°083	+°050	NNW	257	84°7	5th	70°1	5, 7	80°0	70°7	75°6
		False Point	30°029	29°092	+°050	NEly	192	84°9	5th	67°0	6th	81°5	71°2	76°3
	Outtack	Outtack	29°068	29°088	+°057	NNE	93	86°3	5th	68°3	11th	82°1	70°7	76°4
SOUTH-WEST BENGAL.	Balasore	Balasore	30°006	30°010	+°048	ENE	82	84°4	5th	64°7	11th	80°7	68°0	74°4
	Midnapore	Midnapore	29°031	30°031	+°070	N	59	84°3	5th	65°2	6th	80°4	67°6	74°1
	24-Parganas	Calcutta	30°045	30°012	+°072	NNE	38	86°6	5th	66°7	11th	80°1	69°1	74°6
		Saugor Island	30°040	30°010	+°074	NE, NNE	195	83°2	9th	67°0	11th	80°6	69°8	75°2
SOUTH-WEST BENGAL.	Howrah	Howrah	30°018	30°015	+°082	NWly	70	83°8	5, 6	65°7	7th	79°8	68°1	74°0
	Nadia	Krishnagar	30°034	30°016	+°079	Calm & NE	40	85°1	5th	67°0	11th	81°5	69°2	75°3
	Khulna	Jessore	30°034	30°016	+°079	NNE, NW	42	85°1	5th	67°2	6, 8	79°6	68°8	74°2
	Burdwan	Burdwan Raniganj	29°748	30°044	+°091	NW	34	85°1	5th	65°0	11th	80°9	69°9	74°2
NORTH BENGAL.	Bankura	Bankura	29°766	30°026	+°088	Calm	36	85°1	5th	65°7	11th	81°5	68°1	74°8
	Murshidabad	Berhampore	30°004	30°021	+°070	NW	50	84°6	5th	68°2	6, 11	80°1	69°2	74°7
	Pabna	Sirajganj	30°011	30°008	+°070	Calm	21	84°7	5th	63°8	7th	80°3	67°0	73°6
	Bogra	Bogra	29°909	30°014	+°117	NE	37	85°2	5th	64°7	5th	80°7	69°0	73°4
NORTH BENGAL.	Rajshahi	Rampur Baula	29°086	30°007	+°077	NNE	98	85°1	5th	65°2	11th	80°6	67°2	73°9
	Malda	Malda	29°980	30°024	—	NW	71	85°1	5th	64°5	11th	80°3	66°4	73°4
	Dinajpur	Dinajpur	29°944	30°026	+°083	NE	32	84°6	5th	61°8	11th	80°4	66°0	73°2
	Rangpur	Rangpur	29°945	30°026	+°075	NEly	45	84°8	5th	61°7	11th	80°4	64°5	72°5
EAST BENGAL.	Jalpaiguri	Jalpaiguri	29°802	30°040	+°103	Nly	28	84°4	5th	59°6	10, 11	81°0	63°2	71°6
	Kuoh Bihar	Darjeeling	23°119	—	+°069	NE	85	58°1	11th	41°2	6, 7	56°2*	43°2	49°7*
	Darjeeling	Gnatong	19°011	—	—	SE	61	45°9	6th	21°6	10, 11	43°3	26°2	34°9
	Sikkim	Chittagong	29°057	29°083	+°068	NE	51	86°7	5, 10	63°1	7, 3	84°9	70°7	77°8
EAST BENGAL.	Chittagong Hill Tracts	Demagiri	30°021	29°079	+°070	Calm	49	85°8	6th Nov.	68°7	7, 11	83°7	70°4	77°1
	Hackergrunge	Harisal	29°092	29°082	+°069	NNE	114	86°5	5th	68°8	5, 7, 8	82°5	63°9	76°3
	Noakhali	Noakhali	30°020	30°016	+°084	Calm	17	84°5	5th	66°9	6, 7	78°9	66°7	73°8
	Faridpur	Faridpur	30°026	29°063	+°067	NW	68	87°6	5th	66°7	7th	82°0	69°3	75°7
NORTH BENGAL.	Dacca	Dacca	30°000	29°063	+°067	N	23	86°0	5th	67°8	8th	83°3	70°0	76°7
	Tippera	Comilla	29°986	29°098	+°068	Calm	40	84°2	5th	66°6	7th	80°4	67°7	74°1
	Mymensingh	Mymensingh	29°042	30°082	+°079	Calm	8	82°2	5 to 7	64°3	10th	79°7	66°0	72°8
	Purnea	Purnea	29°008	30°025	+°071	Calm	9	81°7	5th	63°5	10, 11	81°0	65°1	73°0
NORTH BENGAL.	Bhagalpur	Bhagalpur	29°015	30°041	+°071	NW	49	83°9	5, 6	65°2	7th	80°4	66°8	73°6
	Darbhanga	Darbhanga	29°012	30°060	—	WNW	53	82°7	5, 6	63°3	6, 10, 11	79°7	64°7	72°3
	Muzaffarpur	Muzaffarpur	29°846	30°086	+°037	Wly	74	83°7	5th	68°9	7th	80°4	61°5	71°0
	Champaran	Madhubani	29°015	30°066	+°110	Variable	59	84°8	6th	63°6	9th	80°6	65°5†	72°5†
SOUTH BENGAL.	Baran	Chapra	29°765	30°082	+°115	SSW	98	83°8	6th	61°5	6th	80°7	63°6	72°3
	Shahabad	Buxar	29°853	30°056	+°085	Variable	41	84°1	5 to 7	62°0	6, 9	80°4	65°0	72°7
	Gaya	Arrah	29°895	30°043	+°098	Variable	20	85°3	5th	63°0	7, 10, 11	81°3	64°7	73°0
	Patna	Gaya	29°719	30°061	+°094	Wly	130	85°4	6th	62°2	10th	81°6	65°0	73°3
CHOTA NAGPUR.	Mouhry	Bankipore	29°004	30°045	+°070	NEly & Wly	45	84°0	5th	63°8	10, 11	80°6	66°3	73°5
	Sonthal Parganas	Naya Dumka	29°673	30°037	+°083	NWly	33†	84°6	5th	63°5	11th	80°4	65°5	73°0
	Hazaribagh	Hazaribagh	28°035	30°045	+°067	NE	113	79°2	11th	59°2	9, 10	75°5	60°8	68°2
	Lohardaga	Ranchi	27°897	30°025	+°059	Calm & Nly	114	78°0	11th	60°0	7, 9	74°4	61°1	67°8
ASAM.	Palamau	Daltonganj	29°294	30°000	—	NEly	44	83°4	5, 6	62°0	7th	77°9	64°3	71°1
	Singbhum	Chalabassa	29°285	30°016	+°074	Calm	3	83°5	5th	63°4	11th	79°9	66°2	73°1
	Sibsagar	Sibsagar	29°797	30°039	+°103	Ely	—	80°6	5th	61°3	5, 7	78°1	63°5	70°8
	Goalpara	Dhubri	29°065	30°028	+°067	NE, ENE	146	83°1	11th	63°4	5th	78°3	65°5	72°1*
ASAM.	Cachar	Silchar	29°055	30°013	+°080	Calm	—	80°5	5th	65°3	7th	84°0	68°8	76°4

\* Means for six days. † Means for five days.  
Explanation.—Summary.—The normal means of air pressure and temperature are the arithmetical average or means of the readings during the same period. The humidity of the atmosphere is expressed at percentage, saturated air being presented by 100. A clear sky is denoted by 0 and an overcast sky by 01. rainfall the normal mean are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional station districts, &c. from total rainfall at the subdivisional stations in the district sending in returns divided by the number of stations. A rainy day is one of

for the week ending Saturday, the 11th of November 1893.

DISTRICT OBSERVATIONS.															DISTRICT.
Variation from normal mean.	Mean 8 A.M. temperature.	Average humidity at 8 A.M.	Average cloud amount at 8 A.M.	Rainfall of week at observing station.	OF WEEK.				RAINFALL.						
					Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Since 1st of month.			Since 16th October 1893.			
									Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.	
—	74.0	81	8.8	0.14	0.40	0.28	1.00	0.92	0.40	1.68	—1.28		5.87		Puri.
—1.7	72.9	88	6.3	3.93											
+0.3	75.6	84	8.7	0.73											
—1.4	74.7	71	8.6	Nil		0.23		0.61		0.71			3.71		Outlack.
—0.4	71.8	90	4.7	0.07		0.35		0.48		0.74			2.76		Balasore.
+0.1	72.2	52	5.9	0.09	0.03	0.08	0.00	0.17	0.03	0.31	—0.28	3.32	3.30	+0.02	Midnapore.
—0.5	72.9	82	6.3	0.03	0.02	0.17	0.00	0.31	0.02	0.42	—0.40	2.44	3.18	—0.74	24-Parganna.
—1.4	73.2	89	8.7	0.04											
					0.02	0.15	0.00	0.23	0.02	0.33	—0.31	2.38	2.09	+0.29		Howrah.
—0.8	72.3	85	7.6	0.28	0.25	0.23	1.00	0.20	0.25	0.31	—0.00	1.47	2.08	—0.61	Kooghly.
—0.9	73.4	91	7.3	0.04	0.04	0.19	0.33	0.54	0.04	0.42	—0.38	2.19	3.00	—0.81	Nadia.
—1.4	71.6	82	8.7	0.18	0.12	0.08	0.20	0.20	0.12	0.31	—0.19	0.95	2.51	—1.56	Khulna.
—	70.6	89	3.9	0.02	0.06	0.09	0.25	0.12	0.06	0.27	—0.21	2.05	2.07	—0.02	Jessore.
—0.4	70.8	82	8.0	0.18	0.06	0.07	0.25	0.15	0.08	0.25	—0.19	2.20	1.97	+0.23	Burdwan.
—	70.6	89	3.9	0.02	0.11	0.00	0.30	0.18	Nil	0.18	—0.18	1.76	2.90	—0.24	
—1.1	70.4	94	8.6	Nil	Nil	0.17	0.00	0.26	Nil	0.23	—0.23	1.83	2.13	—0.30		Bankura.
+0.1	70.5	94	8.6	0.16	0.20	0.18	0.50	0.28	0.20	0.29	—0.00	3.17	2.51	+0.66	Birbhum.
0	70.8	88	4.4	Nil	Nil	0.23	0.00	0.10	Nil	0.31	—0.31	4.01	1.93	+2.08	Murshidabad.
+2.0	71.9	87	6.9	Nil	Nil	0.12	0.00	0.26	Nil	0.18	—0.18	2.73	1.71	+1.02	Fabna.
—	70.7	87	4.4	Nil	Nil	0.18	0.00	0.17	Nil	0.21	—0.21	3.13	1.48	+1.65	Bogra.
+0.8	69.9	87	5.0	Nil	Nil	0.04	0.00	0.09	Nil	0.03	—0.03	2.81	1.34	+1.47	Rajshahi.
+0.4	69.7	87	3.1	Nil	Nil	0.08	0.00	0.06	Nil	0.03	—0.03	1.70	2.08	—0.29	Malda.
—0.5	68.9	80	5.9	Nil	Nil	0.08	0.00	0.05	Nil	0.10	—0.10	2.70	2.99	—0.29	Dinajpur.
+0.4	48.9	73	6.6	0.17	Nil	Nil	0.00	0.00	Nil	0.06	—0.06	2.66	1.73	+1.86	Rangpur.
—	36.4	88	3.1	0.86	0.05	0.02	0.25	0.05	0.05	0.08	—0.03	4.74	2.48	+2.26	Chittagong Hill Tracts.
+1.6	74.0	88	8.0	Nil	Nil	0.45	0.00	0.60	Nil	1.44	—1.44	5.76	4.18	+1.58	Backergunge.
					Nil	0.77	0.00	0.70	Nil	1.70	—1.70	5.31	3.60	+1.03	Noakhali.
+1.2	74.3	87	6.9	Nil	Nil	0.26	0.00	0.41	Nil	1.18	—1.18	5.28	2.67	+2.71	Faridpur.
+0.7	74.7	91	2.7	0.05	0.02	0.68	0.00	0.43	0.02	2.03	—2.01	3.70	2.67	+0.60	Dacca.
—0.6	71.7	93	6.3	0.09	0.14	0.13	0.33	0.19	0.14	0.33	—0.19	1.67	2.28	—0.61	Tippura.
—1.4	72.7	89	7.7	0.06	0.06	0.10	0.25	0.15	0.06	0.46	—0.40	3.00	2.40	+1.60	Mymensingh.
+1.1	74.1	90	6.7	0.02	Nil	0.17	0.00	0.35	Nil	0.50	—0.50	3.08	2.06	+1.02	Purnea.
—0.2	71.2	90	6.6	0.23	0.16	0.12	0.00	0.17	0.16	0.24	—0.08	3.72	2.06	+1.66	Bhagalpur.
+0.4	68.7	94	2.9	0.02	0.01	0.04	0.00	0.07	0.01	0.07	—0.06	2.67	1.55	+1.12	Darbhanga.
+1.3	71.7	80	6.1	0.3	0.02	0.07	0.00	0.08	0.02	0.08	—0.06	2.51	1.37	+1.14	Muzaffarpur.
0	69.7	88	4.0	0.04	0.06	0.02	0.00	0.05	0.06	0.04	+0.02	5.95	0.96	+4.99	Champanan.
—	69.2	90	4.1	0.16	0.07	0.04	0.33	0.09	0.07	0.06	+0.01	7.71	1.11	+6.60	Saran.
+1.0	67.8	88	2.9	0.06	0.05	Nil	0.00	0.00	0.03	0.03	+0.03	8.00	0.43	+7.57	Shahabad.
+1.0	70.7	83	5.4	0.38	0.20	0.03	1.00	0.08	0.29	0.03	+0.26	5.84	0.84	+5.00	
—0.4	71.5	86	3.0	0.77											
—0.2	69.5	81	5.0	0.42	0.44	0.10	1.40	0.06	0.44	0.11	+0.33	5.76	1.16	+4.60	
+1.1	69.4	85	4.3	0.23											
—0.2	69.9	82	5.0	0.03	0.04	0.14	0.25	0.09	0.04	0.15	—0.11	2.50	0.91	+1.59	Gaya.
—0.1	71.2	79	6.9	0.07	0.08	0.09	0.25	0.05	0.06	0.10	—0.04	4.38	1.28	+3.10	Patna.
					Nil	0.10	0.00	0.12	Nil	0.10	—0.10	1.71	1.43	+0.28	Monkhyr.
+1.1	70.1	81	4.9	Nil	Nil	0.18	0.00	0.18	Nil	0.13	—0.13	2.43	1.65	+1.78	Sonthal Parganna.
—1.5	65.7	80	9.0	0.07		0.12		0.28		0.21			1.28		Hazaribagh.
—0.3	65.1	82	6.0	0.12	0.14	0.04	0.00	0.13	0.14	0.10	—0.02	3.36	1.37	+1.99	Lohardaga.
—	69.9	79	8.7	0.25		0.11		0.25		0.35			1.26		Palamanu.
—0.3	69.0	86	9.0	0.11	0.11	0.18	0.00	0.30	0.11	0.25	—0.14	0.87	2.07	—2.20	Singbhum.
—1.0	66.0	89	3.4	0.14	Nil	0.10	0.00	0.19	Nil	0.16	—0.16	1.94	1.45	+0.49	Maubhum.
—1.3	69.1	89	6.0	Nil											
+0.3	72.1	91	9.0	0.98											

for the last ten years. The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater. The numbers denoting cloud amount represents the part of the sky covered the whole sky being denoted by 10. Under the head District observations of for the period in question during the past ten years. The means of the district are the numerical average of the rainfall returned received in the which at least a tenth of an inch fell









**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSER-  
VATIONS TAKEN IN ASSAM, FOR THE WEEK ENDING 8 A.M.,  
SATURDAY, THE 11TH OF NOVEMBER 1893.**

At the close of the previous week fine settled weather obtained over the whole of Bengal, while in the south of the Bay conditions were decidedly disturbed. The disturbance over this area had been becoming more pronounced, and it also probably extended over a large area, for on the last day of the week cloud proportion was increasing in Orissa and Lower Bengal. On the 5th, or the first day of the week under review, a brisk fall of pressure occurred in the south-west of the Bay, and a very distinct barometric depression was formed, the centre of which was lying off the South Madras Coast. Conditions having thus become more seriously disturbed over the Bay, weather in Bengal also became a little more unsettled, and the sky clouded over rapidly at the southern stations. From the 5th to the 6th the small storm advanced in a westerly or north-westerly direction and struck the Madras coast a little to the south of Madras shortly before 8 A.M. on the 6th. The barometric depression at the centre was considerable, and the storm, though small, was accompanied by a severe gale of wind, very high sea and heavy rain, and at 8 A.M. the wind velocity registered at Madras equalled no less than 68 miles an hour. The small storm apparently broke up as a separate storm on striking the coast, but the disturbed conditions due to its disintegration steadily and rather rapidly spread northwards. A moderate wave of humid monsoon winds advanced along the west coast of the Bay and gave heavily clouded skies with rain at first in Orissa and over the southern parts of Bengal from the 6th to the 8th and 9th, and then as the moist winds again advanced northwards over the province, rainfall extended to Chota Nagpur and Bihar, the rain being reported over the last district, principally on the 9th instant. As the wave of humid winds advanced up the west coast of the Bay, it did not penetrate to any great extent over either East or North Bengal, which districts therefore received very little rain. This advance of humid winds was only temporary and was soon overcome by the superior force of the winds from Upper India, and at the close of the week it was again being driven back towards the Bay by the dry north-westerly and northerly current from Northern India. Thus on the 11th, or the last day of the week, the rainfall over the province had ceased. Skies had also become cloudless in Bihar and North Bengal, while light cloud prevailed over the remainder of the Province except in Orissa, where the sky was still heavily clouded, and hence north-east monsoon conditions were again rapidly setting in over the Province.

Conditions in Bengal therefore during a large part of the week have been very abnormal, and for the greater part of the time the sky was heavily clouded, the air was unusually damp, the day temperatures were comparatively low and the night temperatures high, and rain was received in most districts on one or two days.

*Pressure* at the commencement of the week was largely in excess of the normal, the excess usually ranging from 0.1 inch to 0.13 inch. On the 5th a further slight increase of pressure took place, which was continued on the 6th in the southern districts, though a fall began over the northern half of the Province. From the 7th to the 9th inclusive pressure fell tolerably steadily in connection with the advance of the disturbed conditions over Bengal, but on the 9th pressure was still in excess by amounts ranging from about 0.02 inch in the eastern districts to nearly a tenth of an inch in the west of Bihar. On the 10th and 11th pressure was rising, and hence the mean pressure for the week has been in excess of the normal in all districts, the usual excess equalling about 0.07 inch to 0.11 inch, the excess being largest over parts of Bihar. In Assam the mean excess has equalled 0.08 inch.

*Temperature*—For the week slight excess mean temperatures have been registered in East and North Bengal and in Bihar, while slight defects have been registered in Orissa, South-West Bengal and Chota Nagpur. In no case, however, does the variation from the normal equal as much as a degree. For the whole Province the average mean temperature has been almost absolutely normal. In Assam the average mean temperature for the week has been 0.7° below the normal.

*Rainfall*.—The falls during the week have been small. The average amounts in Orissa and in North and South Bihar have only equalled from 0.1 inch to 0.15 inch, those in South-West and East Bengal and Chota Nagpur have been a little more than a twentieth of an inch, while in North Bengal rainfall has been almost absent. In all divisions except Bihar the falls have been below the normal, but in this division a slight excess has been registered.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 11th of November 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.							RAINFALL.									
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.		Since 16th Oct. 1893.		
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.	
Orissa	86.7	64.7	81.4	70.5	76.0	-0.8	0.14	0.37	-0.23	0.47	3.20	-1.73	0.14	0.27	5.42	3.64	
South-West Bengal	86.6	65.3	80.6	68.7	74.6	-0.8	0.06	0.15	-0.07	0.20	3.00	-2.80	0.00	0.30	2.04	2.37	
North Bengal	85.2	59.6	80.5	66.6	73.1	+0.6	0.02	0.10	-0.08	0.04	0.50	-0.52	0.02	0.74	2.32	1.82	
East Bengal	87.0	65.8	82.2	69.5	75.0	+0.3	0.05	0.24	-0.19	0.20	3.48	-3.28	0.05	0.78	4.13	2.87	
North Bihar	84.9	59.9	80.3	64.9	72.5	+0.7	0.13	0.04	+0.09	0.22	0.11	+0.11	0.13	0.06	5.21	1.06	
South Bihar	85.4	61.5	80.8	65.0	72.9	+0.2	0.12	0.11	+0.01	0.41	0.08	-0.27	0.12	0.12	3.46	1.24	
Chota Naxpur	83.5	59.2	70.6	63.7	68.7	-0.7	0.07	0.10	-0.03	0.22	3.27	-2.05	0.07	0.20	3.21	1.23	
Assam	80.5	61.4	70.1	65.0	73.1	-0.7											

\* Daltonganj and Raniganj not included.

METEOROLOGICAL OFFICE, BENGAL, C. LITTLE,  
The 14th November 1893. Offg. Meteorological Reporter to the Govt. of Bengal.

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 5th to 11th November 1893.

MONTH.	Date.	Pressure at 10' A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.					HYGROMETRY.				Rainfall, past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
November ...	5th ...	30.080	77.4	84.9	15.1	69.8	80.4	71.6	.658	60.8	63	...
" ...	6th ...	106	73.9	78.9	10.0	68.9	74.4	69.6	.660	60.9	78	0.05
" ...	7th ...	.072	75.6	82.7	14.3	68.4	78.1	70.1	.680	65.6	65	...
" ...	8th ...	.058	75.8	81.7	11.9	69.8	79.6	72.6	.708	68.9	70	...
" ...	9th ...	.053	74.4	77.9	7.0	70.9	74.8	72.1	.753	70.7	87	...
" ...	10th ...	.063	74.9	79.9	10.1	69.8	74.4	69.6	.660	60.9	78	...
" ...	11th ...	.062	75.2	83.4	16.5	66.9	79.8	72.6	.705	68.8	69	...

The mean 10 A.M. pressure of the seven days ... .. 30.071  
The mean temperature of the seven days ... .. 75.3  
The extreme variation of temperature ... .. 18.0  
The maximum temperature ... .. 84.9  
The mean 10 A.M. relative humidity of the seven days ... .. 73  
The total fall of rain from 5th to 11th November 1893 ... .. 0.05  
The daily mean temperatures are the crude means of maximum and minimum temperatures.

METEOROLOGICAL OFFICE, INDIA, C. LITTLE,  
The 13th November 1893. For Meteorological Reporter to the Govt. of India.

**Results of the Meteorological Observations taken at the Alipore Observatory from  
5th to 11th November 1893.**

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
		°		Inches.	°	°	°	°	°	Inches	°	%			Inches.	
Nov.	5th	142.8	1.8	29.959	74.8	82.2	12.8	69.4	71.1	0.710	69.0	82	ENE and calm ...	32	0.01	Chiefly cloudy, o, g, d, <b>P.</b>
"	6th	101.7	Nil	30.023	72.1	79.7	8.2	68.5	69.5	.675	67.5	83	NNE and calm ...	37	0.02	Cloudy, o, g, d.
"	7th	141.5	5.8	.000	71.6	80.9	12.5	68.4	70.5	.693	68.3	82	NNE and calm ...	54	Nil	Partially cloudy, o, <b>P.</b>
"	8th	137.0	2.8	29.982	75.2	80.1	10.0	70.1	71.9	.739	70.2	85	N by E, NNW and calm.	47	"	Chiefly cloudy, o, <b>P.</b>
"	9th	109.8	Nil	.979	74.3	76.8	6.0	70.8	71.9	.750	70.6	89	N by W, N and calm.	44	"	Cloudy, o, g.
"	10th	109.3	"	.998	73.5	77.7	7.8	69.9	70.4	.708	68.9	86	N, NNE and calm	45	Not measurable.	Cloudy o, g, d.
"	11th	132.3	6.4	30.018	74.1	81.8	15.0	66.8	69.9	.676	67.6	80	NNE and calm ...	33	Nil	Partially cloudy, <b>P.</b>

The mean pressure of the seven days ...	Inches.	29.994
The average pressure of the corresponding period for 24 years, Surveyor-General's Office ...		29.935
The total number of hours of bright sunshine ...	Hours.	16.8
The maximum possible number of hours of sunshine ...		77.9
The mean temperature of the seven days ...		74.2
The average temperature of the corresponding period for 24 years, Surveyor-General's Office ...		77.1
The extreme variation of temperature ...		15.4
The maximum temperature ...		82.2
The highest velocity of the wind in one hour ...	Miles.	9
The highest pressure of wind on one square foot ...	lbs.	?
The mean relative humidity ...	%	81
The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office ...		74
The total fall of rain from 5th to 11th November 1893 ...	Inches.	0.03
The average fall of the corresponding period for 24 years, Surveyor-General's Office ...		0.39
The total fall from 1st January to 11th November 1893 ...		85.23
The average fall of the corresponding period for 24 years, Surveyor-General's Office ...		65.09

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o, overcast; g, gloomy; d, drizzling rain; **P.**, dew.

CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 4th November 1893, as compared with the corresponding week of the previous year.*

. NATURE OF CARGO.			WEEK ENDING SATURDAY, THE 4TH NOVEMBER 1893.			WEEK ENDING SATURDAY, THE 5TH NOVEMBER 1892.		
			Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
			No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy	...	...	452	36,190	462	82	28,825	450
Jute	...	...	349	1,69,300	2,920	336	1,15,140	1,937
Firewood	...	...	140	99,125	1,488	104	54,375	851
Other articles	...	...	927	1,97,110	3,032	910	1,92,880	2,880
Total	...	...	1,868	5,01,725	7,902	1,432	3,91,220	6,118

CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 11th November 1893, as compared with the corresponding week of the previous year.*

NATURE OF CARGO.			WEEK ENDING SATURDAY, THE 11TH NOVEMBER 1893.			WEEK ENDING SATURDAY, THE 12TH NOVEMBER 1892.		
			Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
			No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy	...	...	296	31,082	330	99	29,635	469
Jute	...	...	296	1,47,335	2,514	529	2,01,400	3,596
Firewood	...	...	127	71,175	1,056	119	69,300	877
Other articles	...	...	985	2,11,705	3,238	1,141	2,10,760	3,184
Total	...	...	1,704	4,61,347	7,138	1,888	5,03,885	8,126

# EAST INDIAN RAILWAY.

Statement of Goods Traffic in Staples carried during the four weeks ending 23rd September 1893, as compared with the same period of 1892.

STAPLES.	1892.		1893.		INCREASE.		DECREASE.	
	Weight.	Freight.	Weight.	Freight.	Weight.	Freight.	Weight.	Freight.
	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.
Cotton, raw	25,275	20,205	16,581	14,718	...	...	8,694	5,487
Cotton twist and yarn—								
1.—European	9,849	7,644	8,946	7,637	...	...	837	7
2.—Indian	19,767	11,215	28,382	15,585	8,625	4,370	...	...
Cotton piece-goods—								
1.—European	1,20,007	1,34,170	1,23,035	1,27,464	3,028	...	...	6,708
2.—Indian	16,066	13,066	12,710	8,379	...	...	2,356	4,687
Drugs and chemicals—								
1.—Intoxicating other than opium	326	157	638	621	312	464	...	431
2.—Non-intoxicating	9,965	8,501	9,241	8,070	...	...	715	...
Dyes and tans—								
1.—Indigo	4,351	1,324	9,006	2,920	4,655	1,596	...	...
2.—Myrabolams	4,819	1,509	5,378	1,750	559	101	...	...
3.—Aniline dyes	112	110	191	184	40	74	...	...
4.—Cutch	2,022	861	1,615	638	...	...	407	203
5.—Paints and colours	7,121	2,745	4,911	1,661	...	...	2,210	1,082
6.—Others	1,977	1,644	480	265	...	...	1,497	1,370
Grains—								
1.—Wheat	3,43,329	1,21,428	2,16,927	88,910	...	...	1,26,009	32,518
2.—Rice	3,74,391	57,232	5,09,012	83,582	1,32,611	20,350	...	...
3.—Jawar and bajra	5,860	1,139	7,320	1,245	2,000	...	...	143
4.—Gram	1,55,300	65,854	1,17,330	46,045	...	...	38,070	19,789
5.—Indigo seed	36,140	11,434	16,249	6,094	...	...	20,891	4,835
6.—Seeds other than oil-seeds	33,341	10,300	33,287	12,055	...	1,225	54	...
7.—Others	3,69,066	1,10,226	4,11,706	1,10,810	42,730	654	...	...
Hides and skins—								
1.—Hides of cattle	14,823	6,873	11,992	5,805	...	...	2,831	1,008
2.—Skins of sheep, &c.	16,284	8,150	10,334	3,404	...	...	5,950	4,646
Horns	2,009	1,083	1,242	1,004	...	...	767	79
Jute—								
1.—Raw	28,099	6,884	51,531	15,569	23,436	8,081	...	...
2.—Gunny bags and cloth	72,404	37,771	58,449	30,673	...	...	14,015	7,098
Lao—								
1.—Stick	20,345	7,173	19,863	7,476	...	803	482	...
2.—Shell-lac	17,537	13,383	15,915	10,774	...	...	2,619	2,559
Leather—								
1.—Unmanufactured	1,520	2,830	2,497	4,190	971	1,360	...	...
2.—Manufactured	6,757	7,038	4,323	5,328	...	...	1,834	3,310
Liquors—								
1.—Beer	6,312	3,639	7,446	4,098	1,134	439	...	...
2.—Wines	2,873	3,029	1,645	2,649	...	...	1,178	971
3.—Spirits	1,775	2,738	1,713	2,001	...	...	62	947
Metals—								
1.—Copper, unwrought	6,883	8,511	8,324	9,995	1,441	1,304	...	...
2.—Brass, unwrought	4,438	2,423	4,307	4,223	440	1,800	...	...
3.—Brass and copper, wrought	15,929	7,421	14,804	7,261	...	...	1,125	100
4.—Iron	2,16,863	84,745	1,03,450	85,476	...	731	23,404	...
5.—Tin	4,319	3,950	3,966	3,684	...	...	333	206
6.—Others	10,609	7,353	10,315	7,451	...	98	204	...
Oils—								
1.—Castor	3,672	1,047	2,921	906	...	...	743	141
2.—Kerosine	1,03,914	49,155	1,07,131	50,200	3,620	645	...	...
3.—Others	16,707	9,476	11,149	4,327	...	...	4,558	5,249
Oil-seeds—								
1.—Linseed	1,82,700	50,919	1,93,378	60,837	12,678	978	...	...
2.—Rape and mustard	1,09,681	29,820	1,35,875	34,600	26,194	4,840	...	...
3.—Til or jujili	1,921	537	2,823	760	902	223	...	...
4.—Castor	62,096	16,696	72,764	14,551	10,666	...	...	2,145
5.—Poppy	28,114	8,435	40,423	14,244	21,925	5,800	...	...
6.—Others	13,555	3,545	22,599	5,945	9,044	2,438	...	...
Opium	3,191	6,421	4,401	8,411	...	...	...	...
Paper and pasteboard	7,835	4,768	13,364	7,863	5,528	3,105	2,780	4,901
Provisions—								
1.—Ghee	26,664	17,050	27,375	19,760	1,314	2,310	...	...
2.—Dried fruits and nuts	26,746	16,325	12,161	8,840	...	...	14,585	7,335
3.—Coconuts	13,874	4,364	8,646	3,001	...	...	5,228	703
4.—Turmeric	6,653	3,511	8,093	3,010	1,450	2,331	...	...
5.—Others	71,659	30,176	53,886	23,148	...	...	17,664	7,023
Salt	4,42,078	85,258	4,37,595	69,128	...	...	5,083	16,130
Salt-petre, &c.—								
1.—Salt-petre	43,392	19,201	25,883	10,806	...	...	17,509	8,905
2.—Borax	1,491	949	1,347	65	...	...	144	284
3.—Other saline substances	20,795	5,012	25,925	7,433	4,230	2,421	...	...
Silk, raw—								
1.—Foreign	...	...	...	...	...	...	...	...
2.—Indian	1,441	1,126	1,015	450	...	...	429	676
Silk piece-goods—								
1.—Foreign	25	70	12	35	...	...	13	35
2.—Indian	279	304	395	419	119	25	...	...
Spices—								
1.—Pepper	2,614	3,204	2,473	2,988	61	...	...	916
2.—Other	8,631	4,066	7,660	6,111	...	2,055	1,031	...
Sugar—								
1.—Drained	20,416	10,110	21,515	11,919	1,099	1,809	...	...
2.—Undrained	1,19,769	19,112	1,48,412	22,806	28,703	10,784	...	...
Stone and lime	3,20,432	30,784	3,50,865	49,573	21,433	12,788	...	...
Tea—								
1.—Foreign	...	...	...	...	...	...	...	...
2.—Indian	1,877	1,851	3,702	3,790	1,825	1,939	...	...
Timber, &c.—								
1.—Timber	48,085	10,161	40,918	13,804	1,863	2,053	...	...
2.—Firewood	13,730	493	9,969	875	...	342	3,761	...
Tobacco	28,341	11,504	29,959	12,832	1,025	1,328	...	...
Umbrellas	466	392	211	163	...	...	242	229
Wool—								
1.—Raw	793	568	560	554	...	...	233	12
2.—Piece-goods—								
a.—European	686	1,340	739	1,728	45	388	...	...
b.—Indian	2,728	3,038	2,601	4,081	...	1,043	67	...
3.—Shawls	...	...	...	...	...	...	...	...
All other articles of merchandise	8,19,880	1,42,735	3,25,613	1,43,184	3,793	449	...	...
Military stores	40,75,159	14,16,463	41,29,903	13,76,703	47,745	...	...	40,790
Coal—								
1.—For public	36,00,102	5,10,768	39,95,439	5,01,540	8,45,537	80,781	...	2,674
2.—Railway	5,40,921	60,245	6,43,940	79,673	1,02,119	18,428	...	...
Railway Materials—								
1.—For construction and revenue	8,89,397	40,746	9,02,418	32,200	1,03,021	...	...	8,546
Live-stock	...	8,715	...	7,996	...	...	...	719
Total	91,74,736	20,71,322	97,70,350	21,17,732	5,93,614	40,480	...	...

T. SIMPSON, Assistant Auditor.

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 4th November 1893, on 1,610½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	*280,636	Rs. A. P. 3,21,041 0 0	Mds. S. 25,97,338 20	Rs. A. P. 6,41,030 4 0	Rs. A. P. 15,450 3 0	Rs. A. P. 0,80,581 7 0	75,551	102,067	178,518
Or per mile of railway ...	.....	199 5 6	.....	399 14 11	9 9 6	608 13 11	.....	.....	.....
For previous 17½ weeks of half-year ...	4,892,200	51,40,806 6 0	4,04,56,937 10	88,34,595 5 0	2,56,292 11 0	1,42,31,693 0 0	1,310,405½	1,668,368½	2,978,773½
Total for 18½ weeks ...	5,152,845	54,61,816 6 0	4,30,54,275 30	94,78,985 9 0	2,71,742 14 0	1,52,12,274 13 0	1,385,956½	1,771,335½	3,157,291½
COMPARISON.									
Total for corresponding week of previous year ...	326,408	3,81,090 0 5	26,39,111 20	6,05,673 14 5	19,181 4 0	10,04,815 9 7	78,189	95,760	173,949
Per mile of railway corresponding week of previous year ...	.....	230 10 1	.....	376 0 3	11 4 7	623 14 11	.....	.....	.....
Total for corresponding 18½ weeks of previous year ...	4,744,102½	48,47,771 5 10	4,16,02,204 30	91,72,078 3 0	2,94,823 8 3	1,43,51,672 1 1	1,369,380	1,672,944	3,033,333

\* The coaching traffic shows a decrease as compared with the corresponding period of 1892, during which period there was an eclipse of the moon and the fair at Sonapur.

## TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 4th November 1893, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	18,624	Rs. A. P. 4,756 10 0	Mds. S. 9,193 0	Rs. A. P. 350 5 0	Rs. A. P. 18 0 0	Rs. A. P. 5,11½ 15 0	871	75	946
Or per mile of railway ...	.....	213 12 6	.....	15 11 11	0 12 11	230 5 4	.....	.....	.....
For previous 17½ weeks of half-year ...	*207,792	72,698 8 0*	1,51,220 100	4,775 13 0†	392 0 0‡	77,806 5 0	15,357	1,227½	16,684½
Total for 18½ weeks ...	316,416	77,455 2 0	1,60,413 100	5,125 2 0	410 0 0	82,691 4 0	16,224	1,402½	17,630½
COMPARISON.									
Total for corresponding week of previous year ...	19,787	5,164 9 3	9,172 0	441 8 0	0 4 0	5,615 5 3	886	82	968
Per mile of railway corresponding week of previous year ...	.....	232 1 10	.....	19 15 8	0 4 6	252 6 0	.....	.....	.....
Total for corresponding 18½ weeks of previous year ...	343,363	81,377 5 11	1,20,664 30	5,169 11 0	228 4 0§	86,775 4 11	16,541	1,220	17,761

\* Deducted number of passengers 1,292 and Rs. 487

† Deducted mounds 6 and

‡ Ditto

§ Added Rs. 57-1-13 on account of supplemental return for 30th September 1892.

on account of difference between the approximate and audited figures for the weeks ended 16th and 23rd September 1893.

## DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for week ended 4th November 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	A17,132	Rs. A. P. A10,311 4 0	Mds. S. 53,525 20	Rs. A. P. 9,079 4 0	Rs. A. P. 45 0 0	Rs. A. P. 25,435 8 0	6,582	3,004	9,586
Or per mile of railway ...	.....	101 1 0	.....	56 4 1	0 4 5	167 9 6	.....	.....	.....
For previous 17½ weeks of half-year ...	637,224	62,41,141 4 0	510,12,487 10	61,20,207 9 0	638 0 0	3,70,980 13 0	106,188	48,905½	155,093½
Total for 18½ weeks ...	354,356	2,67,452 8 0	10,73,012 30	1,38,286 13 0	683 0 0	3,96,422 5 0	112,770	51,909½	164,679½
COMPARISON.									
Total for corresponding week of previous year ...	20,781½	18,447 4 1	52,397 20	10,713 15 0	88 0 3	29,249 3 4	6,907	2,455	9,412
Per mile of railway corresponding week of previous year ...	.....	114 4 9	.....	66 6 1	0 8 0	181 3 7	.....	.....	.....
Total for corresponding 18½ weeks of previous year ...	379,920*	2,34,431 7 5*	6,91,465 10†	1,21,257 9 0†	1,911 0 0‡	3,60,600 6 11	118,746	44,180	162,935

A The decrease is due to figures for the corresponding period of 1892 having included traffic on account of eclipse and running of a special train.

\* Added number of passengers 695 and deducted Rs. 34

† Deducted mounds 8,180 and added

‡ Added " 1,973 on account of difference between the approximate and audited figures for the weeks ended 16th and 23rd September 1893.

§ Added number of passengers 171 and

¶ Do. mounds 95-30 and

Do.

on account of supplemental return for 30th September 1892.

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K. D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for the week ended 4th November 1893, on 778 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.*	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	162,370	86,310 0 0	9,79,610 0	2,24,970 0 0	18,230 0 0	3,29,570 0 0	27,000	47,987	74,987
Or per mile of railway ...	209	111 0 0	1,2 9 0	289 0 0	22 0 0	420 0 0	...	...	...
For previous 17 weeks of half-year* ...	2,819,995	12,70,185 0 0	1,47,91,975 0	29,62,395 0 0	2,96,149 0 0	45,19,032 0 0	485,890	876,780	1,062,670
Total for 18 weeks ...	2,982,365	13,56,495 0 0	1,57,71,585 0	31,77,308 0 0	3,14,739 0 0	48,48,632 0 0	512,890	924,767	1,137,657
COMPARISON.									
Total for corresponding week of previous year ...	220 250	1,08,491 0 0	7,92,659 0	2,00,886 0 0	23,317 0 0	3,40,694 0 0	27,151	41,650	71,310
Per mile of railway corresponding week of previous year ...	286	140 0 0	1,020 0	270 0 0	29 0 0	442 0 0	...	...	...
Total to corresponding date of previous year ...	2,870,744	12,57,138 0 0	1,31,72,892 0	31,58,250 0 0	3,13,950 0 0	47,81,338 0 0	495,603	876,004	1,171,607

\* Audited up to week ending 2nd September 1893.

† Excluding steamer earnings.

a Increase is due to moon eclipse.

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for the week ended 4th November 1893, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	31,320	10,350 0 0	45,760 0	3,910 0 0	390 0 0	14,560 0 0	3,655	2,017	5,672
Or per mile of railway ...	251	83 0 0	366 0	31 0 0	2 0 0	116 0 0	...	...	...
For previous 17 weeks of half-year* ...	549,562	1,75,589 0 0	9,44,761 0	77,161 0 0	2,33 0 0	2,55,413 0 0	61,220	33,269	97,481
Total for 18 weeks ...	571,882	1,85,939 0 0	9,90,461 0	81,071 0 0	2,663 0 0	2,69,973 0 0	67,884	35,269	103,153
COMPARISON.									
Total for corresponding week of previous year ...	42,510	14,067 0 0	56,124 0	4,310 0 0	261 0 0	18,638 0 0	3,655	2,017	5,672
Per mile of railway corresponding week of previous year ...	340	113 0 0	451 0	34 0 0	2 0 0	149 0 0	...	...	...
Total to corresponding date of previous year ...	519,739	1,80,554 0 0	9,84,312 0	83,518 0 0	3,271 0 0	2,67,323 0 0	66,959	34,872	105,831

\* Audited up to week ending 2nd September 1893.

## DACCA STATE RAILWAY.

Approximate Return of Traffic for the week ended 4th November 1893, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	17,530	6,810 0 0	56,060 0	5,120 0 0	2 0 0	12,230 0 0	2,487	1,657	4,144
Or per mile of railway ...	204	79 0 0	652 0	60 0 0	3 0 0	142 0 0	...	...	...
For previous 17 weeks of half-year* ...	293,424	98,179 0 0	5,61,857 0	43,483 0 0	2,593 0 0	1,44,086 0 0	42,751	16,033	58,784
Total for 18 weeks ...	310,954	1,04,889 0 0	6,19,927 0	48,605 0 0	2,812 0 0	1,56,396 0 0	45,011	17,680	62,691
COMPARISON.									
Total for corresponding week of previous year ...	19,610	6,080 0 0	38,803 0	4,273 0 0	338 0 0	10,669 0 0	2,672	753	3,425
Per mile of railway corresponding week of previous year ...	228	70 0 0	452 0	60 0 0	3 0 0	123 0 0	...	...	...
Total to corresponding date of previous year ...	234,844	96,274 0 0	4,12,137 0	31,471 0 0	4,023 0 0	1,34,708 0 0	46,213	12,830	59,043

\* Audited up to week ending 2nd September 1893.

BENGAL AND NORTH-WESTERN RAILWAY.									
(INCLUDES THE TIRHUT STATE RAILWAY.)									
Approximate return of traffic for the week ending 4th November 1893, on 755 miles open.									
	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs.	Mds.	Rs.	Rs.	Rs.			
Total traffic for the week on 755 miles open ... ..	89,160	(a) 35,440	3,16,100	41,920	8,830	87,190	13,672	14,409	.....
Or per mile of railway ... ..	117'94	46'88	418'24	55'45	13'00	115'33	...	...	.....
For previous 174 weeks of half-year (b) ... ..	1,607,347	5,81,217	40,59,346	5,21,715	1,47,098	12,50,930	263,041	2,28,071	491,712
Total for 184 weeks ... ..	1,696,407	6,16,657	43,75,436	5,63,635	1,57,928	13,38,120	276,713	238,170	514,883
COMPARISON.									
Total for corresponding week of previous year on 755 miles open ... ..	193,178	90,773	1,89,404	27,970	10,140	1,34,883	18,450	17,348	35,798
Per mile of corresponding week of previous year ... ..	256'80	128'17	250'05	37'05	13'43	178'05	...	...	...
Total to corresponding date of previous year ... ..	1,614,653	6,34,613	46,25,610	6,05,669	1,69,059	14,00,531	251,084	274,419	525,403
(a) Decrease in coaching traffic is due to fairs having been held at Ajodhya and Sonapore in the corresponding week of last year.									
(b) Includes audited figures up to 23rd September 1893.									

DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

						Rs.	A.	P.
Approximate earnings for the week ending 4th November 1893	...	...	...	...	...	16,357	0	0
Corresponding period of 1892	...	...	...	...	...	16,330	0	0
Increase	...	...	...	...	...	27	0	0
Receipts per mile for the week ending 4th November 1893	...	...	...	...	...	320	11	7
Corresponding period of 1892	...	...	...	...	...	320	3	4
Increase	...	...	...	...	...	0	8	3
Receipts from 1st July to 21st October 1893	...	...	...	...	...	2,17,018	0	0
Corresponding period of 1892	...	...	...	...	...	2,24,823	0	0
Decrease	...	...	...	...	...	7,805	0	0





# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, NOVEMBER 22, 1893.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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### RESOLUTION ON THE REPORT ON PUBLIC INSTRUCTION, BENGAL, FOR THE YEAR 1892-93.

GENERAL DEPARTMENT—EDUCATION—No. 2659.

*Calcutta, the 21st November 1893.*

#### RESOLUTION.

READ—

The Report on Public Instruction in Bengal for the year 1892-93.

Read also the Resolution of Government on the Report for the year 1891-92.

THE Report on Public Instruction in Bengal for the year 1892-93 is submitted by Dr. C. A. Martin, who received charge on the 27th December 1892 on the retirement of

Preliminary.

Mr. C. H. Tawney, C.I.E., Officiating Director of Public Instruction. Under the standing orders of Government the present year's Report should be one of a general and summary character, but the Director explains that owing to a call for special information made by Government in the Resolution on last year's Report, he has been obliged in some respects to depart from the standing orders.

2. There has been an increase in the numbers of pupils under instruction, viz., from 1,392,371 to 1,400,067 in public institutions, and a decrease from 139,594 to 134,989 in private or indigenous institutions. On the whole, the number of pupils has

increased from 1,531,965 to 1,535,056. At the same time the aggregate number of public institutions has decreased from 53,956 to 53,131, and private or indigenous institutions from 13,868 to 13,473. Among the schools classed as "Public Institutions" which adopt departmental standards, the number supported or aided by public funds has decreased from 43,972 to 41,697, and the number of unaided schools has risen from 9,984 to 11,434. The number of pupils receiving University and secondary education has increased from 202,510 to 207,192, while the number in primary schools, upper and lower taken together, has slightly fallen, viz., from 1,123,560 to 1,123,225, the upper primary having gained almost as many pupils as the lower primary have lost. The figures for lower primary schools for five years are given below:—

Year.			Schools.	Pupils.
1888-89	...	...	44,854	982,126
1889-90	...	...	44,146	960,914
1890-91	...	...	43,998	942,244
1891-92	...	...	44,920	987,948
1892-93	...	...	43,829	983,271

The population of Bengal, excluding Kuch Bihar, Hill Tippera, and the Tributary States of Chota Nagpur, of which the schools are not included in the Educational returns, is 73,043,697, of whom 36,412,749 are males and 36,630,948 females. This gives, at the conventional rate of 15 per cent., 5,461,912 male children and 5,494,642 female children of a school-going age. Of the scholars on the Educational returns 1,431,528 are boys and 103,528 girls. Hence of all boys of a school-going age, 26·2, and of all girls of a school-going age, 1·9 per cent. are at school. The percentages in the previous year were 26·2 and 1·7, respectively. While it thus appears that one boy in every four throughout these Provinces is receiving instruction of some kind in schools, public or private, the table given in paragraph 12 of the Director's report shows great differences in the degrees of educational progress attained in the various districts and divisions. According to the figures given in that table, Hooghly shows 63·8 of the boys of a school-going age as actually at school against 42·6 in the 24-Parganas; Balasore shows 48·2 per cent. as against 27·8 per cent. in Puri, while Cuttack shows 33·8 per cent. of its boys at school in 1892-93 against 43·3 in the preceding year. Patna gives 31·9 per cent. against half that ratio (15·8) in the neighbouring district of Gaya and 11·1 in Shahabad. Assuming the correctness of the figures, the great disparity in educational progress between the different districts and divisions might be accounted for by differences in material comfort or in the habits of the people, or in the varying degrees of interest in the subject and of energy displayed by the local educational and district officers. The point is one which may with advantage be considered in future Reports. When the cause is ascertained the remedy can be applied.

The following statement taken from the Commissioners' divisional Reports shows the percentage of boys at school to the total number of boys of school-going age in each division of the Lower Provinces:—

Division.			Percentage of boys at school to total number of boys of school-going age.
Burdwan	...	...	51·6
Chittagong	...	...	45·2
Orissa	...	...	35·9
Presidency	...	...	30·1
Dacca	...	...	29·6
Chota Nagpur	...	...	16·7
Patna	...	...	15·2
Rajshahi	...	...	14·5
Bhagalpur	...	...	13

3. The net Government expenditure for the year was less than the sanctioned estimates by Rs. 2,791. In the years 1890-91 and 1891-92 there was an excess of expenditure over receipts to the extent of Rs. 55,115 and Rs. 33,679, respectively. The total expenditure on education in Bengal, including all disbursements from public and private sources, such as the fees and contributions paid to the University and in all public schools and colleges, amounted to

Rs. 96,45,408, as compared with Rs. 93,52,000 in the preceding year, an increase of Rs. 2,93,408. The expenditure from Provincial revenues decreased from Rs. 24,96,000 to Rs. 23,87,906, or by Rs. 1,08,094. Expenditure from all public sources, including District and Municipal Funds, decreased from Rs. 36,29,000 to Rs. 34,66,457, or by Rs. 1,62,543, while expenditure from private sources rose from Rs. 57,23,000 to Rs. 61,79,000, or by more than four-and-a-half lakhs. This is a satisfactory feature in the year's retrospect. Collegiate education cost less by Rs. 11,265, secondary education cost more by Rs. 1,19,810, primary education by Rs. 35,853, and female education by Rs. 1,10,086, of which the share from private sources came to Rs. 1,06,000. Under primary education District Funds contributed Rs. 45,000 less, which, however, was due to the fact that uncashed cheques, though issued, were not included in the accounts of the year. Under female education they contributed Rs. 2,000 more than in the preceding year. Municipal funds contributed under the two heads Rs. 8,000 more than in the preceding year. The expenditure by Municipalities on secondary is still more than 50 per cent. in excess of that on primary education, which means that children who cannot pay for education are refused it in order that those children who can pay may receive it gratuitously. This is not as it should be, and the authorities should see to it that the remedy is applied on all suitable occasions.

4. Mr. Tawney, as Officiating Director of Public Instruction, made a tour extending over 17 days in the month of August 1892, during which he visited the districts of Patna, Muzaffarpur, Bhagalpur, Monghyr and Hooghly, and inspected colleges and schools, and held conferences with District Officers. Dr. Martin made a tour of 40 days during the months of January, February and March 1893, and visited the Sibpur, Hooghly and Midnapore Colleges, as well as the Reformatory school at Hazaribagh and training schools. The time spent on inspections by the inspecting staff of the Province, throughout the year, is exhibited in the following statement and compared with last year:—

	1891-92.		1892-93.	
	Number of officers.	Average number of days.	Number of officers.	Average number of days.
Inspectors ...	5	157	5	168
Assistant and Joint-Inspectors ...	9	143	9	131
European Inspectors ...	2	65	2	67
Deputy Inspectors ...	44	169	44	161
Sub-Inspectors ...	193	208	198	219

Rai Radhika Prasana Mookerjee Bahadoor spent 152 days on tour and visited 251 schools, Babu Dinanath Sen, Officiating Inspector of Schools, Eastern Circle, spent 158 days and visited 194 schools, Mr. Bellett, Inspector of Schools, Rajshahi Circle, 176 days and visited 193 schools, and Mr. Stack 64 days out of 182 days during which he was in charge of the Bihar Circle. These officers did specially good work in their circles. Babu Beni Madhav De did not spend the prescribed period on tour; he inspected only 115 schools, and did not distribute his tours judiciously. Maulvi Abdul Karim should be called upon to explain his neglect to visit the important Musalman district of Chittagong. Babu Brajendra Kumar Guha's excuse for falling so much short of the prescribed touring period is inadequate and unsatisfactory. The periods spent on tour by the Deputy Inspectors have fallen short of the prescribed limit--150 days--in two instances only. It is gratifying to find that the work of all the Deputy Inspectors, so far as touring is concerned, has been satisfactory. The Sub-Inspectors have on an average exceeded the prescribed number of days (200) to be spent on tour in all the Divisions. Dr. Martin explains the reasons of their shortcomings in the case of officers who have not been on tour for the

full period prescribed. The Lieutenant-Governor approves the action taken by the Director in reducing, from class VI on Rs. 100 to class VII on Rs. 75 for one year, Babu Brajaballab Maitra, Sub-Inspector of Burdwan, who had been severely censured year after year, without any real effect, for want of activity. Other Sub-Inspectors who have fallen short of the standard work without sufficient excuse, such as Babu Sarada Prasad Ghose and Babu Anada Prasad Chatterji of Malda, Babu Hara Mohan Ray and Babu Bal Krishna Das of Gaya, should be warned and severely censured. On the other hand, the good work done by the Sub-Inspectors as a body, and especially by Babus Sures Chandra Sarkar and Siva Sankar Lal, is noticed with satisfaction. Last year 921 chief gurus and inspecting pandits paid 280,916 visits to schools: average 305. This year 750 of them paid 248,008 visits: average 331. Chief gurus have their own patshallas to look after, and cannot therefore devote much time to the inspection of those in their neighbourhood. The Officiating Lieutenant-Governor agrees with Dr. Martin that this system should be wholly discontinued, and inspecting pandits should be substituted for chief gurus.

5. *District Boards.*—The Officiating Lieutenant-Governor is glad to notice that the District Boards generally took an important share in the work of education, in the preparation of educational estimates, conducting of lower primary examinations, in discussing and deciding on suggestions from the Circle Inspector and the Director, in framing rules for expansion of primary education and in other ways, and that where formerly much friction and mismanagement were reported there is now co-operation and efficiency. In the Presidency Circle the District Boards have worked in harmony with the Education Department and given due consideration to the opinions of the officers of the Department as coming from experts. The District Boards in the Burdwan Division have made a considerable advance in knowledge and experience and in capacity for work. The appointment of the Deputy Inspectors as *ex-officio* members of the District Boards has given general satisfaction, and, owing to their being also on the Educational Sub-Committees, friction has nearly entirely ceased. The District Boards of Burdwan, Bankura, Hooghly and Howrah, as well as those of Gaya, Shahabad, Saran and Champaran, were late in sending in their annual reports. The Chairmen of the Boards in question will again be reminded through the Commissioners of their responsibilities for such matters of routine business. In the Rajshahi Division the relations between the Boards and the Department have been cordial: from the Dacca and Patna Divisions no case of friction is reported. There was no friction worth noticing in the Chittagong Division. The District Boards of Bhagalpur and Chittagong took special measures to encourage education of a secular kind among the Mussalman community. From Orissa a complaint comes that some of the Local Boards of Cuttack, instead of remitting money invariably through the post-office, make payments sometimes in cash, and “much being left to the Local Board’s office, delays in payment are the consequence.” This practice should be put a stop to.

6. The number of colleges stands at 34, the same as last year, divided into Government 11, Municipal 1, Aided 7, and Unaided 15.

The students on the lists are returned as 5,443 instead of 5,225 as last year—a variation of no significance. The Aided colleges have, taken together, gained 70 students. The Government colleges show a decrease of 133 students. The Midnapore College had 39 instead of 46 youths under instruction. The Unaided institutions have attracted 288 more than last year. The variations in the number of successful candidates at the University examinations during the last five years are shown in the following statement:—

	1889.	1890.	1891.	1892.	1893.
Entrance ... ..	1,153	2,156	1,710	1,643	2,915
Percentage of success ... ..	24	50	43	40	67
First Arts ... ..	629	996	693	1,011	830
Percentage of success ... ..	27	36	36	44	37
Bachelors of Arts ... ..	366	339	231	280	301
Percentage of success ... ..	34	40	29	24	25
Bachelors of Law ... ..	187	254	128	48	148
Percentage of success ... ..	52	70	63	27	47
Masters of Arts ... ..	62	57	46	54	...
Percentage of success ... ..	50	45	36	46	...

7. A comparison of the tables shows that out of 3,766 youths reading on the 31st December 1892 for the F. A. Examination, so many as 2,216 attended the examination: the proportion was lowest in aided colleges. The percentage of successful candidates decreased from 44 to 37. In Government colleges the percentage was 44, in aided colleges 36, and in unaided colleges 36. The most successful unaided mafassal college was the Jagannath College, Dacca, which sent up 172 candidates, of whom 61 passed. Among the candidates for the B. A. degree, the percentage of success increased from 24 to 25. Comparing the groups of colleges, the ratio of success appears to be as follows:—

	A Course.	B Course.	Total percentage.
Government	29	54	34
Aided	19	45	23
Unaided	18	28	20
Total	21	42	25

Of the 118 candidates for Mastership of Arts 54 passed as compared with 46 out of 128 last year.

The suggestion made by Government in paragraph 7 of the Resolution on last year's Education Report, that the University authorities should make efforts to secure uniformity of standard by continuity in the examining body, was referred to the Syndicate by the Director of Public Instruction. That body have replied that they are very sensible of the importance of attaining and of preserving uniformity in the standard of examination, but they think that the present system secures this as far as is practically possible, while at the same time it enables the Syndicate to exercise a control in the matter which it is desirable they should retain.

8. The total expenditure upon collegiate education has decreased from Rs. 7,07,104 to Rs. 6,95,839, or by Rs. 11,265; the expenditure from Provincial revenues has fallen from Rs. 2,92,686 to Rs. 2,79,570; and the receipts from endowments and other sources from Rs. 1,38,835 to Rs. 1,36,159. The charge on Provincial revenues is nearly 40 per cent. of the total expenditure and amounts to more than the Provincial Government outlay on primary education. During the year the cost of each student to Government has decreased in Government Colleges from Rs. 147-13 to Rs. 145-11. The cost per annum of collegiate instruction generally has decreased from Rs. 126-11-6 to Rs. 124-0-11 per head. The cost of the whole number of collegiate students for the past five years may be exhibited as follows:—

	1889.	1890.	1891.	1892.	1893.
	Rs.	Rs.	Rs.	Rs.	Rs.
Average cost of each student in a college in Bengal	124	138	129	127	124
The Government share thereof	50	55	52	52	50

9. The number of candidates who took up the A or Literature Course has risen this year from 967 to 987, while that of the students of the B or Science Course increased from 182 to 220. The increase in the former case has been two per cent.; in the latter about 21; thus showing the growing popularity of the B Course. On the other hand the percentage of success is 21 in the A Course and 42 in the B Course.

10. The main statistics relating to secondary schools for the last five years are contained in the following statement:—

Year.	Number of schools.	Number of pupils.	Public funds.	Private funds.	Total.
			Rs.	Rs.	Rs.
1888-89	2,313	200,124	6,01,539	19,34,506	26,36,045
1889-90	2,366	201,452	6,08,294	20,11,672	26,19,966
1890-91	2,393	199,105	6,11,046	20,62,859	26,73,905
1891-92	2,285	194,178	5,94,816	20,87,904	26,82,750
1892-93	2,326	198,270	5,90,413	20,92,642	26,83,135

Secondary schools of all classes taken together have advanced from 2,285 in 1891-92 to 2,326 in 1892-93, or by 1·8 per cent.; and their pupils from 194,178 to 198,270, or by 2·1 per cent. There has been a decrease of one school in High English Schools, but a gain of 1,158 pupils. Middle English schools have increased by 25 and their pupils by 887, while Middle Vernacular schools have increased by 17 and their pupils by 2,047. In the preceding year the expenditure on 2,285 schools was Rs. 26,82,750, of which Rs. 5,94,846 were contributed from public funds, and Rs. 20,87,904 were raised from private sources. This year Rs. 5,90,493 were raised from public funds, or a decrease of Rs. 4,353, and Rs. 20,92,642 from private funds, or an increase of Rs. 4,738. The increase in the number of schools without a corresponding increase in the expenditure from public funds is no doubt a subject of congratulation, and the Lieutenant-Governor hopes that the economy exercised in the distribution of grants-in-aid by the Education Department, as well as the District Boards, has had an entirely wholesome effect. At the University Entrance Examination, 2,915 boys passed out of 4,365 candidates against 1,626 boys out of 4,046 candidates in 1892. The number of candidates increased from 4,046 to 4,365, or by 8 per cent. only; the number passed has risen from 1,626 to 2,915, or by 80 per cent. The percentage of successful candidates from schools was 25 in 1889, rose to 50 in the next year, fell off to 40 in the two following years, and has now reached to 67. Judging from general results, and from the fact that many schools known to be inefficient obtained a fair measure of success, Dr. Martin has reason for thinking that the last examination was a particularly easy one, and this is said to be the general belief everywhere. The relative position of the different classes of schools remains the same as before, institutions under public management standing at the top, with 81 per cent. of their candidates passed, the Aided schools next with 66 per cent., and the Unaided schools last, with 59 per cent.

11. The results of the Middle English and Middle Vernacular Scholarship examinations are better than those of the preceding year. The percentage of success has risen from 52 to 63. The Lieutenant-Governor is glad to observe that the result of the Middle Vernacular Scholarship examination is more satisfactory than that of the preceding year, the percentage of success having increased from 50 to 57. His Honour sees much reason in the Director's views expressed in the last part of paragraph 59 of the Report that the vernacular schools of the Dacca Division are being stifled owing to the scholarships being awarded in that division on the aggregate marks obtained, so that students even with a smattering of English get a great advantage over the vernacular candidates, and will be prepared to consider the question when proposals are submitted in a definite form.

12. In accordance with the orders contained in paragraph 11 of the Resolution on the Education Report for the year 1891-92, the Director of Public Instruction has inserted in paragraph 60 of his Report a table showing the progress made in drawing in those Entrance schools in which drawing-masters have been appointed. Out of 13 pupils from nine schools who took up drawing, only two passed, both of whom came from the Hare School, while one candidate passed from the Bogra zilla school which is not provided with a drawing-master. The results are disappointing. The Lieutenant-Governor, however, accepts the Director's view that the giving of due importance to the subject by taking the marks gained in it into account in the award of junior scholarships will in time give it a value which will force it into notice.

13. Almost every high school under the department is supplied with a gymnastic teacher, one teacher sometimes working in a group of schools, two or three months at a time in each school of the group. Many high English schools under private management have followed the example of the zilla schools according to their resources. The middle and primary schools mostly satisfy themselves with indigenous games which, though not costly in their apparatus, are none the less useful in promoting muscular development. The Boards of Nadia and Midnapore are making commendable efforts to introduce physical training in middle and primary schools, and other Boards might follow their example.

with advantage. It is noticed with satisfaction that Mr. Growse at Faridpur, Mr. Greer at Tippera, Mr. Oldham, the Commissioner of Chittagong, and the Commissioner and Deputy Commissioners of Chota Nagpur organised inter-school cricket and football matches which they encouraged by their presence, and the Lieutenant-Governor agrees that kindly sympathy like this will do much to popularise games among the pupils. The Society for the higher training of young men, for which a grant of Rs. 100 a month was sanctioned during the year, has given prominence to the question of physical training but nothing practical has yet been done.

14. The Lieutenant-Governor observes with pleasure that the Director reports there has been a perceptible change for the better in the *morale* of school-boys, and that serious breaches of discipline and offences against morality were in most divisions very rare (paragraph 61), but His Honour at the same time notices that some very disgraceful cases of breach of discipline and of disrespect towards teachers and other constituted authorities occurred in Noakhali and Backergunge. Many high English schools possess debating clubs, in which students meet for self-improvement, under the presidency of one or other of the teachers. If properly controlled such clubs serve an useful purpose.

15. The importance of boarding-houses as a powerful factor in promoting school discipline has not been lost sight of. Most Government institutions have attached boarding-houses, in which the pupils live under the charge of one or more of the resident teachers. Schools under private management follow the example of Government schools, whenever their means allow and the exigencies of the localities require such establishments.

16. The fluctuations in the number of the boys receiving primary education during the last five years are shown in the following statement :—

	Upper Primary.		Lower Primary.	
	Schools.	Pupils.	Schools.	Pupils.
1888-89 ... ..	3,077	115,485	44,854	982,126
1889-90 ... ..	3,337	124,568	44,145	960,865
1890-91 ... ..	3,537	128,537	43,997	942,211
1891-92 ... ..	3,661	135,371	44,918	987,948
1892-93 ... ..	3,697	139,728	43,828	983,204

There was a steady advance in the numbers of upper primary schools and pupils, while there was a loss of 1,090 lower primary schools and of 4744 pupils. The fluctuations in the numerical statistics of lower primary schools originated, as explained by Dr. Martin, from different causes, viz., the state of the public health, the price of food-grains, floods or drought—in fact all the agricultural circumstances of the year; but, allowing for these considerations, it is still unsatisfactory to find that there has been little or no progress in primary education during the past five years. In a country in which only one boy in every four of a school-going age is learning to read and write and the other three are absolutely illiterate, the statistics of primary education ought not to show merely a few more one year and a few less the next, but they should show increases in all years. The Officiating Lieutenant-Governor agrees in the opinion that the loss in primary education during the year points to a decline in efficiency and activity of the inspecting staff, and thinks that, if more money were spent throughout the Province in this branch of education as pointed out in the Resolution on last year's Report, the result would be increased numbers at school. Sir Antony MacDonnell entirely concurs in the remarks made in paragraphs 10 and 15 of the Resolution on last year's Report on this subject.

The expenditure incurred from the primary allotment by the Department and by District Boards on account of schools for native boys and girls, and of

the subsidiary inspecting agency, is compared for the last two years in the following table:—

	From Provincial revenues.		From District funds.		Total.	
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Stipendiary schools ...	97,766	1,06,741	1,77,910	1,64,003	2,75,676	2,70,744
Non-stipendiary schools ...	32,075	30,474	2,91,170	2,62,557	3,23,245	2,93,031
Schools abolished before the close of the year ...	3,897	2,857	7,569	8,900	11,376	11,757
Chief gurus and inspecting pandits	12,263	14,157	78,474	78,265	90,737	92,452
Examination charges ...	1,036	1,147	12,203	11,680	13,239	12,827
Scholarships and prizes ...	7,376	9,652	26,068	27,762	33,444	37,414
Grants for buildings and furniture	7,006	7,006	1,011	1,787	8,017	9,891
Other payments ...	8,333	8,715	23,361	21,609	31,694	30,324
Total ...	1,69,662	1,81,317	6,17,766	5,76,563	7,87,428	7,57,880
Allotment ...	1,78,798	1,87,372	6,23,300	6,22,351	8,02,098	8,09,723
Savings ...	9,136	6,056	5,534	45,788	14,670	51,843

The expenditure from Provincial revenues upon stipendiary schools has increased from Rs. 97,766 to Rs. 1,06,741, while that upon non-stipendiary schools has diminished from Rs. 32,075 to Rs. 30,474. The total district fund expenditure was Rs. 5,76,563 against Rs. 6,17,766, and the savings out of the allotted grants amounted to Rs. 45,788 against Rs. 5,534 for the preceding year. Regarding this large saving the Director explains that the figures of expenditure for the year 1892-93 do not include *uncashed cheques*, and these in many districts came to large amounts.

The direct expenditure on primary schools, including the charges for those abolished during the year, was Rs. 5,75,532, or 76 per cent. of the total against Rs. 6,10,297, or 78.5 per cent. in the preceding year. This means that comparatively larger sums were expended during the year under report on such indirect heads as chief gurus, scholarships, prizes, buildings, furniture, &c.

The number of stipendiary schools aided from the primary fund has remained much the same as in the previous year, viz., 6,252 against 6,244, while that of non-stipendiary schools has declined from 34,490 to 31,890, owing partly, as stated above, to the introduction of a minimum allowance for rewards.

The municipal contribution to primary schools for boys and girls was raised from Rs. 24,984 to Rs. 32,916. This is satisfactory as indicating that Municipalities are becoming more alive to the importance of providing for the education of the poor. Dr. Martin says that there is a diversity of practice with regard to the administration of these grants; in some Municipalities they are made over to the department for expenditure; in others they are distributed by the Commissioners themselves without consulting the Department. The Lieutenant-Governor concurs with the Director of Public Instruction in thinking that the former practice should be enforced: for unless this is done, much of the money will be frittered away, or left unspent.

The views of Government as to the financial responsibility of Municipalities in regard to primary education were defined during the year. The principle adopted was that Municipalities should provide for the primary education of at least half the boys of a school-going age within their areas. It was calculated that this would cost them on an average about 3.2 per cent. of their ordinary income, and it was decided that those municipalities which were unable to set aside so large a proportion of their funds during the current year should receive assistance from Government. In future it is hoped that all municipalities will make arrangements to comply with the wishes of Government in this respect. The result of this policy when carried out will be a considerable increase in the funds set apart for primary schools, and a corresponding increase in the number of schools and of pupils attending them. The Chairmen of municipalities have been recommended to take measures for opening the required number of schools from the 1st April 1894.

When due provision has been made for the required number of primary schools, but not before, any further sum which a municipality is desirous of expending on secondary education can be so devoted.



17. The following table exhibits by divisions the apportionment of the primary allotments between upper and lower primary schools, and the direct expenditure upon them:—

*Primary schools.*

DIVISIONS.	Allotment.	EXPENDITURE.		NUMBER OF SCHOOLS.		NUMBER OF PUPILS.		COST PER SCHOOL.		COST PER PUPIL.	
		Upper.	Lower.	Upper.	Lower.	Upper.	Lower.	Upper.	Lower.	Upper.	Lower.
1	2	3	4	5	6	7	8	9	10	11	12
	Rs.	Rs.	Rs.					Rs.	Rs.	Rs.	Rs.
Presidency ...	85,574	10,920	58,714	410	3,882	16,071	103,739	48*6	15 1	39*4	6*3
Calcutta ...	9,172	877	6,908	13	182	717	8,505	67	37*9	19*5	12*9
Burdwan ...	1,16,086	31,105	60,157	725	7,900	26,785	209,101	42*8	7*66	18*57	4*61
Bajshahi ...	77,673	21,021	44,703	421	2,223	11,687	58,467	52	28*1	24*5	12*8
Dacca ...	86,351	23,822	44,390	500	4,063	20,730	36,229	40*2	10*9	18*2	7*3
Chittagong ...	70,915	17,681	30,470	423	4,627	17,363	101,328	41*7	6*9	15*6	8*8
Patna ...	95,216	10,441	48,475	177	4,932	8,816	108,067	92*9	17*1	26*9	7*1
Bhagalpur ...	66,144	13,478	33,994	187	1,874	9,011	43,064	72	18*1	37*3	12*6
Chota Nagpur ...	61,818	7,218	44,240	94	1,225	4,240	42,616	75*2	27*2	37*8	15*5
Orissa ...	49,048	11,768	25,238	214	3,302	6,683	13,130	48*1	7*6	28*1	7*5
Orissa Tributary ...	2,800	00	1,660	1	134	18	1,672	60	12*5	58*3	16
<b>Total</b>	<b>7,21,647</b>	<b>1,04,308</b>	<b>3,08,804</b>	<b>3,285</b>	<b>34,852</b>	<b>123,927</b>	<b>823,907</b>	<b>50</b>	<b>11*4</b>	<b>21*2</b>	<b>7*7</b>

The ratio of expenditure on the two classes of institutions, upper and lower primary, varies from district to district, the rule being that as the payment-by-result system is more largely introduced in the districts of a division, the cost of upper primaries increases proportionately.

In paragraph 74 of his report the Director has given a table showing the number of pupils in each district in the different stages of primary instruction, and comparing their relative positions with reference to the progress made in this respect.

The table has been recast in conformity with the wishes of Government as expressed in paragraph 17 of the Resolution on the last Annual Report. There are now two standards of comparison—one based on the stages of progress attained, and the other on the number of pupils in the different stages of primary instruction put together. The former may be called the merit-mark system, determined as before by assigning five marks to each pupil in the upper primary or the highest stage, three marks for each pupil in the lower primary stage, and one mark for each pupil who reads printed books. These marks roughly represent the years a pupil of average intelligence takes to reach the different stages. The second test compares the progress of the different districts by ascertaining the ratio of the number of pupils in the primary stages to the total population of school-going age. To this second test allusion has been made in a few remarks entered at the foot of the statement, but no attempt is made to explain the extraordinary difference between the percentages between different districts of the same division and between different divisions. Why is it that 47 per cent. of the boys of a school-going age are undergoing primary education in the Bardwan Division and only 24 per cent. in Dacca, and why again is it that 26 per cent. of the boys of the Patna district are at primary schools and only 7·8 per cent. of them in Shalabad?

18. The standard of the results of the Upper Primary Scholarship examination for boys, *i.e.*, candidates from upper primary schools, including private students as given in the

table in paragraph 80 of the report, shows the result more favourable than in the preceding year. Out of 2,460 schools which sent up pupils to this examination, 1,694, or 68·8 per cent., were successful, against 1,493 out of 2,381, or 62·7 per cent., in the year before. The results of the corresponding Lower Primary Scholarship examination show that the number of competing schools increased from 10,001 to 10,597, but that of successful schools declined from 7,244 to 6,923, or from 72·4 to 65·3. The percentage has gone down in almost all the Divisions, and the cause of this decline should be more carefully looked into by the Inspectors and their subordinates.

Mr. Stack, Inspector of Schools, Bihar Circle, writes:—

"Another very important consideration arises here connected with the variation of the maximum limit of rewards that can be earned by gurus in different districts. In Patna, Muzaffarpur, and some others this has been fixed at Rs. 40, whereas elsewhere in the Division it exceeds that limit. It has been found that there are gurus within the area restricted to the forty-rupee maximum who could earn this maximum fully, or very nearly by successful results obtained at *situ* and examinations by the A and B standards only, and who therefore are averse to the additional trouble and expense involved in attending distant examinations at lower primary centres, where no further reward is to be gained. Hence this circumstance

operates adversely in some cases to the attainment of a high standard of results, and the question of the maximum is worthy, therefore, of further consideration by District Boards, who might in consultation arrive at a suitable scale of maximum reward, which would constitute an *inter-Board maximum for the Division*."

The Lieutenant-Governor thinks this proposal may be adopted—at all events as a provisional arrangement, especially as measures are being taken to hold the lower primary examinations in the districts of each division with the same set of questions.

Dr. Martin writes—

"It would seem that in some districts non-stipendiary upper primary schools are not admitted to the reward examination beyond the standards A and B, the two lowest in a primary school. This does not seem equitable, and it sets a premium on poor work by holding out no encouragement for anything higher. Thus in the 24 Parganas, upper primary schools have declined, owing, as the Deputy Inspector says, to the wholesale withdrawal of fixed stipends from them, and to the rule that they must not earn rewards by any standards higher than A and B. There are four well-defined stages of progress in a fully organised primary school, viz., the A and the B standards, the lower primary scholarship standard, and the upper primary standard; and it is highly desirable that each standard should have an adequate value set upon it. If payment is made for the two lowest stages only, few gurus will attempt to raise their schools to a higher level, when the chief incentive for higher work is gone."

The Lieutenant-Governor agrees with the Director that in the case of upper primaries the question of fixing a maximum should be restricted to the A and B standards only, and that every guru of a non-stipendiary upper primary school, who passes pupils by the higher standards, should be rewarded with additional grants. The adoption of this principle will, His Honour trusts, have the effect of raising the tone of these pathshalas.

19. Under the head of Special Instruction are included training schools for teachers and all institutions for professional, technical and industrial education. The number of training schools for masters, mistresses and gurus advanced from 205 to 267 and their pupils from 1,943 to 2,382, and it is satisfactory to notice that this advance was chiefly in the Patna, Bhagalpur, and Dacca Divisions, in which primary education is very backward. The expenditure from Provincial revenues increased from Rs. 83,198 to Rs. 84,597, or by Rs. 1,399, while the total expenditure decreased from Rs. 1,16,703 to Rs. 1,13,380. The expenditure from Provincial revenues in the Government training schools for masters increased from Rs. 67,485 to Rs. 70,591. This is to a great extent due to the employment of drawing-masters and the opening, for the first time during the year, of drawing classes with the necessary apparatus in these institutions.

The results of the Vernacular Mastership examination for pupils of first and second grade training schools and for private candidates show 444 as having successfully passed out of 621 candidates, but are somewhat less favourable than last year: only 110 men have been granted first grade certificates after the three years' course and may be regarded as having cost Rs. 65,211 or Rs. 593 each. From the figures supplied, it appears that in 1,012 middle vernacular schools for boys and girls there were only 895 head-masters (this results from one man having under the Circle system to look after two or three schools in some instances) and 1,872 other teachers. It is satisfactory to observe that of the former no less than 700 were holders of Vernacular Mastership Examination Certificates, and no less than 1,330 of the latter might be regarded as having certificates of competency, while the rest were remnants of the old class teachers or local men employed on low pay. Of 3,550 head-gurus in upper primary schools, 2,629 may be regarded as having ample qualifications, and of 1,298 junior gurus, 602, together with a proportion of 569 others, may also be held to be competent. The Lieutenant-Governor agrees with the Director that there is no difficulty in finding locally all the teachers who are needed for schools of this class.

In paragraph 19 of the Resolution on the report for the year 1891-92, directions were given to "have the whole system of these (training) schools carefully reviewed by the Inspectors." After quoting the opinions expressed by Mr. Prothero, Inspector of Schools, Rajshahi Circle, Babu Dinanath Sen, Officiating Inspector of Schools, Eastern Circle, and Rai Radhika Prasanna Mookerjee, Bahadur, Inspector of Schools, Presidency Circle, Dr. Martin observes:—

"I think the training schools in Calcutta and Dacca might be converted into *training colleges* somewhat upon the lines suggested by Babu Dina Nath Sen, and I believe this could be done without increasing expenditure. The school at Hooghly, in spite of its apparent popularity, might be gradually reduced from its present status, and in a few years it might be abandoned

altogether, its teaching staff being absorbed into the establishments of zilla schools. The schools at Rangpur, Patna, Ranchi, and Cuttack might remain somewhat as they are for some years to come. In these outlying places there is still a need of schools of the kind for the training of teachers who may be employed either as head panlits of middle class schools or as inspecting pandits to help to supervise the work done in the upper and lower primary schools. As regards the school at Chittagong a difficulty arises. On the one hand it might be regarded as a necessity from its being situated in such an outlying district; on the other the Assistant Inspector of Chittagong in referring to its loss of numbers (from 67 to 51) remarks: This is due not to the unpopularity of the school, but to its unusual success at the final examinations during the last two years, when it turned out more pandits than the Division had need of. The supply having exceeded the demand, there was a dead-lock in appointments producing a discouraging effect.' The opinion of the Commissioner of the Division is summed up in the following words:—'A training school in this Division, except in the Hill Tracts, is now an anachronism.'

An expression of Sir Alfred Croft's opinion in the matter will be awaited.

The scheme of attaching guru classes to certain middle schools in each district is said to have worked with varying success in the different circles and divisions. Altogether 1,171 gurus are reported to have received some kind of education in middle class schools at a cost of Rs. 6,473. Of these, only 91 were subsequently able to pass any departmental examinations, so that for each pass obtained (a Middle Vernacular pass being the highest) about Rs. 70 were paid by Government. Dr. Martin does not approve this system. He considers that the question is one upon which the special opinion of each experienced inspecting officer of the Department should be obtained. The Lieutenant-Governor would be glad to be furnished with a special report on the subject.

20. The "Other schools of special instruction," including all institutions and departments teaching Law, Medicine, Engineering, the Calcutta School of Art, industrial schools and other schools of a special character, are shown in the following statement:—

1	2	3	4	EXPENDITURE.						AVERAGE ANNUAL COST OF EDUCATING EACH PUPIL.	
				FROM PUBLIC FUNDS			FROM PRIVATE FUNDS.			Cost to Public Funds.	Total cost.
				From Provincial Revenues.	From District Funds.	From Municipal Funds.	From fees and fines.	From other sources.	Total.		
1	2	3	4	5	6	7	8	9	10	11	12
<b>I. Law—</b>											
Government Law Schools	6	57	71	Rs. 456	Rs. ....	Rs. ....	Rs. 7,162	Rs. 479	Rs. 7,173	Rs. A. P. ....	Rs. A. P. 101 9 0
Municipal ditto	1	4	4	.....	.....	.....	251	.....	251	.....	63 13 0
Unaided ditto	7	427	479	.....	.....	.....	19,394	525	19,919	.....	47 8 7
Total Law Schools	14	488	484	—456	.....	.....	26,807	1,004	27,342	.....	55 5 6
<b>II. Medicine—</b>											
Medical College, Calcutta	1	281	338	1,74,608	.....	.....	16,758	.....	1,91,366	516 9 5	566 3 9
Government Medical Schools.	4	746	760	91,461	.....	.....	13,029	1,612	1,11,102	118 14 11	144 7 7
Unaided ditto	5	518	575	.....	.....	.....	11,559	2,106	13,665	.....	33 11 10
Total Medical Schools	10	1,545	1,682	2,66,069	.....	.....	40,346	3,718	3,16,133	168 2 11	197 15 3
<b>III. Engineering—</b>											
Civil Engineering College, Sibpur.	1	278	228	52,130	.....	.....	10,592	.....	62,742	228 11 7	275 9 11
Government Survey Schools.	3	475	472	6,828	.....	.....	7,732	.....	14,560	14 7 5	30 18 6
Unaided ditto	1	11	10	.....	.....	.....	52	32	84	.....	8 6 4
Total Engineering Schools	5	764	710	58,978	.....	.....	18,376	32	77,386	23 1 0	108 16 10
<b>IV. Art and Industry—</b>											
Government School of Art.	1	108	197	25,171	.....	.....	4,761	.....	29,922	127 13 4	151 14 2
Government Industrial School.	3	20	32	2,056	.....	.....	.....	1,421	3,477	64 4 0	108 10 6
Board ditto	6	190	171	1,305	7,536	.....	585	2,343	11,720	61 7 5	68 9 5
Aided ditto	7	204	334	1,542	650	390	950	3,700	7,232	7 11 8	21 10 5
Unaided ditto	5	198	188	.....	.....	.....	.....	16,790	16,790	.....	89 4 11
Total Art Schools	23	915	922	29,974	8,146	390	6,246	21,254	60,180	41 14 0	75 0 0
<b>V. Other Schools of Special Instruction—</b>											
Government School	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Municipal	1	21	20	.....	.....	298	.....	.....	298	.....	14 14 4
Aided	7	264	215	643	86	157	426	3,516	4,828	5 9 10	19 11 3
Unaided	5	162	140	.....	.....	.....	215	411	626	.....	4 3 2
Total	13	447	414	643	86	455	641	3,927	5,752	2 13 9	18 14 8

The following table exhibits the fluctuations in the numbers of the students reading for the chief professions:—

Year.	Law.	Medicine.	Engineering.	Arts and Industry.	Other special schools.	Total.
1	2	3	4	5	6	7
1888-89 ... ..	935	999	518	651	172	3,275
1889-90 ... ..	912	1,016	652	795	611	3,986
1890-91 ... ..	1,025	1,184	703	753	630	4,215
1891-92 ... ..	663	1,290	801	853	659	3,926
1892-93 ... ..	488	1,545	764	915	447	4,159

The decrease in the number of Law students continues. One reason is the recent changes in the regulations for the B.L. and Pleaderships examinations, and another is that students have begun to see that the native Bar is already crowded. The increase in the number of medical pupils is attributable to the opening of a new school in the Dacca Division. One of the Homœopathic schools in Calcutta, which was returned last year, has not been returned this year. The total expenditure of the Medical College was Rs. 1,91,366 against Rs. 2,05,206 in the preceding year, of which Rs. 16,758 against Rs. 12,140 were raised from fees, and the rest paid by Government. The Officiating Lieutenant-Governor notes with much satisfaction the increase in the number of students of the "Engineering" and "Arts and Industry" classes which Sir Antony MacDonnell like Sir Charles Elliott desires heartily to encourage. So great is the demand for trained apprentices in the Sibpur College now-a-days, that it is sometimes unavoidable to issue certificates before the complete course has been gone through. The Principal writes—

"As a consequence of my inability to supply fully qualified men for vacant appointments, I have been compelled to recommend partially trained men \* \* \*. As many as 39 partial certificates have been issued (during the year under report) to apprentices who accepted employment before the completion of their full course. This shows that the demand for the class of labour is greater than our present supply, and I hope that the attainments of the partially trained men will be found to be up to the standard of the appointments they have been recommended for."

The number of students admitted to the Engineer class was 41 against 28, and that to the apprentice class was 66 against 33. The total admission during the year was 107 against 61 in the preceding year. At the B.E. and L.E. Examinations held in July 1892, 14 candidates competed, of whom 6 or 43 per cent. passed, against 5 in the preceding year. The number of candidates in the F.E. Examination was 14, of whom 11 or 79 per cent. were successful against 4 in the year before.

The proposal to establish an artisan class is under consideration, but no arrangements can be made unless more accommodation is provided in the College. The European students of the College are encouraged to join the Volunteer corps. The College corps was amalgamated during the year with that of the East Indian Railway and formed into an Engineer Company. A class for photography has recently been opened. The total expenditure of the College, exclusive of the workshop, was Rs. 62,742, of which Rs. 10,592 were raised from fees and the rest paid by Government. Of the 43 pupils in the Cuttack Survey School on the 31st March 1893, 23 only were natives of Orissa. The decrease in the number of Uriya students is attributed to the lack of efficient practical training, for want of which even passed students, it is said, are found to be almost useless when they are first taken into Government service, so that, in times when there is a normal demand (for passed students), difficulty is experienced in obtaining employment. The Lieutenant-Governor does not accept this explanation. The difficulties in connection with practical training are no greater in Cuttack than in the Dacca Survey School, where the number of pupils rose from 268 to 318, and where the demand for passed students exceeds the supply. In Orissa, which was recently brought under survey, there ought to be no want of demand for surveyors. The Officiating Lieutenant-Governor thinks that the Directors of Survey and of Land Records might with advantage visit this and other survey schools and offer such suggestions as may be necessary to increase their efficiency. The School of Art, in which the artistic and decorative industries

of Bengal are concentrated, more than maintained its position by attracting 198 pupils against 181 in the preceding year. The school was removed to the new premises in Chowringhee during the year. Seven students of the school were employed during the year as teachers of drawing, and three as draftsmen, in the Indian and Geological Museums. Arrangements were also made with the Office of the Survey of India for a number of specially trained students to be admitted annually as probationers in the drawing office, the pay commencing at Rs. 20 and rising to Rs. 120 a month. The total expenditure on the institution was Rs. 29,922, of which the Government share was Rs. 25,171 against Rs. 27,352 in the previous year. The Government School at Ranchi made some progress in blacksmith's and carpenter's work during the year. The total expenditure amounted to Rs. 3,276, of which Rs. 1,882 (against Rs. 1,555 in the preceding year) were paid by Government.

The Bihar Industrial School was opened during the year. The total capital of this school is Rs. 2,50,411, of which Rs. 2,39,900 is invested in Government securities and Rs. 10,511 deposited in the Bank of Bengal. The monthly establishment charges amount to Rs. 182, and the total cost came to Rs. 16,011, the chief portion of which was devoted to the erection of a building. The institution had 32 pupils on the rolls, divided into two departments—the apprentice with 20 pupils and the artizan with 12. Twenty-five of the pupils received stipends varying from Rs. 7 to Rs. 3 a month. The course of instruction includes arithmetic, algebra, Euclid, drawing and carpentry. The management is vested in a Committee with the Commissioner of the Patna Division as President. A new industrial school was opened during the year at Pabna, the Comilla artizan school was brought on to the books of the department, and a new technical school was opened at Noakhali.

The Lieutenant-Governor has read with pleasure Dr. Martin's conclusion that District Boards and other local Educational authorities are becoming alive to the importance of technical education, and that year after year not only has there been an advance in the number of such schools, but a steady endeavour to place the existing ones on a better footing. Sir Antony MacDonnell hopes that this is only the beginning of a great movement. Higher education has now taken such firm root in Bengal that it has ceased to require from Government the same fostering care as formerly. The educational authorities should now pay special attention to the preparation of the youth of the country for new industrial and scientific pursuits and to the fostering of primary education among the poorer classes.

21. At the beginning of the official year, Mr. Slater, Principal of the Sibpur College, was authorised to visit the outlying industrial schools in order to introduce some uniformity of system into their course of instruction, so as to prepare them gradually for affiliation. Mr. Slater inspected the following institutions:—

- (1) Bihar Industrial School (2 visits).
- (2) Calcutta ditto ditto.
- (3) Giridhi ditto.
- (4) Ranchi ditto.
- (5) Patna Survey School (2 visits).
- (6) Dacca ditto.
- (7) Rangpur Technical School.
- (8) Mymensingh Technical School.
- (9) Hazaribagh Reformatory.

He sums up his conclusions as follows:—

“In the present state of their finances they (these mufassal schools) can never rise above the standard of what I may call primary industrial schools, if they have to purchase machinery at market prices. Their funds are sufficient to enable them to employ a fairly competent head-master (generally an ex-apprentice of this College), and equip a carpenter's and blacksmith's shop. As feeders to a Central Technical College, such schools are invaluable from an industrial point of view; as separate institutions, with no further means of training their more advanced students, they must fail. The experiment has been tried unsuccessfully before, and I am convinced the recently established schools will meet with the same fate unless they are affiliated to an institution that can give a more advanced and complete training. This problem, therefore, of the training of students on a technical basis is a pressing one, if the present movement is to be successful. All my advice to the management of these schools has been based on the understanding that Government desired to place the Sibpur College on such a

footing as to enable it to receive and complete the training of these students from the primary schools. The only other suggestion I could have offered was that the movement should be suppressed as it was certain to fail. The schools I have visited have most readily accepted the suggestion as the only one on which their schools could progress, and I am now hampered with the prospect of these schools asking us to admit their students, and our being obliged to refuse on the ground of inadequate accommodation. My proposal for the proper encouragement of technical education in Bengal is a very simple one, and, if carried out on the lines I advocate, has the additional advantage of being cheap. All I ask for is (I) the affiliation to the Sibpur College of such primary industrial schools as desire this affiliation; (II) the necessary equipment and accommodation in the College to enable me to receive these students. At present the accommodation both in the College and workshops is inadequate for our present requirements, and sufficient accommodation could not be provided under a cost of about three lakhs of rupees. This cost is prohibitive in the present financial position of Government, so I propose to utilise the existing workshops solely for instructive purposes. Their area is sufficient for every purpose I require, and their only cost to the State would be their adaptation to their new requirements. If the shops are given over for educational purposes, a new era in technical education will open out in Bengal.

If it lay with Sir Antony MacDonnell to decide whether the Sibpur Workshops should remain under the control of the Public Works Department or be transferred to the Educational Department, he would have no hesitation in deciding in favour of the transfer. Under the Public Works Department the Workshops serve no substantial purpose, while they compete with private enterprise. Under the Educational Department they would form a necessary and most valuable adjunct to a broad scheme of technical instruction for the Province.

The Lieutenant-Governor is glad to notice that some of the District Boards have created scholarships for the encouragement of industrial studies.

Female education. 22. The progress of female education, in its main statistical aspects, is exhibited in the following table:—

CLASS OF SCHOOLS.	Number of schools.	Number of pupils on the rolls on the 31st March 1893.	Average number on the rolls monthly.	Average daily attendance.	EXPENDITURE.					TOTAL.
					From public funds.			From private funds.		
					Provincial Revenue.	District Funds.	Municipal Funds.	Fees.	Other sources.	
1	2	3	4	5	6	7	8	9	10	11
Managed by Government.	2	240	218	183	Rs. 21,326	Rs. ....	Rs. 120	Rs. 2,607	Rs. 811	Rs. 24,864
Do. by District or Municipal Boards.	6	256	248	196	364	.....	1,431	16	35	1,846
Aided by Government or by District or Municipal Boards.	2,440	49,707	45,615	34,689	74,270	29,226	8,971	24,720	1,70,065	3,07,859
Unaided ... ..	373	6,370	5,818	4,601	... ..	.....	.....	3,188	14,285	17,473
Total ...	2,821	56,579	51,899	39,635	95,960	29,226	10,528	30,731	1,85,296	3,51,738
						1,35,708			2,16,027	
1888-89 ... ..	2,302	47,888				1,21,106			1,88,915	
1889-90 ... ..	2,153	45,090				1,20,171			2,06,788	
1890-91 ... ..	2,238	50,143				1,26,520			2,24,567	
1891-92 ... ..	2,706	54,199				1,31,063			2,23,976	

There was a material advance in female education. The number of girls' schools increased from 2,706 to 2,821, and their pupils from 54,199 to 56,579. The number of girls in boys' schools also increased from 32,749 to 34,200. The net gain of schools was therefore 115, and of pupils 3,931. The only Government schools are the school department of the Bethune College and the Eden Female School in Dacca. It is satisfactory to see that, though the number of girls increased, the total expenditure decreased by Rs. 3,334. The cost of the schools under all the different heads except "Other sources" shows an increase which is in keeping with the increase in the number of schools and of pupils. The *Bethune School* passed two girls at the last Entrance examination, but the number of girls sent up has not been mentioned; the Dacca Female School sent up two, of whom one passed. Mrs. Wheeler, the Inspectress of Schools, furnished examination returns of 5,537 pupils; the number of schools examined by her was 104, of which 46 are in Calcutta. In Calcutta there were 150 primary girls' schools with 5,872 pupils against 162 schools with

5516 pupils in the preceding year. Arrangements have recently been made and rules framed under which the grants to schools in and near Calcutta will be revised, so as to bring them to some extent into proportion with the actual work done. The special standards for girls' scholarships that were originally decided for Calcutta and its neighbourhood could not be largely extended to the mufassal for want of funds. It is a matter for congratulation to read that, in the last examination under these standards, out of 276 examinees, 236 passed and 175 out of 292 in the preceding year.

23. Though the total number of schools remained unchanged, there was an increase of 346 scholars attending European schools in Bengal during the year, and, with the exception of a slight falling off in 1886, the number has steadily increased since 1883, as the following figures will show:—

YEAR.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.
Number of schools ... ..	5,578	5,955	6,389	6,098	6,391	6,541	6,082	6,710	6,929	7,098	7,444

The Government Boarding School at Kurseong had 86 students instead of 90; the Government expenditure has been reduced by Rs. 1,900. The average cost per scholar (Rs. 152) was less than that of the preceding year, (Rs. 180). The 27 schools under Roman Catholic management afforded education to 3,968, and the 14 Church of England schools to 1,750 children, out of 7,444 above mentioned, the remainder belonging to other denominations. The total cost of European education was Rs. 10,84,680, of which Government paid Rs. 1,70,798. Government sanctioned during the year Mr. Bamford's proposals, (1) that all the aided schools in Bengal should receive grants dependent upon the average attendance of scholars instead of upon examination results, and (2) that frequent supervision by the Inspector should supersede the annual examination. These changes will give the Inspector freedom to employ the best methods for investigating the character of the teacher's work, and enable him to spend a much greater portion of his time actually in the schools, thus affording him increased opportunity for giving help and supervision where it is needed. The number of candidates from European schools for the University Entrance examination increased from 106 to 154, and the number of successful candidates from 52 to 126. The percentage of successful candidates rose from 49.1 to 81.8. The number of schools upon the special list of those in receipt of fixed annual grants is the same (five) as in previous year. All these schools were examined during the year on the collective system (i.e., the classes as a whole were tested instead of each individual scholar), and were all found to be doing good work.

24. The total number of Muhammadan pupils decreased from 448,847 to 447,485, or by 1,362, and the percentage from 29.2 to 29.1. In public institutions the Muhammadan pupils increased by 4,430. A large increase, viz. by 3,094 Muhammadan pupils, took place in the upper primary schools. The private institutions sustained a loss of 5,792 Muhammadan pupils. In advanced private schools there was a loss of 1,793 Muhammadan pupils, while in the elementary schools there was a gain of 2,753. In other schools not coming up to departmental standards, there was a loss of 56 pupils. The actual expenditure of the Mohsin Fund exceeded the estimates which amounted to Rs. 66,654 by Rs. 777. The number of Muhammadan candidates successful at the University examination for the last five years is shown as follows:—

	1890.	1891.	1892.	1893.
Entrance ... ..	54	125	110	85
First Arts ... ..	21	57	16	47
Bachelors of Arts ... ..	18	21	12	14
Masters of Arts ... ..	1	3	2	2

The number of passes gained by Muhammadan candidates was greater in 1892-93 than in the preceding year at all the examinations except the First Examination in Arts. The percentages also of Muhammadans among successful candidates advanced except in the case of the First Arts Examination. The Lieutenant-Governor considers that, though these results show some



slight improvement, they are disappointing when the proportion which the Muhammadan element bears to the total population is considered. The ratio per cent. of Muhammadan boys at schools, of all kinds to the total number of Muhammadan boys of a school-going age is 25, against 29 per cent. in the case of Hindus. Of boys receiving secondary education, 81 per cent. are Hindus and only 14 per cent. Muhammadans, while of students receiving collegiate education, 90 per cent. are Hindus and only 5 per cent. Muhammadans.

In the general results of the central examination of the Madrassas 169 out of 313 passed this year, as compared with 224 out of 270 last year. The total number of candidates increased by 43, but the total number of passes diminished by 55. Three of the seven Madrassas are maintained from Provincial revenues; the rest from the Mohsin Fund. The 1,722 pupils at the seven Madrassas cost Government Rs. 25,231, and the total expenditure on their account was Rs. 59,933. Physical training is receiving attention both in the Calcutta and the Nawab of Murshidabad's Madrassas. On the subject of the comparative backwardness of Muhammadans in education, especially of the higher kind, the Director remarks:—

“One of the most depressing influences which have had the effect of discouraging the advance of education among the Muhammadan community arises from the fact that so little has hitherto been done towards giving employment to Musalman gentlemen in the Department of Public Instruction. This is a matter which I have recently brought to the notice of Government in a separate report, so I need not do more than allude to it here. Another matter upon which I wish to make a passing remark is the constitution of the District Boards, upon which in the majority of cases Muhammadans are not represented in such proportions as their numbers would seem to demand. This is a difficulty for which seemingly a remedy might easily be found. The Muhammadan Assistant Inspector for Patna and Bhagalpur Divisions, pointing to the fact that some of the Boards in Bihar ‘have no Muhammadan members at all, and some perhaps only one or two,’ goes on to say:—‘The result has been just what could be anticipated with such imperfect and one-sided representation, so that even in some cases the presence of a European Magistrate-Chairman with all his powers and endeavours cannot do anything to help the cause of Muhammadans and check the growing tendency to retard it.’”

This matter will be separately considered.

25. The aboriginal population of Bengal includes the Sonthals and Kols, Dhangars, Uraons, Pathaliks, Paharis, Indo-Tibetans, Indo-Chinese, Indo-Burmese, besides the tribes on the Assam, Chittagong and Tippera frontiers. The number of pupils of these aboriginal races under tuition increased from 29,657 to 31,712 or by 2,055. The Christians advanced by 964 and the non-Christians by 1,091. The divisions in which the aborigines chiefly live are Burdwan, Bhagalpur and Chota Nagpur. In the first of these there were 3,426, in Bhagalpur 6,231, and in Chota Nagpur 17,579, of whom 4,424 are Christians and 22,812 are non-Christians. The five missions in Chota Nagpur maintained 136 schools as compared with 146 in 1891-92, and the pupils attending them decreased from 4,194 to 3,920 or by 274. The total expenditure on these schools increased from Rs. 33,933 to Rs. 42,063, while the Government expenditure decreased from Rs. 9,435 to Rs. 9,282. The aboriginal pupils gained 133 more passes at the Entrance and other examinations than in the previous year.

Indigenous education.

26. The figures for the last five years under this head are as follows:—

		1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
Schools	...	11,709	13,867	13,387	13,868	13,473
Pupils	...	117,284	139,603	132,057	139,594	134,989

The total number of institutions decreased by 395 and the pupils attending them by 4,605. The largest decrease was in the Chittagong Hill Tracts, and is attributed by Mr. Oldham to the fact that foreigners are imported to supervise education. The suggestion of the Commissioner that he should be given the powers of Director in this district should be separately submitted.

The advanced schools for teaching Arabic or Persian decreased by 77 and their pupils by 1,933, while the Sanskrit tols increased by 102, but their pupils diminished by 202. Certain rules were published by Government during the year for the award of Government stipends in the indigenous tols of Bengal, Bihar and Orissa, and nine Associations have been empowered to conduct the examination, the same sets of question papers being supplied to each by the Principal of the



Sanskrit College. Under the orders of Government Mahamahopadhyaya Mahesha Chandra Nyayaratna, C.I.E., visited Sanskrit tols in the Cuttack, Puri and Balasore districts. His visit to Orissa proved a success and evoked much enthusiasm in the cause of Sanskrit teaching in that province. Under his auspices three Associations have been established for the promotion of the study of Sanskrit.

27. The duty of selecting school-books has, since the year 1875, been entrusted to the Central Text-Book Committee, which now consists of 17 members, with Babu Bhudeb Mukherji, C.I.E., as President, and the Inspector of Schools, Presidency Circle, as *ex-officio* member and Secretary. The Committee received for examination during the year 301 books on different subjects: of these 157 were approved for various purposes, 142 were rejected, and the consideration of two books had to be postponed. Besides the Central Text-Book Committee sitting at Calcutta, there are Branch Committees for Bihar and Orissa. A list of text-books and another of prize books in Hindi and Urdu were approved by the Bihar Text-Book Committee and published for the first time. The Orissa Committee consists of 16 members, of whom only four belong to the Education Department, but it does not appear that its members did any very useful work during the year.

28. The Officiating Lieutenant-Governor desires to thank Dr. C. A. Martin for his efficient administration while in charge of the Department, and cordially agrees in the high eulogium already bestowed by Government on Mr. Tawney for his conspicuous services in the cause of education in Bengal.

By order of the Lieutenant-Governor of Bengal,

M. FINUCANE,

*Offg. Secretary to the Govt. of Bengal.*

# RESOLUTION ON THE ANNUAL GENERAL ADMINISTRATION REPORT FOR THE PRESIDENCY DIVISION FOR 1892-93.

GENERAL DEPARTMENT.—MISCELLANEOUS No. 2658.

Calcutta, the 21st November 1893.

## RESOLUTION.

READ—

The Annual General Administration Report for the Presidency Division for 1892-93.

Read also—

The Annual General Administration Report for the Presidency Division for 1891-92, and Government Resolution thereon.

Except for the last few weeks of the year, Mr. Beames was in charge of the Division. The report is submitted by Mr. Westmacott, who assumed charge on the 4th March 1893.

2. The Commissioner's tour was far short of the prescribed length, and covered only 68 days, to which Mr. Beames contributed 48 and Mr. Westmacott, during the short time he was in charge 20 days. The tour of the Collector of Murshidabad fell short by 13 days; Mr. Kennedy explains that his tour was curtailed by stormy weather in February, and by the necessity for remaining at head-quarters during March to complete the half-yearly inspections; but the Lieutenant-Governor agrees with the Commissioner that his explanation is not sufficient: all other district officers found it possible to comply with the orders. All Sub-divisional Officers completed the full period of tour, except the Sub-divisional Officer of Magura, where Mr. Lees was on tour for only 22 days between the 1st April and the 12th December; he then made over charge to Babu Bepin Behari Mookerjee, who was on tour only for 53 days during the remainder of the year. The inspections of the district offices and treasuries, which were punctually made, disclosed no serious irregularities in any district except Nadia, where defects were noticed in the arrangement of the records, and in the dilatory disposal of applications respecting spoiled stamps in the Certificate Department. In the same district the registers of loans under the Land Improvement and Agriculturists' Loan Acts were found to be in great disorder, and in consequence a muharrir, who it appears had dishonest reasons for not keeping proper accounts, has been dismissed. The Lieutenant-Governor will be glad to be informed of the name of the Deputy Collector in charge who failed to exercise efficient supervision. The district officers inspected all the sub-divisional offices and treasuries in their respective districts twice during the year in accordance with existing orders.

3. The rainfall of the year was greater than that of the previous year in all districts except Nadia, where it was approximately the same. The largest fall, 93·44 inches, was recorded at Canning Town in the 24-Parganas, and the smallest, 34·31 inches, at Akhriganj in Murshidabad. The uneven character of the rainfall affected the outturn of the harvests, which varied considerably not only in different districts, but in different parts of the same district. There were good aus crops in Nadia and Jessore, and a bumper aman crop in the *bagri* tracts of Murshidabad, while in the Jangipur sub-division the crop failed. The *aman* or winter rice was generally below the average, and in parts of Jessore and Khulna it was much below the average. The rabi crops were damaged by excessive rain.

Public Health.

4. The following figures show the total reported mortality in each district for the last three years:—

DISTRICT.	1892.	1891.	1890.	Deaths per mille.		
				1892.	1891.	1890.
24-Parganas ...	48,058	45,785	36,900	25·40	24·19	22·05
Nadia ...	58,686	71,582	32,676	35·69	43·53	19·73
Jessore ...	79,707	76,820	59,531	42·19	40·67	30·69
Murshidabad ...	40,678	40,599	26,438	32·51	32·45	21·55
Khulna ...	37,286	30,713	33,509	31·66	26·07	31·02
Total ...	264,415	265,499	189,054	33·66	33·80	24·9

These statistics, defective as they are, would seem to indicate that public health was on the whole better than in the previous year. The mortality from malarial fever and cholera still seems to be great, and will probably continue so as long as the water-supply, sanitation, and the drainage of the country are not improved. Some steps have been taken towards improving the water-supply in the districts of the 24-Parganas, Jessore, and Khulna.

Material condition of the people.

5. In regard to the material condition of the people, the following remarks are taken from the

Commissioner's report:—

"There was no improvement in the condition of the people during the year. It would seem rather to have somewhat deteriorated. The high prices of food-grains which prevailed during the last three years pressed hardly on the landless classes and all persons with small fixed incomes. The agricultural classes did not feel the pinch so much, inasmuch as they had the benefit of better prices for such crops as they harvested. The case was, however, different with the labouring classes, who had no increase in their wages. The condition of the poorer middle classes (*bhadra lok*) was also bad. Their incomes being limited, they found difficulty in maintaining their social position. According to the custom of the country, they spend more than they can afford on marriages and other social ceremonies, and to meet these charges they generally have recourse to the money-lender, with the inevitable result that they ultimately lose such rent-free lands as they may possess. This is evident from the large increase in the number of sales of immovable property, mortgage deeds and bonds for money registered during the year."

The following extract relating to Murshidabad is also of interest:—

"In Murshidabad the condition of the people is said to have been generally good, owing in great measure to the trade in silk. The large number of silk filatures causes a steady demand for labour, and both landless labourers and cultivators make large profits by rearing silkworms. Mr. Kennedy thinks that what distinctly injures the lower classes in some parts of the district is the amount given in charity by rich zamindars, which must materially injure the spring of industry by reducing the need of work. There are in this district always a lot of beggars from other districts, especially Muhammadans."

In the Diamond Harbour sub-division of the 24-Parganas, there was some distress during the rainy season, and relief was given by the District Board and also by private individuals and charitable institutions. Loans under the Agriculturists Loan's Act were granted to a number of raiyats in this sub-division, and in a few villages in thana Kumarkhali in Nadia, to enable them to tide over any temporary difficulties which they may have experienced.

6. There is no emigration properly so called from any of the districts of this division. There is a large annual influx of labourers from Jessore and Nadia to the Sundarbans and neighbouring districts during the harvest season, but owing to the poor harvests many this year were unable to obtain employment.

Emigration.

7. The price of rice, which is the staple food in all the districts of the Division, was higher in the 24-Parganas and Jessore, but lower in Murshidabad, Khulna, and Nadia than in 1891-92. A steady rise is taking place in the price of food-grains in Jessore and Khulna, which the Commissioner attributes to the action of railways and Commerce in bringing about uniformity of prices and to the continued fall in the value of the rupee. As regards the wages of labour, both superior and common, they were almost the same as in the past two years. The Commissioner adds that wages are in a manner fixed by custom in different districts and localities, and the fluctuations in the prices of food-grains have so far had little effect upon them.

Prices.

8. The chief manufactures of this Division are—cotton twist and yarn, gunny-bags, cloth-paper, ice, shell-lac and lac-dye, indigo, silk, sugar, and molasses. The manufacture of cotton twist, gunny-bags, cloth-paper, ice, shell-lac, and lac-dye is confined to the district of the 24-Parganas, in which 49 mills, presses, and factories were at work at the end of the year, against 46 in the previous year. Besides the mills and factories, there are several jute screws, soorkee, and flour mills, and castor-oil presses in the suburbs of Calcutta, and 16 oil mills at Swarupganj in Nadia, but no statistics of their outturn have been furnished. The year was a favourable one for jute and cotton mills.

Manufactures and Mines.

Indigo is manufactured in the districts of Nadia, Jessore, and Murshidabad. The season was unfavourable, and in all districts the outturn was less than in the preceding year. In Nadia the outturn was only one-third of what it was the year before, and in Jessore nine factories were closed. Though prices were considerably higher, the total value of the indigo produced in the three

districts was only Rs. 12,90,527 in 1892-93, against Rs. 21,69,000 in 1891-92, in which year the value of the produce in Nadia alone was Rs. 12,67,980 against Rs. 5,44,790 in 1892-93. The season was nearly, but not quite, as bad as that of 1890-91.

Silk is manufactured in the districts of the 24-Parganas and Murshidabad; and while the former showed a decrease in the value of the outturn as compared with the previous year, in the latter the outturn showed a satisfactory increase both in the amount and value. There was a considerable increase in the number of silk cloths manufactured at Mirzapur in Jangipur.

Sugar is manufactured on an important scale in Jessore and Khulna, and molasses in Nadia, Murshidabad and Khulna. These industries give promise of expansion.

9. The volume of trade on the eleven main road routes of the 24-Parganas, the trade of Nadia, and that of the Nadia rivers, appear to have declined. The trade of Jessore is said to be on the increase. The Bengal Central Railway aided by the steamer service has greatly facilitated communication with Calcutta, where the products of the district find a good market. There was a marked increase in the export traffic of Murshidabad, due to a large increase in the exports of rice and of gram and pulses in consequence of high prices elsewhere. In Khulna both the export and import traffic showed improvement.

Civil Justice.

10. The following table shows the work of the Civil Courts during the year:—

DISTRICT.	Subdivision or chauki.	Description of Court.	Number of officers.	NUMBER OF ORIGINAL CASES DISPOSED OF.		DETAILS OF CASES IN COLUMNS 5A AND 5B.			Number of witnesses examined.	Ratio per cent. of witnesses detained over two days per cent. of witnesses examined.	Ratio per cent. of cases pending at end of year per cent. of cases disposed of.	
				Ordinary.	Small Cause Court.	Money.	Rent.	Title.				
1	2	3	4	5A	5B	6	7	8	9	10	11	
24-Parganas	Sadar ... ..	Munsif ... ..	3	4,616	1,304	2,602	2,748	530	6,733	8	14	
	Barasat ... ..	Do. ... ..	2	3,407	1,374	2,145	2,270	366	6,300	12	10	
	Baripur ... ..	Do. ... ..	2	3,484	1,603	2,134	2,690	237	5,853	7	14	
	Basirhat ... ..	Do. ... ..	24	3,042	1,923	2,001	1,830	467	8,509	21	13	
	Diamond Harbour	Do. ... ..	34	5,971	1,017	1,840	4,711	437	8,565	16	10	
	Sealdah ... ..	Do. ... ..	2	2,959	.....	1,826	889	244	4,219	14	20	
Nadia	Sadar ... ..	Munsif ... ..	2	1,647	2,310	2,547	1,282	124	6,315	6	8	
	Chudanga ... ..	Do. ... ..	1	1,475	1,621	2,331	702	63	3,038	9	7	
	Meherpur ... ..	Do. ... ..	1	925	1,356	1,813	440	28	2,054	...	8	
	Ranaghat ... ..	Do. ... ..	14	1,722	1,404	1,780	1,180	180	3,130	17	8	
	Kushtea ... ..	Do. ... ..	24	3,255	3,854	4,626	2,114	369	10,921	8	6	
Jessore	Sadar ... ..	Munsif ... ..	3	7,157	.....	357	6,465	335	6,301	10	7	
	Narail ... ..	Do. ... ..	34	3,905	1,870	2,040	2,032	364	6,636	8	14	
	Magura ... ..	Do. ... ..	21	3,843	1,971	2,333	3,177	304	7,699	7	10	
	Jhenidah ... ..	Do. ... ..	2	2,465	1,470	2,002	1,734	100	4,842	1	10	
	Bangaon ... ..	Do. ... ..	1	1,987	1,637	1,805	1,570	80	3,755	2	5	
Murshidabad	Sadar ... ..	Munsif ... ..	14	1,293	1,116	1,446	840	114	3,562	20	15	
	Azimganj ... ..	Do. ... ..	1	1,016	775	1,302	430	50	2,595	9	8	
	Jangipur ... ..	Do. ... ..	14	2,580	2,094	2,609	1,917	148	4,830	23	10	
	Kandi ... ..	Do. ... ..	2	2,553	1,050	1,625	1,653	434	5,223	11	10	
	Lalbag ... ..	Do. ... ..	1	1,640	309	1,264	1,131	54	2,353	9	9	
Khulna	Sadar ... ..	Munsif ... ..	2	2,928	552	752	2,497	231	4,384	11	9	
	Bagerhat ... ..	Do. ... ..	24	3,264	1,300	2,027	2,322	275	4,615	29	12	
	Satkhira ... ..	Do. ... ..	3	4,118	1,607	2,163	3,092	470	6,891	21	6	
				404	71,362	33,988	48,559	50,656	6,136	129,200	13	10
* Total for 1891-92				614	66,587	38,474	50,073	47,917	6,316	273,940†	12	11

\* Includes the figures for Judges and Sub-Judges.

† Shows the number of witnesses who attended.

The number of civil suits disposed of by the Munsifs increased from 81,756 in 1891 to 105,350 in 1892. The proportion of witnesses detained over two days to the total number examined was greatest in Bagerhat in the Khulna district, where the ratio was 29 per cent. The ratio exceeded 20 per cent. in Satkhira, Jangipur, and Backergunge. The proportion of cases pending at the end of the year to the number of cases disposed of was highest in Sealdah.

The Commissioner remarks that suits for money or moveables and rent suits increased in all the districts, the increase being attributed to decrease in the general prosperity of the people occasioned by the partial failure of crops, and consequent difficulty in recovering debts and realizing rents.

11. The number of cognizable offences reported in this Division during the year was 15,859 as compared with 15,099 during the previous year, showing an increase of 760 cases. The number of non-cognizable cases was 16,847 against 16,574 in the year before, showing an increase of 273 cases. All districts except Nadia and Khulna contributed to the increase in the number of cognizable cases which was chiefly made up of offences against property, with the addition in the 24 Parganas of offences under the Act for the Prevention of Cruelty to Animals. The increase in offences against property is ascribed mainly to the high prices of food and the pressure felt by the labouring classes. The following extract is taken from the Commissioner's report:—

"The Magistrate of Jessore reports that as regards his district, the past year was conspicuous for an epidemic of crimes against property in the form of burglaries and dacoities. The district abounds in professional and systematic thieves, who form gangs under known leaders. They belong to various castes and classes, such as Kayasths, Mochees, Bediys, and Mussalmans. It is stated that the outbreak of crime was most marked in the Sadar subdivision, and to a less degree in the Bangaon subdivision, where there had been a succession of poor harvests, and where the criminal classes are numerous. Special detective officers were deputed to take the dacoity cases in hand, and a fair degree of success is said to have been obtained in bringing the offenders to justice. It is observed that detection is rendered more difficult by the existence of receivers of stolen property, who are to be found in the more respectable classes of society, such as Kayasths, and whom it is very difficult to catch. Systematic efforts were made to check the recurrence of burglaries by binding down bad characters under section 110 of the Criminal Procedure Code and holding the enquiries on the spot. The villagers, it is stated, came forward with alacrity to give their evidence, and the result was that burglaries almost ceased in some of the worst localities. Dacoities could also be stopped at once, if the villagers could only be induced to pursue the robbers with a hue-and-cry, rousing every village through which they pass to take up the pursuit."

Non-cognizable cases increased in all districts except Jessore and Murshidabad.

12. The conduct of the police in this Division is said to have been on the whole satisfactory. Mr. Brajendra Nath De, Police. however, the Magistrate of Khulna, observes:—

"The conduct of the police was on the whole fair; but I cannot speak favourably of the intelligence or ability of the officers. Only 1 of the 3 Inspectors is a man with detective ability. The Sub-Inspectors are as a class not men of ability, and only a few of them can be thoroughly depended upon. There are only 1 or 2 out of the whole body of 21 that can be promoted to the rank of Inspector. The men who have risen from the rank of head-constable can only rarely be thoroughly depended upon, and many of them appear to be thoroughly worked out and offete before they rise to be Sub-Inspectors. Two outsiders were tried during the year—one a B.A., and the other a man who came from the Inspector-General's office and Mr. Ballard's office with good testimonials, but they have not by any means turned out to be successes. It is scarcely necessary after what I have said about Sub-Inspectors that I should say anything about head-constables. As a class they are apathetic and stupid."

The Commissioner considers that on the whole chaukidars worked well in all districts except Khulna, where they are said to be indolent and apathetic. Many chaukidars are still very poorly paid and in consequence have to work as day-labourers. Their wages however, are paid more punctually than before, except in Nadia, where the state of things in this respect is described as very bad, and an indication, the Commissioner remarks, of the want of a strong and vigorous Magistrate in that district.

\* Criminal Justice.

13. The following statement shows the work of the criminal courts in the Division by districts:—

## Stipendiary.

DISTRICT.	Subdivision.	Class of officers.	Number of officers.	Cases disposed of.	Persons disposed of.	Ratio per cent. of persons convicted to disposed of.	Number of witnesses examined.	Ratio per cent. of witnesses detained over two days to total number examined.	Ratio per cent. of cases confirmed in appeal to total appealed.	Number of A cases disposed of.	Number remained six times and more.	Average number of cases disposed of per officer.	Average of witnesses examined per case disposed of.	Ratio per cent. of columns 13 to 11.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
21-Parganas	Sadar	Stipendiary	61	4,322	4,966	78	8,831	6	14	3,000	3	601	2	1
	Senidah	Ditto	1	5,045	5,665	92	2,716	8	11	4,916	3	5,045	5	1
	Dum-Dum	Ditto	1	108	258	48	372	5	..	70	1	108	2	1
	Barrackpore	Ditto	2	206	481	56	1,120	..	18	162	2	148	4	1
	Barasat	Ditto	2	415	574	63	1,174	22	4	160	..	207	3	..
	Basirhat	Ditto	2	306	660	69	1,715	0	16	173	4	108	4	..
Nadia	Diamond Harbour	Ditto	2	958	1,306	69	2,022	5	14	444	9	479	3	2
	Sadar	Stipendiary	44	1,674	1,514	68	2,889	6	76	224	7	238	3	3
	Kushtia	Ditto	2	753	1,044	74	2,595	1	74	251	2	361	3	..
	Meherpur	Ditto	14	882	564	62	1,131	2	70	111	..	218	3	..
	Chandaiga	Ditto	4	87	141	56	303	..	70	90	..	348	3	..
	Ranachal	Ditto	1	451	605	78	1,235	2	75	148	..	461	3	..
Jessore	Sadar	Stipendiary	54	914	1,304	59	6,246	1	69	237	4	174	7	2
	Honuaon	Ditto	12	519	704	57	1,051	1	65	173	7	416	4	4
	Mogura	Ditto	1	409	689	52	2,119	11	87	101	15	402	5	15
	Jhoidah	Ditto	1	258	605	46	1,662	2	61	77	..	288	6	..
	Narail	Ditto	1	357	680	60	1,304	..	60	190	..	353	5	..
Murshidabad	Sadar	Stipendiary	6	848	1,164	58	3,608	7	83	489	49	141	4	11
	Lalbug	Ditto	4	214	317	68	1,001	2	75	..	..	548	3	..
	Jangipur	Ditto	1	554	693	71	1,407	10	59	105	2	353	3	1
	Kandi	Ditto	1	302	563	65	1,700	10	45	206	..	342	4	..
Khulna	Sadar	Stipendiary	4	728	1,038	52	3,001	3	69	193	3	162	5	1
	Bagerhat	Ditto	1	591	861	54	2,417	5	73	192	14	394	7	7
	Satkhira	Ditto	2	565	916	62	2,672	1	68	261	..	282	5	..
	Total		504	20,557	27,500	71	57,817	4	52	11,902	125	405	3	1
Total for 1891-92			554	21,737	29,043	70	60,146*	4	69	12,620	387	303	3	3

\* Shows the number of witnesses who attended.

## Honorary.

DISTRICT.	Subdivision.	Class of officers.	Number of officers.	Cases disposed of.	Persons disposed of.	Ratio per cent. of persons convicted to disposed of.	Number of witnesses examined.	Ratio per cent. of witnesses detained over two days to total number examined.	Ratio per cent. of cases confirmed in appeal to total appealed.	Number of A cases disposed of.	Number remained six times and more.	Average of cases disposed of per officer.	Average of witnesses examined per case disposed of.	Ratio per cent. of columns 13 to 11.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
21-Parganas	Sadar	Honorary	3	978	1,079	73	1,754	11	23	79	8	326	2	10
	Senidah	Ditto	3	1,679	1,897	78	1,520	1	23	..	..	560	1	..
	Dum-Dum	Ditto	1	123	215	52	182	..	..	..	..	123	1	..
	Barrackpore	Ditto	3	620	659	65	1,042	..	30	..	..	173	2	..
	Barasat	Ditto	3	200	212	66	452	6	..	..	..	67	2	..
	Basirhat	Ditto	2	148	227	29	275	7	66	..	..	74	2	..
	Diamond Harbour	Ditto	1	42	45	77	11	..	..	..	..	42	1	..
	Joybazar	Ditto	1	542	553	86	544	..	..	..	..	542	1	..
	Rajpur	Ditto	1	71	71	97	87	..	..	..	..	71	1	..
	Birgaon	Ditto	1	34	34	94	35	..	..	..	..	34	1	..
Nadia	Sadar	Honorary	2	531	572	80	722	4	35	6	..	206	1	..
	Kushtia	Ditto	4	310	460	66	1,320	2	73	76	..	418	4	..
	Meherpur	Ditto	1	45	71	60	170	..	100	10	1	43	1	10
	Chandaiga	Ditto	4	55	55	70	69	27	100	..	..	106	1	..
	Ranachal	Ditto	3	213	255	62	432	4	44	2	..	71	2	..
	Navadwipa	Ditto	1	237	236	86	20	..	..	..	..	235	1	08
	Kamar Khali	Ditto	2	141	141	96	143	..	..	..	..	564	1	..
	Sandhan	Ditto	1	529	561	68	652	..	59	..	..	204	1	..
	Chakdaha	Ditto	1	134	157	63	210	1	40	..	..	132	2	..
	Birgaon	Ditto	1	34	34	94	35	..	..	..	..	34	1	..
Jessore	Sadar	Honorary	2	272	280	85	387	..	75	..	..	136	1	..
	Bogura	Ditto	1	45	57	55	66	..	..	..	..	46	1	..
	Meherpur	Ditto	1	48	61	90	61	..	..	..	..	48	1	..
	Mogura	Ditto	1	32	38	34	115	..	100	..	..	32	4	..
	Jhoidah	Ditto	2	29	50	30	110	..	100	..	..	14	4	..
	Kotebandpur	Ditto	1	54	54	87	67	0	..	..	..	54	1	..
Murshidabad	Narail	Ditto	3	70	98	43	108	..	66	..	..	33	2	..
	Sadar	Honorary	2	531	551	67	680	16	83	2	..	205	1	..
	Lalbug	Ditto	1	55	65	70	146	33	100	..	..	55	3	..
	Jangipur	Ditto	1	91	90	62	271	5	..	..	..	91	3	..
Khulna	Kandi	Ditto	1	90	114	32	200	37	100	..	..	90	2	..
	Sadar	Honorary	14	91	97	33	204	..	100	..	..	82	2	..
	Bagerhat	Ditto	1	151	172	40	323	13	100	7	..	151	2	..
	Satkhira	Ditto	2	103	278	27	259	19	..	..	..	96	1	..
Total			53	8,417	9,071	68	18,058	5	46	162	9	150	2	5
Total for 1891-92			494	7,115	8,400	71	18,921	4	49	144	6	143	2	4

The average number of cases disposed of by each stipendiary officer was 405, and this number was considerably exceeded in the Sealdah Court of the 24-Parganas, the figures for which must, however, include a large number of petty offences, the number of cases being almost twice as great as the number of witnesses examined. Criminal work appears to be lightest at Barrackpore and at the sadar station of the Murshidabad district. The number of witnesses detained over two days exceeded 10 per cent. of the total number examined at Magura, while at Barasat the ratio was as high as 22 per cent. There was considerable improvement in the promptitude with which cases were disposed of, the percentage of such cases remanded six times and more being slightly above 1 for the whole division. At Magura, however, the percentage was 15, and at the sadar station of Murshidabad 11, the Commissioner's observation that remands are sometimes granted too readily and for trivial causes being probably applicable to the Magistrates at these places. The number of witnesses to each case was highest in Jessore and Khulna. The figures showing the proportion of cases confirmed on appeal to the total appealed are very low in the 24-Parganas. At several centres 100 per cent. of the decisions appealed against were confirmed, while at others, and especially in the 24-Parganas, the percentages are extremely low. Of 108 cases appealed against, the Magistrates' decisions were confirmed in only 12 in one instance, in only one out of 30 in another instance, and in 7 out of 67 in a third. The figures showing number of decisions confirmed appear to have been compiled on a somewhat different principle to that adopted elsewhere, and do not include appeals rejected after hearing.

Honorary Magistrates disposed of 8,417 cases during the year as compared with 7,115 in the year before. At several centres, where a considerable amount of work was done, no witnesses were detained over two days, but at Lalbag and Kandi in Murshidabad over 30 per cent. of the witnesses examined were so detained, at Chuadanga the percentage was 27, and at Satkhira, Murshidabad (sadar), Bagerhat and 24-Parganas (sadar) it was over 10.

Attendance of Honorary Magistrates.

14. The following table shows the attendance of Honorary Magistrates:—

DISTRICT.	Number of Honorary Magistrates.	Number of times asked to attend.	Number of times actually attended.	NUMBER OF TIMES ABSENT		
				With leave or notice.	Without leave or notice.	Total.
1	2	3	4	5	6	7
24-Parganas ...	133	2,607	1,755*	413	443	856
Nadia ..	104	1,693	1,794	74	825	899
Jessore ...	96	1,045	633	172	240	412
Murshidabad ...	81	1,155	711	192	252	444
Khulna ...	35	788	569	144	75	219
Total. ...	449	8,288	5,462	995	1,835	2,830

\* Four days, excess attendance.

The Commissioner makes the following remarks:—

“The great difficulty in giving more extended powers and more important cases to Benches of Honorary Magistrates is the irregularity in attendance, and consequent difficulty in getting the same Bench together a second time to try an adjourned case. It is for this reason, and not from any want of capacity, that the Benches seldom get beyond the trial of petty cases which can be disposed of at one sitting.”

Sessions. 15. The following table shows the result of sessions trials :—

District.	Number of cases pending at commencement of the year.	Number continued during the year.	Total for disposal.	Number disposed of.	Number in which convictions obtained.	Number in which sentence modified &c.	Number acquitted by Sessions Judges.
1	2	3	4	5	6	7	8
24-Parganas ... ..	35	68	103	96	68	3	23*
Nadia ... ..	3	44	47	44	30	...	14
Jessore ... ..	13	6	78	52	29	6	14†
Murshidabad ... ..	2	35	37	34	22	2	12
Khulna ... ..	5	43	48	45	35	9	10

\* Five cases otherwise disposed of.  
† Three ditto ditto.

Fines. 16. The amount of fines imposed, remitted and collected is given below :—

District.	Balance outstanding at commencement of the year.	Amount imposed during the year.	Total demand.	Amount collected during the year.	Amount remitted or written off during the year.	Total collected and remitted.	Balance outstanding at the end of the year.
1	2	3	4	5	6	7	8
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
24-Parganas ... ..	19,151 0 11	61,302 13 7	81,353 13 6	56,882 12 2	10,758 4 6	67,640 0 8	13,812 13 10
Nadia ... ..	3,175 4 9	19,105 8 3	22,341 13 0	15,610 3 2	5,692 3 3	20,651 4 5	1,690 0 7
Jessore ... ..	3,278 11 0	11,738 9 6	18,017 4 6	12,054 7 6	4,038 3 0	16,092 10 0	1,924 10 6
Murshidabad ... ..	2,988 2 9	10,145 9 0	13,133 11 9	10,002 11 9	1,337 14 0	11,340 9 9	1,793 2 0
Khulna ... ..	3,311 11 9	8,491 6 3	11,803 5 0	8,603 15 3	2,294 8 6	10,898 7 9	904 11 3
Total ... ..	31,904 15 2	1,14,844 14 7	1,46,749 14 9	1,03,163 1 4	23,461 1 3	1,26,624 2 7	21,125 12 2

Registration. 17. The following table shows the working of registration offices in this Division during the year :—

District.	Class of Registration office.	Number of offices.	Number of documents registered.	Average per office.
1	2	3	4	5
24-Parganas ... ..	Special ... ..	1	4,187	4,187
	Rural ... ..	17	68,833	4,049
Nadia ... ..	Special ... ..	1	3,015	3,015
	Rural ... ..	10	19,226	1,923
Jessore ... ..	Special ... ..	1	6,477	6,477
	Rural ... ..	18	76,443	4,247
Murshidabad ... ..	Special ... ..	1	1,540	1,540
	Rural ... ..	5	9,775	1,955
Khulna ... ..	Special ... ..	1	7,254	7,254
	Rural ... ..	11	32,808	2,982
Total ... ..	Special ... ..	5	22,473	4,495
	Rural ... ..	61	207,085	3,395
Total for 1891-92 ... ..	Special ... ..	5	21,116	4,223
	Rural ... ..	61	180,397	2,957

The increase in the number of registrations which occurred chiefly under the heads of sales, mortgages, and bonds is common to all the districts, and is attributed partly to the fact that circumstances compelled many among the lower classes of people to sell or mortgage their petty holdings, and partly, it is said, to the increasing popularity of the registration system.



18. The demand, collection, and balance of Land Revenue, Road cess, and Zamindari Dāk cess in each district are shown in the following table, the three classes of estates against Land Revenue being—

- I.—Permanently-settled estates.  
 II.—Temporarily-settled estates.  
 III.—Estates held direct by Government.

DISTRICT.	Class of demand.	Class of estates.	Number of estates.	DEMAND.		COLLECTIONS OF 1892-93.		BALANCE ON 1st APRIL 1893.		REMARKS.	
				Current.	Arrear.	Current.	Arrear.	Current.	Arrear.		
1	2	3	4	5	6	7	8	9	10	11	
24-Parganas...	Land revenue	I ... ..	1,591	Rs. 12,70,985	Rs. 4,131	Rs. 12,58,400	Rs. 4,131	Rs. 12,585	.....	Rs. 188 remitted.	
		II ... ..	156	79,177	3,390	71,282	3,095	7,879	180	4,712 do.	
		III ... ..	45	2,58,245	49,721	2,16,298	18,738	39,516	19,894		
	Total			1,792	15,08,997	48,242	15,45,800	25,962	69,353	19,514	
	Road cess	Estates ... ..	2,551	2,12,022	24,403	1,85,670	24,162	26,352	238	3 do.	
		Rent-free tenures	11,229	22,141	12,813	14,697	9,768	7,534	2,927	134 do.*	
		Hata and faira	221	2,525	.....	1,910	.....	594	125	21 do.	
	Zamindari dāk	Estates	1,616	6,607	1,074	6,482	894	124	184		
		Total		18,51,682	86,512	17,54,559	60,776	64,958	22,803		
	Nadia	Land revenue	I ... ..	2,196	8,15,252	1,727	8,13,300	1,727	1,682	.....	837 do.
II ... ..			230	60,865	4,198	61,054	2,867	2,211	414	179 do.	
III ... ..			89	15,928	2,176	14,017	1,640	1,911	342		
Total			2,405	8,91,045	8,006	8,92,361	6,293	5,784	756		
Road cess		Estates	2,893	1,16,143	6,015	1,10,535	6,004	5,579	11	29 do.	
		Rent-free tenures	7,079	11,529	102	10,214	864	1,310	68	6 do.	
		Zamindari dāk	722	9,098	102	7,780	86	1,600	1	73 do.	
Total				10,35,415	16,654	10,20,780	13,787	14,542	836		
Nura		Land revenue	I ... ..	2,421	8,50,227	5,618	8,46,287	5,565	3,040	53	169 do.
			II ... ..	89	3,777	1,819	2,682	1,677	1,011	87	55 do.
	III ... ..		73	4,739	791	4,117	651	592	93		
	Total			2,583	8,58,743	8,236	8,53,116	7,893	5,648	203	
	Road cess	Estates	3,205	1,57,235	38,000	1,25,509	31,207	29,312	7,701	2 do.	
		Rent-free tenures	12,025	23,247	19,328	19,740	16,281	9,185	1,070	1,077 do.	
		Zamindari dāk	1,102	8,008	.....	7,206	890	802	24		
	Total			.....	10,47,233	66,468	9,96,571	55,261	44,842	9,988	
	Murshidabad	Land revenue	I ... ..	2,312	10,11,403	3,706	10,06,738	3,706	4,727	.....	1,360 do.
			II ... ..	76	27,048	4,367	25,459	4,807	1,580	.....	
III ... ..			61	29,574	12,117	20,051	6,922	9,923	3,835		
Total			2,449	10,68,427	20,190	10,62,248	14,995	16,239	3,835		
Road cess		Estates	2,953	1,21,059	9,985	1,13,795	8,065	8,164	1,021		
		Rent-free tenures	8,909	31,324	19,235	3,186	8,340	8,138	12,881		
		Zamindari dāk	956	5,093	599	5,560	271	124	238		
Total			.....	12,07,463	49,919	11,74,146	29,690	32,605	18,879		
Khulna		Land revenue	I ... ..	761	4,94,800	2,705	4,82,085	2,705	12,211	.....	86 do.
			II ... ..	174	1,32,944	14,129	1,21,920	14,129	11,915	.....	
	III ... ..		82	10,364	1,371	12,424	1,224	3,854	9		
	Total			907	6,44,204	18,067	6,16,138	18,058	27,980	9	
	Road cess	Estates	995	1,29,018	15,715	1,17,600	14,534	11,924	781	62 do.	
		Rent-free tenures	6,236	10,463	8,663	5,201	5,590	4,291	2,800	4 do.	
		Zamindari dāk	843	8,344	28	8,258	26	86	2		
	Total			.....	7,91,651	41,929	7,47,410	38,208	44,225	3,640	
	GRAND TOTAL			.....	69,33,144	2,60,000	66,91,048	1,97,712	2,31,232	50,215	Total remission Rs. 9,007.
	Grand total of 1891-92			.....	68,48,678	2,98,011	66,55,632	2,17,167	1,93,945	66,008	Total remission Rs. 15,432.

\* Excluding an advance collection of Rs. 5,734.

In regard to Land Revenue, the percentage of collections to demand, both arrear and current, in estates of classes I and II was nearly the same as in the previous year, that is to say, collections in permanently-settled estates were good, while those in temporarily settled estates did not reach the prescribed standard. In the case of estates held direct by Government, the Commissioner describes the results as decidedly bad, and the Lieutenant-Governor agrees with him, the percentage of total collections on total demand being only 78.4. The collections in this class were worst in the districts of the 24-Parganas, Khulna, and Murshidabad, and though the results may be partly due in the 24-Parganas to special causes connected with the Government estates of Port Canning, and in the other two districts to the impoverished condition of the raiyats, the Lieutenant-Governor entirely agrees with the Commissioner that there is great

room for improvement in the management of this class of estates, an improvement which could be effected if the Deputy Collectors nominally in charge did not leave so much to their subordinates, and if Collectors and the Commissioner in their tours were careful to examine the khas tahsil offices and to scrutinise the accounts.

In the case of cesses the collection of current demands shows some improvement, while the collection of arrears has fallen off. The revaluations of Nadia and Murshidabad were completed during the year, the increase in Nadia being Rs. 5,27,164 in the amount of valuation, and Rs. 32,157 in the annual cess demand, and in Murshidabad Rs. 2,63,785 in the amount of valuation and Rs. 16,980 in the annual demand.

Certificates.  
were disposed of.

19. The following statement shows the number of certificates issued during the year, and how they

DISTRICT.	Department.	Number pending at beginning of year.	Number issued during year.	Total for disposal.	Amount of certificates.	Number disposed of during year.	Amount realized.	Number pending at close of year.
1	2	3	4	5	6	7	8	9
24-Parganas ...	All kinds under section 5, Act VII (B.O.) of 1880	3	5	8	Rs. 1,430	8	Rs. 1,430	.....
	To realize khas mahal demand	220	434	654	17,066	515	14,982	180
	Embankment	1	18	19	595	11	188	8
	Road Cess	2 218	2,376	4,594	49,974	3,232	44,272	1,373
	Wards'	812	245	1,057	652,501	527	25,400	530
	Miscellaneous	61	136	197	16,597	149	13,323	49
	Total	3,315	3 214	6,529	1,38,772	4,433	98,574	2,097
	Total for 1891-92	3,302	4,829	8,131	1 29,823	4,816	68,732	3,815
	General Department	300	477	777	48,080	640	30,219	128
	Road Cess	236	806	1,042	37,405	1,029	22,049	113
Nadia ...	Total	636	1,283	1,919	85,404	1,678	52,268	241
	Total for 1891-92	408	2,297	2,703	96,865	2,067	36,892	636
	All branches	6,338	3,423	9,761	1 18,484	8,137	65,146	1,624
Jessore ...	Total for 1891-92	5,215	6,836	12,051	1,32,483	5,743	58,408	6,338
	Under section 5, Act VII	4	17	21	1,783	19	1,333	2
	Khas Mahal	154	163	317	5 116	247	1,902	70
Murshidabad ...	Road Cess, cess fine and other cesses	548	658	1,206	20,327	741	9,324	465
	Miscellaneous including Wards'	124	167	291	9,890	143	1,681	148
	Total	830	1,005	1,835	37,125	1,130	14,200	685
Murshidabad ...	Total for 1891-92	1,204	1,234	2,438	57,542	1,694	33,188	874
	Arrear of rent due to Government under section 7	9	126	135	17,343	124	16,994	11
	Road Cess	1,104	1,886	3,090	15,473	1,591	11,132	1,489
Khulna ...	Wards'	208	500	508	21,023	311	16,676	197
	Other sorts	149	176	325	2,965	271	1,950	49
	Total	1,554	2,488	4,042	57,404	2,297	46,846	1,745
Khulna ...	Total for 1891-92	889	3,023	3,905	90,035	2,351	62,806	1,554
	GRAND TOTAL	12,673	11,413	24,086	4,37,270	17,094	2,77,034	6,392
	Grand total for 1891-92	11,039	18,219*	29,258	5,06,747	16,541	2,60,110	12,717

\* Shows the number of certificates filed during year.

The number of cases pending at the close of the year was smaller than the number pending at its beginning in all districts except Khulna, where it rose from 1,554 to 1,745. The results were especially good in Jessore, where 8,137 cases were disposed of during the year, the number of pending cases being reduced from 6,338 to 1,624.

20. The following table indicates that the files of land acquisition cases were reduced in the 24-Parganas, Nadia and Murshidabad, while the number of cases pending in Jessore and Khulna increased. The number of pending cases is still large in the 24-Parganas.

Land acquisition.

DISTRICT.	Number of cases pending at commencement of year.	Number of cases instituted.	Total number of cases for disposal.	Number of cases disposed of.	Balance pending at end of year.	Date of oldest pending cases.	REMARKS.
1	2	3	4	5	6	7	8
24-Parganas	95	38	133	45	81*	September 1889	* Seven cases abandoned.
Nadia	5	...	5	5†	...	...	† In one case the declaration was cancelled during the year.
Jessore	2	3	5	1	4	3rd March 1892.	
Murshidabad	8	1	9	5	4	4th and 8th August 1891.	
Khulna	7	5	12	1	11	2nd November 1888	Column 5. The case was withdrawn.
Total	117	47	164	57	100		

21. Of the estates under the management of the Court of Wards during the year, the most important are those of the minor Wards Estates. Barada Prosad Chaudhuri of Bhawanipur in the 24-Parganas, and of the minor Ashutosh Nath Roy of Kasimbazar in Murshidabad. The management of the former estate has undergone great improvement in the hands of the present Manager, and is now on a satisfactory footing. Though the outstanding balance is still heavy, there was some improvement in collections, which amounted to Rs. 1,72,876 out of a total demand of Rs. 4,46,268, the balance after deducting remissions being Rs. 2,19,283. Rs. 18,400 were sanctioned for works of improvement, such as clearing jungle, construction of roads, excavation and re-excavation of tanks and reclamation of land in the Sundarbans tracts, about 700.

The Kasimbazar estate is the most important in the Division. The collections were not satisfactory, amounting to Rs. 3,22,239 out of a total demand of Rs. 5,97,184. The Manager of the estate attributes the short collections mainly to scarcity in pargana Sarail. The Survey and Settlement under Chapter X of the Tenancy Act of that pargana were completed and resulted in an increase of Rs. 57,000 in the previous rental. The estate contributed during the year Rs. 6,150 towards the maintenance of schools and patshalas, and Rs. 5,866 to charitable dispensaries, and spent Rs. 30,341 for works of improvement and Rs. 306 on agricultural improvements and experiments.

Excise. 22. The more important excise statistics are included in the following table:—

DISTRICT.	COUNTRY SPIRITS.				GANJA AND BHANG.				OPIMUM.			
	Number of shops.	Licence fees.	Gross sales.	Total receipts.	Number of shops.	Licence fees.	Gross maunds.	Total receipts.	Number of shops.	Licence fees.	Gross maunds.	Total receipts.
	1	2	3	4	5	6	7	8	9	10	11	12
		Rs.		Rs.		Rs.	Ms.	Rs.		Rs.	Ms.	Rs.
24-Parganas	90	66,775	21,455	1,45,247	143	36,097	234	81,197	105	20,171	104	1,06,531
Nadia	45	20,292	7,114	44,320	61	17,219	46	27,416	49	10,486	31	36,332
Jessore	31	12,307	4,406	29,178	66	18,567	52	30,582	40	10,381	24	30,446
Murshidabad	31	14,010	5,081	31,708	46	18,901	65	33,346	33	13,161	51	55,595
Khulna	29	11,601	4,624	26,370	51	13,822	44	24,126	38	6,313	20	28,650
Revenue from all sources.					Rate per head of population.							
		Rs.				Rs. A. P.						
24-Parganas	...	...	...	4,18,010	24-Parganas	...	...	...	...	0	3	6
Nadia	...	...	...	1,16,547	Nadia	...	...	...	...	0	1	1
Jessore	...	...	...	90,370	Jessore	...	...	...	...	0	0	9
Murshidabad	...	...	...	1,56,561	Murshidabad	...	...	...	...	0	2	0
Khulna	...	...	...	75,773	Khulna	...	...	...	...	0	1	0
Total				8,58,361	Total				...	0	1	11
Total for 1891-93				8,41,488	Total for 1891-93				...	0	1	6

The consumption of excisable articles is largest in the 24-Parganas; but all the districts contributed to the increase of revenue except Murshidabad, where consumption diminished owing to the high retail price of country spirits which has had the effect of making the poorer people take to tari or pachwai.

## Education.

23. The following table gives statistics of schools under public management:—

DISTRICT.	Class of schools.	Number of schools.	Number of pupils on rolls.	Cost.						Cost per head of pupils.	Population.	Number of boys of school-going age.	Percentage of boys on rolls to boys of school-going age of Public Instruction's Report.
				Provincial.	District Board.	Municipality.	Fees.	Other.	Total.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14
24-Parganas	High ...	32	5,447	Rs. 18,727	Rs. 9,577	Rs. 2,692	Rs. 56,700	Rs. 15,694	Rs. 81,131	Rs. A. P. 18 0 10	.....	.....	.....
	Middle ...	114	7,623	8,185	21,071	3,965	28,383	19,020	87,243	8 15 0	.....	.....	.....
	Primary ...	1,804	54,911	18,235	...	...	73,257	27,684	1,44,812	2 10 2	.....	.....	.....
	Special ...	19	250	3,403	...	120	763	10,865	14,348	59 6 8	.....	.....	.....
	Total ...	1,769	67,731	48,589	31,246	6,177	1,59,103	72,007	3,19,024	4 11 0	1,392,033	143,392	42.6
Total for 1891-92		1,893	68,425	46,240	30,896	6,619	1,60,421	75,293	3,19,371	4 10 5	.....	.....	43.1
Nadia	High ...	15	2,903	11,980	...	...	40,367	1,681	54,007	18 9 7	.....	.....	.....
	Middle ...	71	5,261	2,870	9,853	1,611	23,326	11,635	48,696	9 4 1	.....	.....	.....
	Primary ...	743	20,713	4,400	10,473	965	22,220	18,760	56,754	2 11 10	.....	.....	.....
	Special ...	8	123	2,427	...	...	...	4,904	7,381	59 12 2	.....	.....	.....
	Total ...	837	20,000	21,712	20,326	1,906	85,903	30,900	1,01,807	5 12 0	1,044,105	120,522	21.9
Total for 1891-92		758	24,061	21,658	21,340	2,026	82,729	41,902	1,09,604	6 12 8	.....	.....	18.8
Jessore	High ...	11	1,891	7,039	...	30	21,001	6,236	31,299	18 2 2	.....	.....	.....
	Middle ...	73	4,676	1,313	10,400	163	15,930	11,072	40,270	8 12 0	.....	.....	.....
	Primary ...	907	27,627	1,606	14,083	272	35,953	7,075	57,944	2 1 9	.....	.....	.....
	Special ...	26	267	977	...	...	...	...	977	3 10 2	.....	.....	.....
	Total ...	1,107	34,160	10,789	24,973	467	72,984	24,286	1,28,540	3 14 7	1,388,627	141,200	22.4
Total for 1891-92		982	29,002	11,191	25,505	380	69,687	24,560	1,31,263	4 8 5	.....	.....	19.3
Murshidabad	High ...	12	2,180	14,715	240	100	16,118	20,922	52,095	23 14 4	.....	.....	.....
	Middle ...	39	3,020	1,294	4,367	1,243	14,253	8,600	22,371	7 6 6	.....	.....	.....
	Primary ...	608	17,308	1,062	11,329	1,611	21,888	3,960	30,690	2 4 10	.....	.....	.....
	Special ...	6	120	13,440	...	390	...	129	13,968	108 4 5	.....	.....	.....
	Total ...	665	22,637	30,430	15,926	3,344	44,973	33,641	1,28,514	5 16 8	1,350,946	90,840	24.1
Total for 1891-92		656	21,482	31,394	14,685	3,191	39,575	35,020	1,23,705	5 12 2	.....	.....	23
Khulna	High ...	8	1,623	3,620	...	...	15,826	4,407	23,415	17 11 1	.....	.....	.....
	Middle ...	71	4,109	1,347	9,129	120	14,253	11,728	36,677	8 12 1	.....	.....	.....
	Primary ...	1,800	39,015	2,429	12,208	301	45,022	36,028	94,772	2 16 0	.....	.....	.....
	Special ...	24	148	1,111	...	...	...	...	1,111	7 6 11	.....	.....	.....
	Total ...	1,409	37,685	8,507	21,397	511	73,301	52,237	1,55,873	4 2 3	1,177,659	92,007	38.5
Total for 1891-92		1,386	36,543	7,966	22,276	576	75,604	28,216	1,34,597	3 10 11	.....	.....	37.8
Total of Division	High ...	78	13,344	56,083	240	130	1,40,502	44,960	2,54,935	19 1 8	.....	.....	.....
	Middle ...	368	24,640	14,700	13,806	4,631	60,859	62,001	2,16,156	8 12 2	.....	.....	.....
	Primary ...	5,262	1,72,474	27,640	69,824	7,194	1,96,740	93,514	3,04,232	2 9 4	.....	.....	.....
	Special ...	83	756	21,606	...	510	763	15,536	38,315	50 10 10	.....	.....	.....
	Grand Total ...	5,781	1,91,123	1,20,024	1,13,870	12,465	4,36,164	2,30,091	9,02,618	4 11 7	7,853,503	593,448	30.1
Grand total for 1891-92		5,675	1,90,636	1,18,248	1,14,713	12,632	4,28,076	2,04,691	8,78,690	4 13 9	.....	.....	28.6

The number of schools under public management increased from 5,075 to 5,781, and the number of pupils from 180,636 to 191,123. The increase occurred chiefly in the number of middle English, lower primary, and female schools, the proportion of boys at school to boys of school-going age was greatest in the 24-Parganas (42.6) and Khulna (38.5) and least in Nadia (21.9). In municipalities the tendency to spend too large a proportion on secondary education is even more noticeable, but this subject has been so fully dealt with in recent orders that no further remarks are required here.

The Muhammadans, who form 49.37 per cent. of the total population, contributed only 28.5 per cent. of the total number of pupils, though the year showed improvement in this respect.

The total number of girls at school increased from 11,284 to 13,120, an indication that female education is making progress in this Division.

The number of Sanskrit tols in the Division increased from 59 with 558 pupils in the previous year to 72 with 749 pupils in the year under review. It

is stated by the Commissioner that the increase, which is chiefly in Nadia, is apparently due not so much to a desire among the Hindus for the revival of their ancient literature as to the encouragement held out by Government in the shape of stipends to the pandits.

Dispensaries.

24. The following table gives statistics concerning the dispensaries in the Division:—

DISTRICT.	Number of dispensaries.	INCOME FROM—					DAILY AVERAGE PATIENT—		Ratio per cent. of outdoor patients to total population.
		Government.	District Board.	Municipality.	Subscription.	Total.	In-patients.	Out-patients.	
1	2	3	4	5	6	7	8	9	10
24-Parganas ... ..	20	Rs. 2,042	Rs. 770	Rs. 10,802	Rs. 29,160	Rs. 42,834	78'03	685'72	4'4
Nadia ... ..	8	000	200	7,376	85	8,321	16'00	210'35	1'6
Jessore ... ..	6	500	2,190	2,434	837	6,301	6'98	130'21	0'98
Murshidabad ... ..	7	78	.....	6,323	10,762	17,163	52'77	340'38	3'8
Khulna ... ..	5	1,810	385	1,756	1,302	5,343	4'6	125'30	1'4

The total number of dispensaries during the year increased from 43 to 46. The ratio of the outdoor patients to the total population appears to be very low in Jessore, Khulna, and Nadia.

25. The third general election of members of the District and Local Boards was held during the year. The District Officers, with the exception of the Magistrate-Collector of Murshidabad, report more or less favourably regarding the interest evinced by the members of District Boards in their work. In Murshidabad the members are reported to be apathetic. The Commissioner states that he has formed no definite conclusions in regard to the efficiency of District Boards as administering bodies; while his impressions are unfavourable, he suspends judgment until he has seen more of their work.

As regards Municipalities the Commissioner writes:—

“Party-feeling still exists in most of the municipalities in this Division, which, coupled with improper favouritism and fear of unpopularity, plays a large part in all municipal arrangements. None of the municipalities in the district of Nadia are free from party factions, and Krishnagar may be said to have been convulsed thereby during the year under report. The same state of affairs obtains in Maheshpur in the district of Jessore, and in Satkhira in Khulna, which comes to light in connection with the management of their affairs.”

Bad management appears to have reached a climax in Santipur, the state of which is described as scandalous and discreditable to the district administration, an officer of Government having been in charge as Chairman. The Lieutenant-Governor notices with pleasure the good work which is being done by Babu Umesh Chandra Ghose, the present Chairman of the Jessore Municipality, who is said to devote much of his time to his voluntary duties. The Khulna Municipality sustained a great loss in the death of the late Chairman, Dr. K. D. Ghose, who is reported to have shown both energy and judgment in his conduct of affairs.

26. There are not in any of the districts of this Division, regularly organized political institutions and public feeling. public associations, social or political, in which members are enrolled under definite rules and required to pay subscriptions. The Commissioner writes:—

“Public feeling has been, as usual, confined to a small minority, consisting of the educated class and chiefly of pleaders. The masses of the people do not concern themselves with the discussion of Government measures. What is called public feeling as regards the districts on matters of general interest, usually follows the lead of Calcutta. The only subjects which evoked strong excitement among the vociferous classes were the Chaukidari Amendment Bill, the Bengal Municipal Bill, and the Jury Notification. The Land Acquisition Amendment Bill was also criticised unfavourably. Among minor measures, the efforts made by promoters of the Association for the Higher Training of Young Men were not looked upon with favour. The rules regarding the appointment of Sub-Inspectors of Police by competitive examination met with general approbation, as being likely to lead to the appointment of a better class of men in the Police. The transfer of a portion of the Barrackpore and Dum-Dum sub-divisions, lying outside cantonments, to Barasat, evoked some local feeling.”

27. Of the zamindars of the Division, the Nawab Bahadur of Murshidabad, and the Maharani Surnomoyee of Kasimbazar, distinguished themselves as usual by their munificence. Among others Babu Giriya Prasanno Mookerjee of Gobardanga in the 24-Parganas, Raja Pramatho Bhusan Roy of Naldanga in Jessore, and Rao Jogendra Narayan Roy of Lalgola in Murshidabad, maintained their reputation for public spirit and benevolence.

28. The Lieutenant-Governor has to thank Messrs. Beames and Westmacott for their administration of the Division, and the latter for his full and careful Report. The remarks on character of officers will be communicated to the Appointment Department.

By order of the Lieutenant-Governor of Bengal,

M. FINUCANE,  
*Offg. Secretary to the Govt. of Bengal.*

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**RESOLUTION ON THE ADMINISTRATION REPORT OF THE  
CALCUTTA MUNICIPAL CORPORATION FOR  
THE YEAR 1892-93.**

MUNICIPAL DEPARTMENT—MUNICIPAL.

*Calcutta, the 20th November 1893.*

RESOLUTION No. 3631M.

READ—

The Administration Report of the Calcutta Municipal Corporation for the year 1892-93.

Read again—

The Report for 1891-92 and the Resolution recorded by Government thereupon.

In the Resolution on the Administration of Calcutta by the Municipal Commissioners during 1891-92 the Lieutenant-Governor pointed out that for three years in succession the report had been submitted some time after the due date, and he regrets to find that he must make the same complaint again, since the report, which was due on the 1st August, did not reach Government till the 8th September. It does not contain the introductory chapter, which was an important feature of the last report, and was commended in the Resolution upon it as a useful innovation. But, on the other hand, there is a further improvement in the form of the report, and its structure has been concisely explained in an introductory paragraph which is an important contribution to its value, while a useful preliminary chapter indicates the leading features of the year's administration besides containing a *précis* of a paper read by the Hon'ble Mr. Cotton, C.S.I., at the International Congress of Hygiene and Demography held in London in August 1891. Altogether, the Lieutenant-Governor congratulates the Commissioners on the improvements visible in the form and the manner of their report.

2. During the year under review two officers filled the post of Chairman, for Mr. Lee was on privilege leave for three months during 1892 and went on furlough on the 25th March 1893: Mr. Ritchie filled his place on each occasion, and has submitted the present report. The Commissioners suffered an irreparable loss during the year in the sudden deaths of Sir Henry Harrison, whose name will always remain inseparably connected with Municipal Administration in Calcutta, and of Pandit Prannath Saraswati, a Commissioner whose services to the Corporation were many and conspicuous. Since the close of the year death has removed from among them Nawab Abdul Latif, C.I.E., and Mr. John Cowie, for many years Secretary to the Commissioners: these are losses which would be felt heavily by any public body.

3. In the matter of the number of meetings Government has never had any cause to complain of the Corporation of Calcutta. The Commissioners are assiduous in their attendance at meetings, and thus furnish an excellent example to all municipal bodies. There are 75 Commissioners, of whom 50 are elected and 25 nominated, and the executive administration of the details of Municipal business is entrusted in the first instance to a General Committee of eighteen, in addition to seven Standing Committees, as well as to such special committees or sub-committees as necessity may call into existence. In the year under review there were 27 general meetings of the Commissioners, 59 meetings of the General Committee, 84 meetings of other Standing Committees, and 61 meetings of special committees and sub-committees, making 231 in all. These figures, though a good deal below those for 1891-92

(260), imply a great amount of consultation over the many important subjects which transpired during the year. Thirty Commissioners as against twenty-two in 1891-92 attended more than 50 meetings, and four, viz., Maulvi Badruddin Haider (122), Babu Nolin Behari Sarcar (111), J. Ghosal, Esq. (111), and Babu Pashupati Nath Bose (110), were present on more than 100 occasions. Among the elected Commissioners, the percentage of attendance was 60·5, and the nominated Commissioners as a whole attended 46·5 times out of every 100 for which they were summoned. The general percentage of attendance was 57·2, marked improvement on 1891-92, when it was 47.

4. At these meetings much of the matter under discussion was necessarily of merely ephemeral importance, but besides the numerous projects examined in detail by the Standing and Special Committees, several subjects of more permanent interest were also considered, such as the memorial to Sir Henry Harrison, the contribution to the Calcutta Public Library, the regulation and supervision of *kalisthans*, the further adoption of incinerators, the proposal to establish a municipal market in the Northern Division, the request of Govern-

ment that a larger sum should be expended on primary education, and the possibility of doing more to provide for the medical needs of the population in the south of the city. Most of these questions have already been disposed of, and the Lieutenant-Governor does not desire to say anything in this place, except as regards three of them. The regulation of the *kalisthans* is a matter which calls for early disposal, and His Honour, while approving the desire of the Commissioners to deal thoroughly with the subject, trusts that the measures adopted will be prompt as well as thorough. On the other hand, the withdrawal of the annual grant of Rs. 8,000 hitherto made to the Calcutta Public Library is, in Sir Antony MacDonnell's opinion, an ill-advised economy. The maintenance of such an institution befits the good name and the intelligence of the Corporation. It may be that there was in the withdrawal no positive breach of contract, but it undoubtedly involved the abandonment of pledges formally given to the Committee of the Library and fulfilled for some years, while, apart from that, the refusal to assist in maintaining a public free library deprives the rate-payers of Calcutta of a privilege which is enjoyed by many townships elsewhere which are not for a moment to be compared in wealth or importance with this great city. The plea in justification of this policy is the same as that advanced for failing to make any adequate provision for the relief of the sick, viz., want of funds. Sir Antony MacDonnell has already stated elsewhere that he admits the present force of this argument, but he would be glad to learn that the Corporation are disposed to reconsider both these matters.

5. Large as the income of the Calcutta Municipality is, the Commissioners have for many years been accustomed to borrow largely for purposes of proper and useful expenditure, and the prices which their stocks command in the market and the facility with which a loan is floated indicate the confidence of the public in the solvency of the Corporation. On the 1st April 1892 the loan liability of the Commissioners was as follows:—

		Rs.	A.	P.
Unpaid balance of 6 per cent. debenture loans	...	8,500	0	0
5 per cent. debenture loans	...	1,44,01,900	0	0
4½ ditto ditto	...	30,48,300	0	0
		1,74,58,700	0	0
Balance of consolidated loans from Government	...	55,80,467	13	9
Loan without interest from Port Commissioners	...	2,00,000	0	0
		2,32,39,167	13	9

No new loans were raised during the year under review, but the Commissioners were able to pay off Rs. 3,500 from the 6 per cent. debenture loans and Rs. 2,29,557-4-4 out of the consolidated loans from Government, so that on the 31st March 1893 their loan liability had been decreased by Rs. 2,33,057-4-4, and stood as follows:—

		Rs.	A.	P.
Balance of 6 per cent. debenture loans	...	5,000	0	0
5 per cent. debenture loans	...	1,44,01,900	0	0
4½ ditto ditto	...	30,48,300	0	0
		1,74,55,200	0	0
Balance of consolidated loans from Government	...	53,50,910	9	5
Loan from Port Commissioners	...	2,00,000	0	0
		2,30,06,110	9	5



To meet these liabilities the Commissioners held at the end of the year a sum of Rs. 8,13,601-14-9 in their reserve funds. As the borrowing power of the Commissioners, based upon the annual valuation, was during the year Rs. 3,20,68,090, it is apparent that they are still far from borrowing up to the full extent sanctioned by law.

6. The ordinary income of the Municipality, excluding the receipts from loans, which are necessarily occasional and should only be raised for special purposes, is derived from four main sources, viz., the general rate, the sewage rate, the water-rate, and the lighting rate. Certain miscellaneous receipts added to these brought the gross income of the Municipality in 1892-93 up to Rs. 43,00,431, against Rs. 42,25,054 in 1891-92. As the expenditure in 1892-93 was Rs. 43,63,638 as against Rs. 42,64,261 the outgoings in the latter year exceeded the receipts by Rs. 63,207 as against a similar excess of Rs. 39,207 in 1891-92. The principal items of receipts and expenditure in each year are compared below:—

<i>Receipts.</i>		1891-92.	1892-93.
		Rs.	Rs.
General rate at 9½ per cent.	...	16,07,146	16,14,107
Sewage rate at 2 per cent.	...	3,38,240	3,39,651
Water-rate at 6 per cent.	...	9,30,751	10,18,672
Lighting rate at 2 per cent.	...	3,38,436	3,39,560
Taxes on professions, &c.	...	5,25,113	5,36,614
Municipal Market receipts	...	1,22,478	1,27,221
Receipts from sale of water	...	86,805	98,347
Conservancy receipts	...	65,740	65,565
<i>Expenditure.</i>			
Interest on general loans	...	4,47,192	4,54,351
Contributions for repayment of loans	...	1,86,629	2,02,807
General establishment	...	3,88,022	4,03,580
General office expenditure	...	1,07,697	97,543
Road Department	...	4,34,383	4,35,580
Gowkhana	...	2,06,044	2,06,869
Conservancy	...	1,65,360	1,59,805
Bustee-cleaning	...	1,07,235	1,07,817
Sewage-rate charges...	...	2,79,976	2,67,404
Water-rate charges	...	10,84,278	11,11,942
Lighting-rate charges	...	3,65,147	3,78,336

As requested in the Resolution on the report for 1891-92, the principal variations from year to year and those between the actuals and the estimate have been explained in detail in the report.

7. The sum of the rates now realized is equivalent to a consolidated rate of 19½ per cent. on the annual value of house property in Calcutta. Efforts were made during the debates on the budget of 1893-94 to raise this consolidated rate to 20 per cent., but the majority of the Commissioners were opposed to the increase, and it was not carried out. But in the Lieutenant-Governor's opinion this additional half per cent. of taxation, which is estimated to bring in an extra Rs. 87,000 per annum, cannot much longer be postponed, and he is glad to observe that the Commissioners in their report (paragraph 33) express a similar opinion. The fact seems to be that the Corporation of Calcutta, although it has not yet borrowed up to the limit allowed by law, has of late years borrowed more than is prudent, for the figures given by the Chairman show that the expenditure on interest and sinking funds has increased more rapidly than the income from ordinary sources to meet it. The constant revaluations and reassessments which are being carried on in different parts of Calcutta will speedily produce equilibrium, provided that no further expenditure on interest and sinking fund is necessitated by raising fresh loans; and it is therefore clearly the policy of the Commissioners to abstain from all borrowing operations, except for purposes of unavoidable urgency, until the gradual improvement of their income places them beyond the reach of difficulty.

8. It was one of the conditions made when the Suburban area was added to the town proper by Act II (B.C.) of 1888, that three lakhs of rupees out of the receipts from three of the great revenue funds should be devoted annually to the improvement of the

added area. What objects were to be considered as improvements and what payments were to be debited to the statutory contribution of three lakhs have for some time been doubtful questions. But in the year under report the opinion of counsel was taken, and it is hoped that the Commissioners will soon be in a position to make up their accounts. The amount which they should have expended between the 1st April 1889, and the 31st March 1893 was 12 lakhs, but as a matter of fact the expenditure has been only Rs. 10,51,102, and the rate-payers of the Suburan area have therefore a claim against the Corporation for the immediate expenditure of nearly a lakh and a half of rupees on improving the area in question. Moreover, the Lieutenant-Governor observes that Rs. 3,38,296 of the expenditure already incurred has been met, not from revenue as the law provides, but from capital. Now that the question is in a fair way to be decided, the Lieutenant-Governor has no doubt that the Commissioners will adjust their accounts and in future comply year by year with the requirements of the law.

9. The arrangements for the collection of the rates remain the same as in 1891-92. An officer styled the Collector collects in the first instance the amounts due from rate-payers in the town proper, while those falling due in the area added by Act II (B.C.) of 1888 are collected by the Joint-Collector. Chapter VI of the Act lays down in the clearest terms the manner in which these rates shall be collected. The consolidated rate is payable quarterly in advance on the 1st day of April, July, October, and January, and as soon as it is due the law makes it incumbent upon the Commissioners to present to each person liable to pay it a bill for the sum payable. If this bill is not paid within seven days of presentation, the Commissioners may cause to be served upon such person a notice of demand, and if within seven days from the receipt of this notice the amount is not paid, the Commissioners may recover the same with all costs by distress and sale of the defaulter's moveable property. These short and simple provisions if vigorously used would enable the Corporation to collect their rates with ease within each quarter, but the practice in vogue, with the sanction of the Commissioners, is to abstain from issuing the notices of demand until after the close of the

quarter to which they refer. The consequence is that a considerable proportion of the demand is three months in arrears, the Commissioners thus voluntarily submitting for the greater part of the year to forego the use of large sums which are realizable, but which they will not realize. This subject was noticed in the Resolution on last year's report, and Sir Charles Elliott expressed the hope that the Commissioners would take steps to remedy the defect then pointed out. The Lieutenant-Governor is disappointed to find that this advice has not been followed, and that although as before some improvement was visible in the last quarter of the year, no effort has been made to place the collection of rates upon a proper footing. "The prompt realization of public dues," as was remarked in 1892, "is absolutely essential to, and a distinctive feature of, vigorous municipal administration," and until the present injurious system of unnecessary indulgence is abandoned, His Honour cannot consider the administration of the Municipal Commissioners in this respect as efficient.

10. The faultiness in the system of collection is reflected in the details of its working, as might be expected. Out of a gross demand of the consolidated rate amounting to Rs. 36,38,959, only Rs. 31,03,096 were realized by the Collector and Joint-Collector, giving a joint percentage of collection of 85·2. The principal figures for each officer separately are given below:—

Officer.	Demand.	Collected.	Remitted and cancelled	Transferred to assessor for further enquiry.	Transferred to warrant officer.	Total.	Balance.
1	2	3	4	5	6	7	8
Collector	Rs. 29,07,942	Rs. 25,77,173	Rs. 44,152	Rs. 37,605	Rs. 2,72,975	Rs. 29,11,806	Rs. 66,176
Joint-Collector	6,40,977	5,25,923	21,323	15,374	63,110	6,25,738	15,238

These statistics show that the Collector realized 85·9 per cent. of the collections entrusted to him, and the Joint-Collector 82 per cent. The percentages for the Collector were 83·94 in 1890-91 and 86·40 in 1891-92, and for the

Joint-Collector 73·86 in the former and 76·66 in the latter year. The report further points out that the percentage of collections on realizable bills in 1892-93 was 89·17 in the case of the Collector and 87·01 in that of the Joint-Collector. There certainly is some improvement, but it is obvious that if the simple and summary procedure provided by the Act were carried out, the percentage of collections would rise higher still.

11. The animadversions passed upon the Warrant Officer's Department in 1892, both in the Chairman's note and in the Government Resolution, aided no doubt by the efforts of the Sub-Committee who considered the working of the Department, seems to have had a salutary effect, for the Warrant Officer succeeded during 1892-93 in disposing of 63·7 per cent. of the rate bills sent to him as against 52·1 per cent. in 1891-92, while his success with miscellaneous bills was still greater, since he collected 75·6 per cent. of them in place of a percentage of 38·7, and the sum in his hands for collection at the end of the year was Rs. 1,42,992, compared with Rs. 2,52,966 when the year commenced. The Lieutenant-Governor agrees with the Commissioners that, though these results are more satisfactory than before, there is still much room for improvement.

12. Besides the receipts from rates detailed above, the Corporation draws a large income from taxes and license fees, which are collected by what is known as the License and Registration Department. The figures for the main heads during the last two years are given below:—

	1891-92.	1892-93.
	Rs.	Rs.
(i) Tax on trades and professions ...	3,31,716	3,42,319
(ii) Do. on carriages and animals ...	1,42,144	1,42,510
(iii) Registration of carts and hackeries ...	71,837	71,750
(iv) Fees for removal of trade refuse ...	61,849	62,045
(v) Registration of bullock and cow-sheds	10	43
(vi) Ditto of hackney carriages and palkies ...	21,256	17,837
(vii) Miscellaneous receipts ...	446	475
Total ...	6,29,258	6,36,479

Owing to changes in the staff of the Department and the introduction of new men, the collections in certain parts of the town fell off a good deal, otherwise the increase under this head would have been greater. Under section 90 of the Calcutta Municipal Act, no person is allowed to exercise any of the specified trades, professions or callings, without a license for the year, under pain of a fine on conviction by a Magistrate. The Chairman reports that

License and Registration Department.

the obligation is generally neglected, but that it is not thought advisable to enforce the law to the letter. There may be special reasons for this leniency, one of which doubtless is that the procedure for enforcing payment involves prosecution before a Magistrate, but as it is clear from the report that the fees are recovered with difficulty, the Lieutenant-Governor cannot but think that the Commissioners would do well to enforce the law vigorously after due notice of their intention to do so has been given. There would doubtless be complaints of hardship at first, but the habit of punctual payment once established would probably continue to the great benefit of the licensees as well as the Commissioners. No comparison can be made between the number of registrations and the amount of fees levied under the Hackney Carriage Act during 1892-93 and those of the previous year owing to changes made in the date of registration, but there seems reason to think that the hackney carriage service is improving, and it is reported that the Commissioners have framed a set of bye-laws for the regulation of these vehicles.

13. As noted in paragraph 7 above, reassessment is continually going on in some part or other of the Calcutta Municipality, and so great and general is the advance in the value of house property that revision almost invariably leads to an enhancement of the assessment; in fact almost the whole of such decreased assessments as took place were due to the premises having been absorbed in the Harrison Road. Twenty out of the twenty-five wards of the town have now been revalued, and the result has been an increase in valuation of Rs. 22,93,652, subject, however, to the result of 2,561 objections, which were still pending

at the end of 1892-93. Assuming that all these are rejected, the valuation of the town on the 1st April 1893 would amount to Rs. 1,91,58,568: the confirmed valuation, *i.e.*, that arrived at after the disposal of objections, was on the same date Rs. 1,87,35,968, the valuation on the same date in 1879 having been Rs. 1,29,85,156. The large number of objections still for hearing is a serious matter, since a new valuation cannot take effect until all objections that may be taken "to it have been decided. Owing to the absence on leave for more than two months of the Vice-Chairman, whose duty it is to hear these objections, only 1,166 were disposed of during the year and 2,961 are still pending. The Lieutenant-Governor regrets that arrangements were not made for carrying on this work in the absence of the Vice-Chairman, and it is hoped that the outturn of work in the current year will be larger.

14. The Surveyor's Department, which prepares plans, estimates and draft declarations in connection with all projects in the town, was exceptionally busy during the year under report, and the services of the staff are warmly acknowledged by the Commissioners. The Lieutenant-Governor recognises that the demarcation into suitable lots of the surplus lands near the Harrison Road must have been an arduous and responsible undertaking. In the Lighting and Market Departments also activity was displayed. The expenditure on lighting amounted to Rs. 3,94,725; and as this exceeded the receipts from the lighting rate, the deficiency had to be made good by a grant of Rs. 54,715 to meet the deficit. The Municipal Market, on the other hand, yielded a net profit of more than a lakh of rupees. The large expenditure on printing was unfavourably criticised

Minor Departments. in the Resolution on last year's report, and the Commissioners appear to have endeavoured to introduce some reforms: the balance sheet propounded by the Commissioners is not intelligible to the Lieutenant-Governor, but it is clear that the result has been unsatisfactory, and that the Corporation has been ill-served by its employes in this department, which should be subjected to further investigation. The expenditure was Rs. 28,992 as against Rs. 22,520 in 1891-92.

15. The Corporation appeared as plaintiff during the year in an unprecedented number of civil suits, *viz.* 89, the highest number previously having been 28 in 1891-92. It is explained that this increase was "mostly owing to the number of defaulters who removed their goods to their *zanana* apartments in order to evade seizure, and who by this expedient compelled the officers of the Municipality to file suits under section 149 of the Act."

16. As defendant the Commissioners appeared only seven times. The most important case was a reference to the Civil Court by the Land Acquisition Deputy Collector. On this case the Commissioners write as follows:—

*Re 54, Clive Street.*— This property was acquired, under the Land Acquisition Act, for the purposes of the new Harrison Road. The compensation tendered by the Government Collector under Act X was Rs. 2,27,923. The claimants (Babus Damodar Das Burmon, Aghorenath Chatterjee and Kailas Chandra Dass) demanded Rs. 21,24,640 *plus* Rs. 50,000 which has been claimed by Baboo Damodar Das Burmon alone, on the ground that his property, No. 55, Clive Street, has been injuriously affected by the acquisition.

The claimants appealed against the decision of the Collector under Act X, to the District Judge of the 24-Parganas, who, with two Assessors, after hearing the case for 40 days, found that the offer of the Land Acquisition Collector was too low, and fixed the amount of compensation at Rs. 6,57,053, exclusive of 15 per cent. statutory allowance for No. 54, Clive Street, and Rs. 15,000 for No. 55, Clive Street. Under section 19 of the Land Acquisition Act, Babu Radhikaprosad Mookerjee was appointed Assessor on behalf of Government and Mr. J. C. MacGregor on behalf of the claimants. The amount of compensation for Nos. 54 and 55, Clive Street, was estimated by the former in his award at Rs. 4,75,000, and by the latter at Rs. 12,44,687.

Babu Aghorenath Chatterjee has appealed to the High Court from the Judge's decision, and a cross appeal has been filed by the Corporation.

17. In two previous Resolutions the Lieutenant-Governor has conveyed to the Commissioners his opinion that their yearly provision of Rs. 2,950 for primary education is quite inadequate to the necessities of the case, and in a separate communication he has suggested that Rs. 10,000 would be a suitable annual allotment. But the Commissioners have displayed a disinclination to adopt the suggestion.

Education.

In the year just passed, owing to a delay in passing the school bills for payment, they expended only Rs. 392 out of the total grant, and in the report under review the subject has been very briefly treated. In these circumstances the Lieutenant-Governor must now consider whether he ought not to adopt the alternative course laid before the Commissioners in the Resolution of last year, and withdraw the Government grant for the primary education of boys in Calcutta from the 1st of April 1894.

18. The improvement or removal of the numerous *bastis* which abound in Calcutta, and are a standing menace to the health of its inhabitants, has long occupied the attention of the Commissioners, and sections 251 and 270 of the Act deal particularly with this subject. From a sanitary point of view the

Basti improvement.

removal of these centres of disease is a distinct advantage, but there is more than one aspect of this question, and the remarks of the Commissioners on the subject are so apposite that they are reproduced in full:—

The sections of the Municipal Act, which enable the Commissioners to cause improvements to be made in *bastis* at the expense of the owners, fall into two categories.

By the first category, the Commissioners may call upon the owners to prepare plans showing certain improvements and to carry out those improvements, and till such requisitions are complied with, the Commissioners may refuse to sanction the building or rebuilding of any huts. These provisions are, as a matter of fact, rarely resorted to.

The second or more drastic category of *basti* sections provides in cases where the *basti* is so unhealthy that speedy measures are required—

(a) That the Commissioners in meeting may cause a *basti* to be inspected and reported on by two medical officers.

(b) That the medical officers shall prepare a standard plan and a schedule of the changes required to be made to bring the *basti* into conformity with the standard plan, coming under the following heads:—

(1) Removal of huts.

(2) Construction of roads and drains.

(3) Filling up of tanks and low lands.

(4) Other works necessary to remove or abate the insanitary condition of the *basti*.

(c) That the Commissioners in meeting may, on requisition of the owners, carry out the changes shown in the schedule.

(d) That in default of the owners, the Commissioners may cause the works to be carried out and recover cost from the owners, including the compensation paid to owners of huts.

The above provisions are to be read subject to the following important provisos, viz., that no standard plan shall show more than one-fifth of the area of the improved *basti* as roads, or more than one-half as open lands not to be built upon; that if in the case of any one plot a greater portion is taken than the proportion allowed above, the owner of that plot shall be entitled to compensation. This compensation is to be paid by the persons who benefit thereby, and if no such persons can be found, then by the Corporation.

The roads shown in the standard plan remain private streets (unless the Commissioners and owners otherwise agree), but are open for the use of the tenants and for scavenging purposes.

In applying these provisions, the Commissioners make no attempt to recover the cost of construction from the owners when they carry out works in default of the owners. If such attempts were made, they would find themselves opposed at every turn in their schemes of *basti* improvement by the *basti* owners, and the work of *basti* improvement would be brought to a standstill. It is exceptional for the owners to bear any part of the cost of construction, and the Commissioners are well content if they can get the land required for roads free of cost from the owners. *Basti* schemes resolve themselves into this:—That the *basti* property is improved at the expense of the Commissioners, the owners merely giving up to the use of the public the land required for the roads.

19. During the last ten years nearly 8½ lakhs of rupees have been expended on *basti* improvement, the material advantage of which, setting aside the benefit to the public from a sanitary point of view, rests with the owners of the property. The Lieutenant-Governor finds it difficult to completely share the contentment which the Commissioners seem to feel with the existing state of affairs, since it appears to him that the present procedure differs from that embodied in Act II of 1888. It is a procedure which, to a very great extent, favours the owners of *bastis* at the expense of the general body of rate-payers. The law provides the Commissioners with ample powers to recover the cost of improvements from the owners benefitted, and although in certain cases which present special features, the Commissioners may reasonably abate something of their rights, the Lieutenant-Governor considers that they

owe it to the tax-payers not to abandon their legal rights altogether. The law should be enforced, no doubt with consideration and in a reasonable and proper spirit, but the law is not enforced at all if no recoveries are ever made from the owners of *bastis* which have been improved by the Commissioners. It is conceivable that difficulties may be experienced in giving effect to the law, but it is better that they should be met and overcome rather than that the law should be ignored.

20. The Harrison and Lansdowne Roads were completed during the year: these are fine works, which have greatly improved the city. The net cost of the Harrison Road is expected to be twenty lakhs of rupees, and it has been lighted with electricity at an additional cost of Rs. 93,383. The accounts for the Lansdowne Road are not yet closed, but the cost so far has been Rs. 2,40,205. In the suburbs Rs. 2,73,585 have been spent out of the statutory three lakhs referred to above, of which Rs. 44,005 were paid for the incinerator at Gobragacha, and Rs. 61,429 on the extension of Lansdowne Row.

21. A very important branch of the municipal administration of Calcutta is the department of the Engineer to the Corporation, comprising the great heads of water-works, drainage, and roads, besides the maintenance of the sewers, of the Municipal Workshops and the Municipal Railway. The Commissioners are committed to the extension and development of their water-supply and drainage system, to which, especially to the former, is to be attributed the very marked improvement which has taken place in the general health of Calcutta during the past twenty years. Of the importance of these schemes the Commissioners are fully conscious, and

Engineer's Department.

improvements have been vigorously carried on during the year under report. Two new settling tanks have been constructed at Pulta to hold 48 million gallons, thus bringing up the settling tank capacity to 105 million gallons, or five times the present daily filtered supply of the town, which has been more than 20 million gallons, giving a consumption per head of 37.32 gallons in the town proper and 17.58 gallons in the added area. During the same period 18 miles of distribution pipes have been laid down, making the total 285.73 miles, and the number of premises supplied 22,831. In addition to the town supply, Barrackpore was provided with an average of 128,118 gallons per diem throughout the year. Unfiltered water is also supplied for bathing, for flushing drains and sewers, and for street watering: the amount passed through the 71 miles of pipes during the year was 4,320,879 gallons. The capital expenditure on the water-works of Calcutta up to the end of 1892-93 amounted to Rs. 64,25,832,

Water-supply.

and the total daily supply was 24,166,996 gallons; whereas in the year 1876, when the old series of works were completed, the capital expenditure amounted to Rs. 71,59,986 for a total daily supply of 7,162,819 gallons only. The capital cost per gallon up to 1876 had therefore been 15.9 annas, while in 1893 it had been reduced to 10.8 annas. The estimated cost of works sanctioned in detail and in progress amounts to Rs. 16,28,519, of which Rs. 12,60,502 have already been expended, but the Commissioners have in the present year's budget made provision for further important and useful works estimated to cost 2½ lakhs. The Government attaches the greatest importance to the plentiful supply of good water to the town, and in course of time to the added area, and has nothing but commendation to bestow upon prudent farseeing efforts in this direction.

22. With the laudable object of extending the benefits of pure water to areas outside the limits of the Municipality, the Commissioners during the year agreed to supply the Maniktollah Municipality with filtered water up to a maximum of 10 gallons a head at a cost of 4 annas per 1,000 gallons, and, moreover, at the request of Government, they allowed their Municipal Engineer, Mr. Kimber, to undertake the preparation of a scheme and estimate for supplying with filtered water the riparian municipalities on the left bank of the Hooghly from Barrackpore downwards: the consent of the Corporation was conditional on compliance with two stipulations, which are reasonable enough, viz., that the municipalities concerned should pay all the cost of the surveys, &c., and that no portion of the water required for the Calcutta Municipality should be diverted for the benefit of any outside municipality. The scheme is necessarily a large one, and has not yet been completed.

23. The drainage system of the town proper has been virtually completed for some time, but improvements are constantly carried out as occasion offers or necessity arises.

Drainage.

A large flushing reservoir, holding 300,000 gallons, was constructed during the year near the Bhawanipur Pumping Station, and provision has been made in the Loans Budget for 1893-94 for a large extension of the flushing system. Much remains to be done also in the added area, where there are 200 miles of open drains which can be adapted and used for surface drainage. The Lieutenant-Governor is glad to observe that this subject is receiving the careful attention of the Commissioners, and that a great advance may be expected in this direction during the current year.

24. The inspection of premises and house connections seems to have been carried on with activity, and Sir Antony MacDonnell hopes that there will be no reduction in the strength of this and other conservancy establishments for the sake of petty savings. The roads in Calcutta now measure upwards of 319 miles in extent, and the cost of their up-keep during 1892-93 was Rs. 4,35,580. The Lieutenant-Governor learns with regret that the Commissioners have effected a reduction of Rs. 75,000 in the provision under this head for 1893-94, since he fears that the result will only be a still larger expenditure in 1894-95.

25. Not less important than the services of the Engineer are those of the Health Officer, and the Commissioners are to be congratulated on possessing in Dr. Simpson an adviser of high attainments in sanitary science. He has submitted for the current year a full and interesting report, of which it is impossible to reproduce more than a very brief abstract.

26. In the matter of vital statistics, a distinct advance in the accuracy of registration is visible. As has frequently been observed, the vital statistics of the Municipality cannot fairly be compared with those of other areas, since the large proportion of adults in Calcutta in the prime of life, especially males, necessarily gives a special character to the population. But, comparing one year with another, the reported birth-rate was higher in 1892 than in any previous year since the amalgamation of town and suburbs. The figures are given in the margin, and the sudden inversion in 1890 of the relative positions of Calcutta and the Suburbs is significant of the

Vital statistics.

YEAR.	BIRTHS PER MILE.		
	Calcutta.	Suburbs.	Total.
1889 ...	18.7	16.1	18.
1890 ...	17.	18.4	17.4
1891 ...	17.6	19.6	18.3
1892 ...	17.4	21.2	18.6

introduction of better registration. The death-rate of the combined area was lower in 1892 than it has been since 1889, when it is certain that some deaths were omitted in the Suburbs as that area had been but recently added to Calcutta; but, under the arrangements now in existence, it is almost impossible for a death

YEAR.	DEATHS PER MILE.		
	Calcutta.	Suburbs.	Total.
1889 ...	25	30.6	28.7
1890 ...	26.5	37.1	29.8
1891 ...	27.9	30.4	31.5
1892 ...	27.1	34.8	29.8

to escape registration, since the difficulties in the way of clandestine disposal of a corpse are almost insurmountable. Dr. Simpson is justified therefore in accepting as correct the figures now given which are quoted in the margin, and in using them to illustrate in forcible terms the effect of introducing a good water-supply. The death-rate varies greatly in different wards, and the figures given in

Dr. Simpson's fourth paragraph have a terrible significance; they show that the added area of Burtollah has a mortality of 44.1 per mille, and that of Sukea's street one of 42.3: the same areas maintain the same evil predominance for fever and cholera. Dr. Simpson says: "The whole added area bordering on the Circular Canal is lowlying, crowded with people, has a large number of filthy tanks, and is very unclean. The people also are more residential; they die here, whereas in many other wards they go home to die." The attention of the Commissioners should be focussed on this locality during the current year.

27. The Health Officer urges again the desirability of a low level outfall sewer to discharge the sewage of Calcutta into the Salt Lakes, but the Commissioners have rightly decided that the cost of such an undertaking is at the present moment prohibitive. It is noted further that the extension of the water-



supply to the suburbs has had the effect of water-logging the soil, a defect which will not be remedied till the drainage of that area has been placed on a satisfactory basis. When that has been done and proper arrangements have been concluded for the destruction of refuse by burning, the benefits which the Suburbs will have derived from the amalgamation will be great indeed.

28. The general cholera mortality of 1892 was less by nearly one-third than in 1891—a result largely due to the comparative immunity of the Suburbs, and this again is distinctly attributable to a definite cause. It appears that for many years the cholera death-rate in the Suburbs and in Howrah rose and fell together with a very close correspondence. Up till 1891 the sanitary condition of the two areas was very similar, since neither of them enjoyed any system of drainage, and both relied for their water-supply on sources frequently polluted. The average death-rate in Howrah previous to 1892 was 435 to 1,271 in the Suburbs. At the end of 1891 the filtered water-supply was extended to the Suburbs, and the number of cholera deaths fell at once in 1892 to 762, while those in Howrah rose in the same year to 771: had the previous ratio been preserved, the number in the Suburbs would have been over 2,000. The argument is clearly and forcibly stated; but the Lieutenant-Governor, although he admits its probability, is unable to accept it as conclusive at present, since it is based upon the observations of one year only. Howrah is about to be provided with a supply of filtered water, and if similar phenomena be observed to follow the operation in that area, Dr. Simpson's argument will be fully confirmed.

29. The very important question of Building Regulations is brought prominently forward by the Health Officer in his report, and is discussed in that of the Commissioners. This subject was treated very fully in Dr. Simpson's report for the year 1889, and he insisted strongly on the fact that the law and bye-laws at present in force are quite insufficient to secure the preservation of proper sanitary rules as regards the building of streets, houses or huts. Government, in the Resolution on the report for 1889-90, fully endorsed his view of the vital importance of the question, and commended to the attention of the Commissioners the remedies proposed by him in detail, and the suggestion that a strong Committee formed of engineers, medical men and others should be appointed to thoroughly investigate and report on the whole subject. The Lieutenant-Governor is disappointed to learn that no action has been taken on the suggestion thus commended to the Commissioners, and in his report for the year just past, Dr. Simpson again comments in forcible terms on the continuous and growing evils of the present state of affairs and the urgent necessity of undertaking a reform of such vital importance. He writes:

"The deterioration in health conditions of certain localities during the past few years is very marked, and nothing can stop this deterioration while the present law remains in force. When a house can be built anywhere without reference to efficient ventilation, proper drainage or surroundings, when it may be built in any lane or passage irrespective of the width of that lane or passage, and when it may be built in such a manner as to permit it to obstruct the light and ventilation of the neighbouring houses so long as it is four feet away from them, no long time is necessary to create plague spots in different parts of the town. Such a process is going on continuously now, and while that process is allowed to continue, the money spent on the new Harrison Road and on the lanes which are constructed through bustees will have but a poor return, because the destruction of insanitary areas which is effected by new roads and lanes can never even keep pace with the progressive creation of areas much worse in type."

On this question the Commissioners are divided into two parties. The Health Officer is supported by a minority of the more advanced among them, including the Officiating Chairman, but is opposed by a large majority of the Corporation, who believe that the present law and bye-laws sufficiently meet the wants of the case, and that no further legislation is required. The arguments on both sides are well stated as follows:—

A very large majority of the Commissioners consider that, under the present law, there is ample power to regulate erection of proper buildings. A set of bye-laws was passed some years ago after careful consideration, but experience having shown their inapplicability to certain cases, the Commissioners have recently appointed a Committee to revise them, and they believe that, if proper bye-laws are framed, much of the complaint made in the Health Officer's report is likely to disappear.



The cautious way in which the bye-laws have been worked has gone far to reconcile public feeling to them, and any hasty attempt at legislation must be deprecated by the bulk of the Commissioners as much in the interests of sanitary reform as out of deference for public opinion. The Commissioners are as eager for sanitary improvement as their Health Officer, but they are fettered by considerations which the Health Officer need not recognize. They have to take a practical view of the situation. They have to reconcile the interests of sanitation with the state of public opinion, and they feel from their past experience that they must proceed cautiously, and that a Building Act which would be resented by public opinion would not only prove a great hardship to the people, but would be practically inoperative.

The Commissioners in this connection would recall the words of Sir Ashley Eden in the Resolution on the Administration Report for 1876. Referring to the remarks of their former Health Officer, Dr. Payne, he wrote—"Mr. Eden is persuaded that to make sanitation efficient in Calcutta, the people of the city must be led, and not driven, into co-operation with the Sanitary Department. Dr. Payne should bear in mind that one case in which native society is induced by conviction to adopt a sanitary theory is worth hundreds of cases in which they are pressed into submitting to reforms of the benefits of which they are not satisfied. The Sanitary Officer must remember that the principles and theories which to him seem so obvious and so indisputable have not even yet received practical acceptance in many countries in a much more advanced condition of social progress than India. In some of the finest cities in civilized Europe, with every appliance and convenience for sanitary improvement available, there are streets, lanes, and houses whose description, if faithfully given, would throw into the shade the vivid pictures of the filth of Calcutta so graphically drawn by Dr. Payne."

The general question involved is one on which the most opposite opinions have been entertained among the Commissioners. Opinion is divided into two schools on much the same lines as it is divided on the same subject in London and other towns in Europe. The one School—whose views are represented above, and they form the large majority of the Municipal Commissioners—holds that whatever land is required to be taken up for roads should be acquired at public cost, and that to require the owner to give up land and prevent him from making the profit out of it which he otherwise could make amounts to unjustifiable confiscation. They point out that town property has been continually changing hands without any such disabilities attaching to the possession either existent or in prospect, that the ownership of town land is in many cases in the hands of very petty and numerous shareholders, and that it is impossible for them to enter into mutual arrangements that shall be equitable to all to give up lands for roadway. In short, it is contended that any attempt to get broad streets made in new localities otherwise than at the public cost would be spoliation.

The opposite school, on the other hand—which comprises a small minority of the Commissioners, including the Officiating Chairman—contend that the municipal income must for ever be inadequate to the burthen which the other party would impose upon it; that inasmuch as the value of a town property is enormously enhanced by the construction of a street with necessary drainage provision, it is not equitable that the rate-payer should bear the whole cost; that if no restrictions have hitherto been imposed and property has changed hands free from such restrictions, this result has been due to carelessness, and that, in view of the dangers to the public health from the present system which the Health Officer has pointed out, a change in that system is imperatively called for. It is pointed out that the value of land is increasing annually in Calcutta, largely owing to Municipal improvements, and that the longer the question is deferred, the more difficult of solution it will become. It is admitted that no legislation should be passed without the most careful preliminary inquiry so as to prevent injustice to individuals, but it is strongly urged, on the other hand, that on the general principle that property has its duties as well as its rights, and that, in the case of property in an overcrowded city, interference is necessary for the common weal, the State should place such restrictions upon building, even at the cost of diminishing the value of town property to its immediate possessor, as may be essential for the public health.

Sir Antony MacDonnell has great sympathy with Sir Ashley Eden's view as quoted above, but still there are occasions when it is necessary to anticipate rather than to follow public opinion, and among them is surely the occasion when inaction is injurious to the community at large. The Lieutenant-Governor will be glad to see a draft of the new bye-laws referred to above at an early date; and eventually, if in the opinion of a considerable section of the Commissioners these bye-laws are still insufficient, he will be prepared to consider any representations that may be made to him on the subject. His Honour believes that the public mind in Bengal is awakening to the benefits of sanitary improvement: and he notices with special pleasure the passage in this report in which the Commissioners assert that their eagerness for sanitary improvement is as great as that of their Health Officer. His Honour trusts that nothing will prevent them from giving full effect to these good intentions.

• 30. Sir Antony MacDonnell has perused with much interest the report reviewed in the preceding paragraphs: it records the execution of much useful work, especially in the direction of sanitation and of structural improvements, such as the extension of drainage and water-supply and the improvement of *bastis*, and for their share in carrying out these measures, the thanks

of the Lieutenant-Governor are due to the executive officers of the Corporation, the Engineer and the Health Officer. The Commissioners themselves have, as a whole, displayed a care and attention to their duties which is very meritorious, and has in some cases risen to the level of devotion. The year, though not actually one of straitened resources, was yet clouded by the shadow of impending pecuniary difficulties, and the policy of the Commissioners has doubtless on some occasions been guided by this circumstance which has induced them to shrink from expenditure on objects which have strong claims upon them. In executive matters the Lieutenant-Governor perceives an occasional want of vigour, especially in the collection of rates, the enforcement of the law in regard to license fees, and the recovery of expenses from the owners of *bastis*. But these defects admit of remedy; and on suitable opportunities they will no doubt be remedied. Leaving them out of consideration, Sir Antony MacDonnell very cordially acknowledges the services the Corporation have rendered to the city, and thanks them for the careful control which they have exercised over the various Departments of the municipal administration. Finally, His Honour desires to recognize the industry and tact displayed by Messrs. Lee and Ritchie in discharging the duties of an appointment which requires the display of these valuable qualities in a marked degree.

By order of the Lieutenant-Governor of Bengal,

J. A. BOURDILLON,

*Offg. Secretary to the Govt. of Bengal.*

## FINANCIAL RESOLUTION.

## FINANCIAL DEPARTMENT—FINANCE.

*Calcutta, the 21st November 1893.*

RESOLUTION No. 5032F.

THE Lieutenant-Governor is now in a position to review the actual financial results of the year 1891-92, the revised estimates for the year 1892-93, and the budget estimates for 1893-94. The Accountant-General's memorandum on the accounts of the first year has been received, and though his final report on the accounts for 1892-93 has not yet been submitted, his appropriation report for the year affords sufficient materials for framing an approximate estimate of the financial position of the Province at the close of the year. The figures of the revenue and expenditure of the first five months of the current year have been received from the Accountant-General, and these are sufficient to form the basis for a review of the budget estimates for 1893-94.

## PART I.

## ACCOUNTS OF 1891-92.

2. The approximate actuals adopted in the Financial Resolution No. 5191F. of the 27th December 1892 assumed that the year 1891-92 had opened with a credit balance of Rs. 24,72,774, and had closed with a balance of Rs. 23,85,016, that the total amount available for expenditure during the year was Rs. 6,02,72,887, and that of this sum Rs. 5,78,87,871 had been spent. The final result was less favourable than this estimate by Rs. 31,585. The amount actually available for expenditure was Rs. 6,02,74,758, and the amount actually expended, Rs. 5,79,21,327, leaving a closing balance of Rs. 23,53,431. The actuals furnished by the Accountant-General in his memorandum on the accounts of the year are compared in the following table with the approximate actuals adopted in the Financial Resolution quoted above:—

RECEIPTS.		HEADS.	EXPENDITURE.	
Figures adopted in December 1892.	Actuals.		Figures adopted in December 1892.	Actuals.
1	2	3	4	5
Rs. 3,34,20,307	Rs. 3,34,19,595	Principal heads of revenue ...	Rs. 65,85,347	Rs. 65,86,522
1,18,163	1,18,163	Interest ...	1,01,241	1,01,133
.....	.. ..	Post Office and Telegraph ...	4,498	4,498
41,61,493	41,60,710	Civil Departments .	2,34,80,985	2,34,90,813
11,20,138	11,20,371	Miscellaneous .	32,29,186	32,30,627
.....	...	Construction of Railways	7,750	7,750
1,60,39,548	1,60,39,517	Railways .	1,42,41,897	1,42,64,062
25,38,336	25,38,336	Irrigation and Navigation ...	53,31,626	53,31,627
4,01,828	4,05,262	Buildings and Roads .	40,26,500	40,25,424
.....	.....	Contributions ...	8,78,841	8,78,841
5,78,00,113	5,78,01,984	Total ...	5,78,87,871	5,79,21,327
24,72,774	24,72,774	Opening balance ..	.....	.....
.....	.....	Closing balance ...	23,85,016	23,53,431
6,02,72,887	6,02,74,758	GRAND TOTAL ...	6,02,72,887	6,02,74,758
		Provincial deficit (—).	(—)87,758	(—)1,19,343

3. There was an increase of Rs. 1,871 in Receipts, principally under Ferry Tolls, against an advance of Rs. 33,456 in Expenditure. The fluctuations in expenditure were chiefly under Stamps (Rs. 1,062), Police (Rs. 8,535), Minor Departments (Rs. 1,264), and State Railways—Working Expenses (Rs. 22,164). The increase under State Railways was due to an adjustment of Rs. 22,164 made under the orders of the Government of India on account of the working expenses of the Tirhut State Railway (old account).

4. The transactions under Provincial loans and advances, which are not included in the cash account of the year 1891-92, were as follows:—

HEADS.	Balance out- standing on 1st April 1891.	Repayments.	Outgoings.	Balance out- standing on 31st March 1892.
1	2	3	4	5
<b>CLASS I.</b>	Rs.	Rs.	Rs.	Rs.
Advances to cultivators—				
Loans under the Land Improvement Act XIX of 1883.	1,98,850	95,158	94,624	1,98,316
Advances to cultivators under Act XIII of 1884.	3,70,508	1,35,599	49,317	2,84,226
Famine advances ... ..	10,409	10,409	.....	.....
Total ...	5,79,767	2,41,166	1,43,941	4,82,542
<b>CLASS II.</b>				
Advances under Special laws—				
Embankment and drainage advances—				
Zamindari embankment advances ...	77,517	96,355	55,699	36,861
Drainage advances—				
Ampta drainage ... ..	52	.....	.....	52
Howrah „ ... ..	3,07,893	215	1,07,393	4,15,071
Nadia „ ... ..	290	290	.....	.....
Rajapur „ ... ..	8,79,982	.....	20,876	9,00,858
Dankonee „ ... ..	19,428	21,824	8,392	5,996
Protapkhally „ ... ..	12	.....	.....	12
Total ...	12,85,174	1,18,684	1,92,360	13,58,850
<b>CLASS III.</b>				
Loans to landholders ... ..	62,294	2,40,627	5,69,543	3,91,210
<b>CLASS IV.</b>				
Loans to mufassal municipalities ...	1,63,403	6,332	38,339	1,95,410
„ to District and other Local Funds ...	1,05,000	18,839	1,56,196	2,42,357
„ to the Chittagong Port Fund ..	63,455	.....	63,771	1,27,226
Total ...	3,31,858	25,171	2,58,306	5,64,993
<b>GRAND TOTAL</b> ...	22,59,093	6,25,648	11,64,150	27,97,595

## PART II.

## REVISED ESTIMATE OF 1892-93.

5. The financial year which expired on the 31st March 1893, was the first of the quinquennial period for which a new contract has been made with the Government of India. A revised estimate, based on the actuals of eight

months, was submitted to the Government of India with letter No. 623F., dated the 31st January 1893. An amended statement was submitted on the 9th March 1893. Although the accounts of the year have not yet been finally closed, and are still open to adjustments, there are sufficient materials to frame an approximate estimate of the financial position of the province at the close of the year. The following statement shows the revised estimate as submitted to the Government of India, the estimate as passed by that Government, and the estimate now adopted by the Government of Bengal:—

RECEIPTS.	Estimate submitted to the Government of India.	Estimate passed by the Government of India.	Estimate now adopted.	EXPENDITURE.	Estimate submitted to the Government of India.	Estimate passed by the Government of India.	Estimate now adopted.
1	2	3	4	5	6	7	8
opening balance	Rs. 2,53,000	Rs. 2,53,000	Rs. 2,53,000	Direct demand on the Revenue—	Rs.	Rs.	Rs.
Capital head of Revenue—				1. Refunds and drawbacks	1,53,000	1,53,000	1,74,000
I.—Land Revenue (Proper)	1,00,00,000	1,00,00,000	99,80,000	2. Assignments and compensations	1,80,000	1,80,000	1,84,000
II.—Salt	13,25,000	13,25,000	13,25,000	3. Land Revenue	33,88,000	33,88,000	33,70,000
III.—Sugar	50,000	50,000	50,000	4. Salt	1,25,000	1,25,000	1,24,000
IV.—Sugarcane	1,10,23,000	1,10,23,000	1,10,23,000	5. Stamp	1,30,000	1,30,000	1,30,000
V.—Sugarcane	28,20,000	28,20,000	28,20,000	6. Stamp	1,60,000	1,60,000	1,60,000
VI.—Provincial Rates	45,40,000	45,40,000	45,40,000	7. Provincial Rates	4,40,000	4,40,000	4,41,000
VII.—Customs	2,50,000	2,50,000	2,50,000	8. Customs	5,30,000	5,30,000	5,41,000
VIII.—Assessed taxes	2,17,000	2,17,000	2,14,000	9. Assessment Taxes	92,000	92,000	92,000
IX.—Fees	4,00,000	4,00,000	4,00,000	10. Forests	2,23,000	2,23,000	1,91,000
X.—Registration	7,05,000	7,05,000	7,17,000	11. Registration	3,57,000	3,57,000	3,63,000
Total	3,11,10,000	3,11,10,000	3,11,55,000	Total	60,92,000	60,92,000	60,80,000
XII.—Interest	1,30,000	1,32,000	1,42,000	13. Interest on ordinary debt	1,20,000	1,21,000	1,21,000
XIII.—Post Office			2,000	Post Office, Telegraph, and Mint—			
Receipts by Civil Department—				15. Post Office	4,000	4,000	7,000
XVI.—Law and Justice (Courts of Law and Jails)	8,70,000	8,70,000	8,68,000	Salaries and expenses of Civil Department—			
XVII.—Police	9,00,000	9,00,000	9,19,000	18. General Administration	16,25,000	16,25,000	16,37,000
XVIII.—Marine	2,00,000	2,00,000	2,10,000	19. Law and Justice (Courts of Law and Jails)	86,35,000	86,35,000	86,20,000
XIX.—Education	9,05,000	9,05,000	9,00,000	20. Police	2,00,000	20,00,000	21,10,000
XX.—Medical	5,70,000	5,70,000	5,60,000	21. Marine	17,84,000	17,84,000	18,44,000
XXI.—Scientific and other Minor Departments	1,50,000	1,50,000	1,50,000	22. Education	8,61,000	8,61,000	8,44,000
Total	40,20,000	40,31,000	40,75,000	23. Medical	2,53,000	2,53,000	2,57,000
				24. Political	16,80,000	16,80,000	16,13,000
				25. Scientific and other Minor Departments	3,000	3,000	18,000
				26. Scientific and other Minor Departments	3,25,000	3,25,000	3,41,000
				Total	2,53,67,000	2,53,67,000	2,53,70,000
Gratuities				Miscellaneous—			
XII.—Receipts in aid of Superannuation	72,000	72,000	78,000	29. Superannuation &c.	10,93,000	10,90,000	17,03,000
XIII.—Stationery and Printing	1,15,000	1,15,000	1,15,000	30. Stationery and Printing	1,48,000	13,98,000	1,50,000
XIV.—Miscellaneous	8,30,000	8,25,000	8,70,000	32. Miscellaneous	1,98,000	1,98,000	2,12,000
Total	9,17,000	9,12,000	9,63,000	Total	1,34,39,000	1,34,39,000	1,34,71,000
Grants-in-aid—				Famine Relief and Insurance—			
XVI.—State Railways (net receipts)	31,00,000	31,12,000	31,00,000	33. Famine relief	3,000	3,000	1,000
Construction—				Railways (Revenue account)—			
XIX.—Major works (direct receipts)	16,35,000	16,50,000	1,88,000	40. Subsidized Companies—Land, &c.	20,000	20,000	25,000
XX.—Minor works and navigation				Irrigation—			
By Public Works Department	7,85,000	7,85,000	7,51,000	42. Major Works—			
By Civil Department	1,18,000	1,18,000	1,25,000	Weir expenses	14,00,000	14,00,000	13,95,000
Total	8,03,000	8,03,000	8,76,000	Total on debt	21,25,000	21,25,000	21,30,000
				43. Minor works and navigation	15,50,000	15,46,000	15,94,000
				By Public Works Department	4,000	4,000	5,000
				By Civil Department			
				Total	53,81,000	53,76,000	

## RECEIPTS.

6. *Land Revenue.*—The revised estimate of total Land Revenue receipts for 1892-93 was placed at Rs. 3,85,50,000, but the actual collections only reached a total of Rs. 3,84,96,000. The 12 per cent. on collections from Government estates amounted to Rs. 4,74,000, and the total Provincial share of Land Revenue for the year was therefore one-fourth of (Rs. 3,84,96,000—Rs. 4,74,000) + 4,74,000, or Rs. 99,80,000. This amount has been adopted as the revised estimate of the Provincial share of Land Revenue (proper) for 1892-93. The adjustments between the Imperial and Provincial revenues will probably result in a net deduction of Rs. 13,36,000, as shown below:—

	Estimate passed by the Government of India.	Revised estimate now adopted.
Fixed contribution to Imperial under the new Contract ... ..	—14,39,000	—14,39,000
Grant for the Hidgelee Tidal Canal ... ..	+49,000	+38,000
Ditto honorarium to Mr. Kelby for salt scales ... ..	+38,000	+38,000
Grant for the transfer of Imperial buildings to local agencies ... ..	+45,000	+45,000
Interest on the capital expenditure on Hidgelee Tidal Canal advanced from Imperial ... ..	—19,000	—18,000
Total ... ..	—13,26,000	—13,36,000

7. The Government of India, in the Public Works Department letter No. 33A.C.W., dated the 25th January 1893, directed that, before the close of each financial year, a statement of the claims against the Imperial Government, including the usual percentage charges for establishment and tools and plant on the grants for Imperial works and repairs made over to local bodies, should be submitted to the Finance and Commerce Department of the Government of India, in order that the necessary adjustment of accounts might be made through the head of Land Revenue. The required statement for 1892-93 was submitted to the Government of India with a request for an assignment of Rs. 47,690, but the Finance and Commerce Department has since decided that the final adjustment between Imperial and Provincial should be made with reference to the actual expenditure incurred by the local bodies during the year, and not on the grants provided in the estimates. The Public Works Department has accordingly been asked to call upon the local bodies concerned to submit, after the close of every year, a progress report showing the actual amount spent during the year on each Imperial work made over to them, and the further amounts that are likely to be required for their completion. As the year 1892-93 has already closed, the Public Works Department has been asked to supply the Financial Department with a statement showing the actual expenditure on Imperial works incurred by the local bodies during the year, so that an application may be made for final adjustment. Pending the receipt of this information, Rs. 45,000, the amount passed by the Government of India in the revised estimate, is adopted in this Resolution.

8. *Salt.*—The original estimate under this head was Rs. 1,30,000; but looking to the falling off under “Rents of Warehouses,” the revised estimate was placed at Rs. 90,000. The actual realizations, however, amounted to Rs. 84,000 only against Rs. 1,10,854 in 1891-92. The decrease was due to the quantity bonded during the year being less, and to a general reduction in the stock kept at the golahs, in consequence of the consumption during the year being greater than the importation. Moreover, owing to the exceedingly low rate of freight, salt laden ships after discharge could not obtain export cargo, and it paid the owners better to sell salt direct from the ships instead of discharging and storing it.

9. *Excise.*—The receipts under this head amounted to Rs. 1,15,95,000, against Rs. 1,14,10,000, the revised estimate passed by the Government of India. One-fourth of this sum or Rs. 28,99,000 have been taken as the share of the Local Government. The receipts of the year show an increase of 4 per cent. over those of the previous year, and are larger than the revenue of any of the preceding four years.

10. *Provincial Rates.*—The revised estimate under this head was placed at Rs. 45,40,000 against Rs. 45,24,517, the actuals of 1891-92. The percentage of arrear collections of both Road and Public Works Cesses on arrear demand was 80·9, that of current collection on current demand 84·9, and that of total collection on current demand 102·2. The year therefore closed with a smaller arrear balance than that with which it opened. The total collections under the head amounted to Rs. 46,16,000.

11. *Assessed Taxes.*—The original estimate for 1892-93 was Rs. 43,00,000 against Rs. 43,07,928, the actuals of 1891-92. Looking to the steady growth of revenue under this head, and also to the increased collections in the first eight months of the year as compared with those of the same period in the preceding year, the estimate was raised to Rs. 43,50,000 in the Financial Resolution dated 27th December 1892. The same figure was adopted by the Local Government in the budget report; but the Government of India, in view of the falling off in receipts in the later part of the year, reduced the estimate to Rs. 43,10,000. The actuals amounted to Rs. 42,28,000. The Provincial share of one-half has accordingly been taken at Rs. 21,14,000. The net revenue shows a decrease of 1·8 per cent. against an increase of 1·5 per cent. in the preceding year: the decrease is in the collection of the arrear demand.

12. *Registration.*—The Provincial share of the receipts under this head amounted to Rs. 7,17,000 as compared with Rs. 7,05,000 the revised estimate passed by the Government of India, and Rs. 6,67,156, the actuals of 1891-92. The increase is attributable partly to the influence of the season and partly to the growing confidence of the public in registration concurrently with the general advancement in education and in a knowledge of the law.

13. *Interest.*—The actuals amounted to Rs. 1,42,000 against Rs. 1,32,000, the revised estimate, as shown below:—

	Revised estimate passed by India. Rs.	Revised estimate now adopted. Rs.
Class I.—Interest on advances to cultivators ...	20,000	26,000
„ II.—Interest on advances under special loans ...	5,000	4,000
„ III.—Interest on loans to landholders and other notabilities ...	18,000	18,000
„ IV.—Interest on loans to municipal and other public corporations ...	27,000	29,000
Interest on Government securities ...	13,000	13,000
Miscellaneous ...	49,000	52,000
Total ..	1,32,000	1,42,000

14. *Police.*—The receipts of the Police Department are compared below with the revised estimate passed by the Government of India:—

	Revised estimate passed by India. Rs.	Approximate actuals. Rs.
(1) Police paid for by Municipal, Cantonment and Town Funds ...	6,000	6,000
(2) Police paid for by Public Departments, Companies and private persons ...	23,000	25,000
(3) Presidency Police ...	93,000	1,02,000
(4) Recoveries on account of village police ...	2,000	3,000
(5) Fines, fines, and forfeitures ...	32,000	34,000
(6) Superannuation receipts ...	.....	1,000
(7) Miscellaneous ...	70,000	71,000
Total ...	2,26,000	2,42,000

The fluctuation was chiefly in the receipts derived from the Presidency Police. The increase under (2) was due to larger recoveries in Patna for police supplied to private persons.

15. *Marine*.—The receipts under this head amounted to Rs. 9,20,000 as compared with Rs. 9,05,000, the revised estimate passed by the Government of India. The increase was chiefly under pilotage receipts, which amounted to Rs. 8,41,000, against Rs. 8,30,000, the revised estimate of the year.

16. *Medical*.—The revised estimate under this head, passed by the Government of India, was Rs. 1,50,000, but the actual receipts amounted to Rs. 1,70,000. The increase was under "Hospital receipts," and was due partly to the orders of Government enhancing the rate of payment from the Hospital Port Dues Fund on account of seamen sent to hospital, and partly to larger receipts from paying patients.

17. *Railways*.—Under the terms of the new contract with the Government of India, the Nalhati and the Tirhut State Railways have been made Imperial, while the net receipts of the entire Eastern Bengal Railway system are divided equally between the Imperial and the Provincial Revenues. The actual net receipts in 1892-93 amounted to Rs. 62,13,000 against Rs. 61,25,000, the revised estimate passed by the Government of India. The provincial share will now amount to Rs. 31,06,000, as shown below:—

	Revised estimate passed by the Government of India.	Preliminary actuals.
	Rs.	Rs.
Receipts	1,18,00,000	1,18,50,000
Working expenses	53,75,000	56,17,000
	<hr/>	<hr/>
Net receipts	61,25,000	62,13,000
	<hr/>	<hr/>
Provincial share	32,12,000	31,06,000
	<hr/>	<hr/>

18. *Irrigation—Major Works*.—The total receipts in 1892-93 amounted to Rs. 18,88,000 against Rs. 16,50,000, the revised estimate passed by the Government of India. The increase was mainly due to the recovery of old outstandings and of current demands on account of the Sone Canals.

19. *Civil Works*.—The original estimate of receipts from departments in charge of the Public Works Department was Rs. 2,30,000, and was reduced to Rs. 2,10,000 in the revised estimate. The actual receipts, however, amounted only to Rs. 1,63,000. The high estimate was based on the expectation that the Government share of the profits from the Darjeeling-Himalayan Railway would be realized during the year, but the adjustment could not be made as the case tried by the High Court, on which the payment depended, was not decided until after the expiration of the year.

#### EXPENDITURE.

20. *Stamps*.—The cost of "Stamp paper supplied from Central Stores" in 1892-93 amounted to Rs. 2,90,000 against Rs. 2,82,000 passed by the Government of India as the revised estimate of the year. The Provincial share of the total charges of the Stamp Department amounted to Rs. 4,47,000 or Rs. 10,000 more than the figure adopted in the revised estimate.

21. *General Administration*.—There was larger expenditure under "Commissioners" than had been provided for in the revised estimate, and the total actual charges now amount to Rs. 16,37,000 against Rs. 16,25,000, the revised estimate passed by the Government of India.

22. *Jails*.—The total charges under this head amounted to Rs. 21,19,000 as compared with Rs. 20,90,000, the revised estimate passed by the Government of India. The increase was chiefly on account of rations, clothing and bedding, and other supplies due to the increase in jail population and the high price of food-grains.

23. *Police*.—The revised estimate under this head was Rs. 57,84,000, but the total expenditure amounted to Rs. 58,47,000. The excess was under "Superintendence" (Rs. 4,000), "District Executive Force" (Rs. 39,000), "Special Police" (Rs. 17,000), and "Village Police" (Rs. 3,000). The increase under "District Executive Force" was chiefly under Supplies and Services and Contingencies, the expenditure on which accounts was unusually high in the last two months of the year.



24. *Marine*.—The total charges under this head amounted to Rs. 9,44,000 against Rs. 8,61,000, the revised estimate submitted to the Government of India. This estimate included a provision of only Rs. 25,000 to meet a part of the cost of the new pilot vessel to replace the *Cataraon*, which is under construction at the Government dockyard at Bombay. The actual payment, however, on this account was Rs. 99,307. The charges for "Purchase of marine stores and coal for the building, repairs and outfit of vessels" also exceeded the revised estimate by Rs. 15,000.

25. *Medical*.—There was an increase of expenditure under "Hospitals and Dispensaries," and the total charges of the department amounted to Rs. 16,13,000 against Rs. 16,00,000, the revised estimate passed by the Government of India. There was, however, a corresponding increase in receipts.

26. *Political*.—The original estimate under this head, amounting to Rs. 29,000, was raised to Rs. 37,000 in the revised estimate. The actual charges, however, amounted to Rs. 18,000 only. The decrease was mainly under the head "Durbar presents and allowances to Vakools, &c."

27. *Stationery and Printing*.—The original budget estimate under this head, amounting to Rs. 9,90,000, was raised by the Local Government to Rs. 12,48,000, and by the Government of India to Rs. 13,08,000 on information furnished by the Superintendent of Stationery, to meet a large increase of expenditure under "Stationery supplied from Central Stores." The actual charges under the sub-head, however, exceeded the revised estimate by Rs. 47,000. The increase is attributed to the large supplies furnished to the Survey and Settlement Department in connection with the settlement operations now in progress. The total charges under the head amounted to Rs. 13,56,000.

28. *Miscellaneous*.—There was an increase of expenditure under "Donations for charitable purposes" and under "Miscellaneous and Unforeseen charges" owing in the latter case to the adjustment of the excess charges on account of the telegraph lines from Rampur Hat to Dumka and from Chittagong to Demagiri. The total "Miscellaneous" expenditure amounted to Rs. 2,12,000, whereas the revised estimate passed by the Government of India stood at Rs. 1,98,000.

29. *Irrigation—Minor Works*.—The charges in 1892-93 amounted to Rs. 13,94,000 against Rs. 15,46,000 passed by the Government of India as the revised estimate of the year. The saving is partly due to excess provision having originally been made for establishment and also to the amount provided for in the estimate for original works not being fully worked up to.

30. *Civil Works*.—The expenditure of the Public Works Department amounted to Rs. 27,24,000 falling but little short of Rs. 27,65,000, the revised estimate for the year. The saving is due to short outlay on the Collector's residence at Darbhanga and the Registration building at Dacca, and to a sum of Rs. 17,000 not having been appropriated during the year.

31. *Contributions*.—The estimate of Rs. 12,50,000 has been increased by one lakh, that being the sum which Government has decided to contribute towards the heavy expenditure incurred by the Darbhanga District Board on relief works and other famine charges during 1891-92 and 1892-93.

32. *Closing balance*.—According to the revised estimate now adopted, the closing balance of the past year will have been Rs. 23,47,000 against Rs. 23,02,000 estimated by this Government, and Rs. 22,46,000 anticipated by the Government of India when passing the estimates for the current year.

### PART III.

#### BUDGET ESTIMATE, 1893-94.

33. The Lieutenant-Governor has already in separate Resolutions reviewed the estimates of receipts and charges for the current year under each head of account: later information, however, has led to a modification of these in some respects. The following table shows the estimates as submitted to the Government of India, the figures as passed by that Government, and the estimates which the Lieutenant-Governor has finally resolved to adopt. The figures now adopted do not include under the several service heads any provision for "Exchange Compensation Allowance" the payment of which has recently been sanctioned by the Secretary of State to European and Eurasian

servants of Government not domiciled in India. The Government of India has already decided that the allowances will be charged to the same head as pay, and will be Imperial or Provincial to the same extent as pay is Imperial or Provincial, and that no adjustment will be made between Imperial and Provincial funds to cover the Provincial share of the expenditure. The Accountant-General, who was asked to report on the effect of these orders on the Provincial revenues of Bengal, stated that, owing to doubt regarding the number and pay of officers who would be adjudged entitled to the allowance, an estimate could only be framed by the light of the actual charges recorded in the accounts. He has, however, promised to submit, later on in the year, a report on the subject based upon the experience gained from the first few months' operation of the scheme. Pending the receipt of this report, a lump provision of a lakh and a quarter has been made under "Miscellaneous;" but when the estimates shall have been prepared by the Accountant-General, the necessary adjustments will be made under the different service heads:—

RECEIPTS.	Estimate submitted to the Government of India.	Estimate passed by the Government of India.	Estimate now adopted.	EXPENDITURE.	Estimate submitted to the Government of India.	Estimate passed by the Government of India.	Estimate now adopted.
1	2	3	4	5	6	7	8
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.
Opening balance ... ..	25,02,000	22,16,000	22,47,000	Direct demand on the Revenue—			
Principal heads of Revenue—				1. Grants and drawbacks ...	1,33,000	1,33,000	1,33,000
I.—Land Revenue (Proper ...)	99,88,000	99,88,000	99,88,000	2. Assignments and compensations ...	1,61,000	1,61,000	1,61,000
III.—Salt ... ..	90,000	90,000	75,000	3. Land Revenue ... ..	31,13,000	31,13,000	24,23,000
IV.—Stamps ... ..	1,17,75,000	1,17,75,000	1,20,00,000	4. Salt ... ..	41,000	41,000	41,000
V.—Excise ... ..	28,75,000	28,75,000	23,75,000	5. Stamps ... ..	4,61,000	4,61,000	4,61,000
VI.—Provincial rates ... ..	45,61,000	45,61,000	46,15,000	6. Excise ... ..	1,79,000	1,79,000	1,79,000
VII.—Customs ... ..	56,000	56,000	56,000	7. Provincial rates ... ..	3,86,000	3,86,000	4,15,000
VIII.—Assessed Taxes ... ..	22,00,000	21,65,000	21,15,000	8. Customs ... ..	5,52,000	5,52,000	5,58,000
IX.—Forests ... ..	3,87,000	3,87,000	3,87,000	9. Assessed taxes ... ..	96,000	96,000	94,000
X.—Registration ... ..	7,10,000	7,10,000	7,35,000	10. Forests ... ..	2,41,000	2,41,000	2,39,000
Total ... ..	3,12,92,000	3,12,57,000	3,16,15,000	11. Registration ... ..	3,67,000	3,67,000	3,67,000
				Total ... ..	60,60,000	61,56,000	60,91,000
XII.—Interest ... ..	1,82,000	1,89,000	1,65,000	13. Interest on ordinary debt ...	1,38,000	1,38,000	1,38,000
Receipts by Civil Department—				Post Office, Telegraph and Mint—			
XVI.—Law and Justice (Courts of Law ...)	8,70,000	8,70,000	9,00,000	14. Post Offices ... ..	3,000	3,000	5,000
XVII.—Police ... ..	9,59,000	9,59,000	9,50,000	Salaries and expenses of Civil Department			
XVIII.—Marine ... ..	9,12,000	9,12,000	9,12,000	18. General Administration ...	15,02,000	15,02,000	16,40,000
XIX.—Education ... ..	5,71,000	5,71,000	5,71,000	19. Law and Justice (Courts of Law ...)	85,28,000	85,28,000	85,28,000
XX.—Medical ... ..	1,51,000	1,51,000	1,74,000	20. Police ... ..	21,79,000	21,79,000	21,72,000
XXI.—Scientific and other Minor Departments.	1,62,000	1,62,000	1,52,000	21. Marine ... ..	55,84,000	55,84,000	66,81,000
Total ... ..	38,50,000	38,50,000	38,08,000	22. Education ... ..	10,47,000	10,47,000	9,73,000
Miscellaneous—				23. Medical ... ..	25,73,000	25,73,000	25,66,000
XXII.—Receipts in aid of superannuation.	56,000	56,000	75,000	24. Political ... ..	15,89,000	15,89,000	16,20,000
XXIII.—Stationery and Printing ...	1,07,000	1,07,000	1,20,000	25. Scientific and other Minor Departments.	29,000	29,000	29,000
XXV.—Miscellaneous ... ..	7,96,000	7,96,000	8,29,000	26. Scientific and other Minor Departments.	3,64,000	3,64,000	4,43,000
Total ... ..	9,59,000	9,59,000	10,24,000	Total ... ..	2,54,85,000	2,35,40,000	2,36,58,000
Railways—				Miscellaneous—			
XXVI.—State Railways (net receipts)	31,50,000	32,00,000	32,00,000	29. Superannuation, &c. ... ..	17,50,000	17,50,000	17,65,000
Irrigation—				30. Stationery and Printing ... ..	13,05,000	13,05,000	13,50,000
XXIX.—Major Works (direct receipts)	14,50,000	14,50,000	15,00,000	32. Miscellaneous ... ..	2,23,000	2,23,000	3,62,000
XXX.—Minor Works and Navigation—				Total ... ..	32,84,000	32,84,000	35,07,000
By Public Works Department ...	8,15,000	8,15,000	8,15,000	Railways (Revenue account)—			
By Civil Department ... ..	1,17,000	1,17,000	1,17,000	40. Subsidized Companies—Land, &c. ...	1,000	1,000	3,000
Total ... ..	23,82,000	23,82,000	24,32,000	41. Miscellaneous Railway expenditure			1,000
Buildings and Roads—				Total ... ..	1,000	1,000	1,000
XXXII.—Civil works—				Irrigation—			
By Public Works Department ...	1,70,000	1,70,000	2,55,000	42. Major Works—			
By Civil Department ... ..	2,30,000	2,30,000	2,30,000	Working expenses ... ..	13,08,000	13,08,000	13,08,000
Total ... ..	4,00,000	4,00,000	4,85,000	Interest on debt ... ..	21,40,000	24,48,000	24,44,000
Contributions ... ..				43. Minor Works and Navigation—			
Total ... ..	4,24,15,000	4,22,90,000	4,28,17,000	By Public Works Department ...	15,58,000	15,55,000	15,57,000
GRAND TOTAL ... ..	4,47,17,000	4,44,76,000	4,50,84,000	By Civil Department ... ..	4,000	4,000	4,000
				Total ... ..	54,08,000	54,08,000	54,08,000
				Buildings and Roads—			
				44. Civil Works—			
				By Public Works Department ...	27,48,000	27,43,000	25,40,000
				By Civil Department ... ..	1,02,000	2,25,000	2,25,000
				Total ... ..	29,36,000	29,68,000	28,74,000
				Contributions ... ..	11,50,000	10,00,000	12,00,000
				Total ... ..	4,24,65,000	4,28,04,000	4,28,80,000
				Closing balance ... ..	22,51,000	20,72,000	21,75,000
				GRAND TOTAL ... ..	4,47,17,000	4,44,76,000	4,50,84,000
				Provincial deficit (—) ... ..	(—) 51,000	(—) 1,74,000	(—) 72,000

## RECEIPTS.

34. *Lund Revenue*.—The total collections in 1892-93 amounted to Rs. 3,84,96,000, and the estimate for 1893-94 has been placed by the Government of India at Rs. 3,84,33,000. The average receipts during the past five years have been Rs. 3,84,50,000. The collections in the first five months of the current year amounted to Rs. 71,11,000 against Rs. 74,38,000 obtained in the corresponding period of last year. This decrease is probably due to the floods which have affected the prosperity of the raiyats, and caused payments to be temporarily withheld; but there is no reason to believe that the estimate for the current year will not be reached, and it will accordingly be retained. The provincial share will thus remain Rs. 99,88,000. The adjustments between Imperial and Provincial show the following results:—

	Estimate of the Govern- ment of India.	Estimate now adopted.
	Rs.	Rs.
Lump contribution under the new contract ... ..	(—)14,39,000	(—)14,39,000
Grant for the Hidgellee Tidal Canal ... ..	+1,00,000	+1,00,000
Grant on account of Imperial build- ings placed under Local officers ...	+10,000	+36,000
Interest on advances for the Hidgellee Tidal Canal ... ..	(—)21,000	(—)21,000
Contribution to Provident Fund for employés of the Tirhut State Railway for July 1890 to March 1892 ... ..	.....	(—)9,000
Total ... ..	(—)13,50,000	(—)13,33,000

The last item is still under discussion. The Government of India while passing orders on the budgets for 1893-94 allowed the following adjustment on account of the transfer of Imperial Civil and Military Works to the management of local agency:—

	Rs.	Rs.
Annual grant for maintenance ... ..	8,341	
Percentage charges for establishment and tools and plant on above ... ..	2,044	
		10,385
In round numbers ... ..	.....	10,000

The construction, maintenance and repairs of several other Imperial buildings have since been entrusted to local bodies. The Imperial Public Works estimates will be reduced by the amount of the grants provided for these works, but a credit for an additional sum of Rs. 26,000 will be provisionally taken under this head, that being the aggregate of the amounts made over to the local funds and to the Provincial Public Works budget on account of these works.

35. *Salt*.—The rent of warehouses shows a falling off of Rs. 6,365 during the first five months, amounting to Rs. 18,194, as compared with Rs. 24,559 during the corresponding period of last year. The total receipts in 1892-93 were Rs. 84,000, and the Lieutenant-Governor thinks that it will not be safe to place the estimate for the current year at a higher figure than Rs. 75,000 instead of Rs. 90,000, the original estimate for the year.

36. *Stamps*.—The total revenue from stamps has been estimated at Rs. 1,57,00,000, being Rs. 1,55,000 more than the latest revised estimate of last year, which amounted to Rs. 1,55,45,000. The Comptroller-General's latest statement shows that the receipts during the first five months of the current year have exceeded those of the corresponding period of last year by Rs. 3,64,000. In view of these figures the estimate is raised to Rs. 1,60,00,000, of which the Provincial share will be Rs. 1,20,00,000. The question of lowering the fees

levied for the issue of processes is now under consideration, but as the matter is not yet ripe for final settlement, no reduction in the estimate has been made on this account.

37. *Excise*.—The estimate of total revenue under this head as passed by the Government of India amounts to Rs. 1,15,00,000. The Comptroller-General's statements show that the actuals in 1892-93 amounted to Rs. 1,15,95,000, and the receipts of the first five months of the current year exceed those of the same five months of last year by Rs. 2,98,000. The results of the recent settlements of shops for the sale of country spirits just received from the Board of Revenue show a net increase of Rs. 2,41,923 in the demand for the current year, though the number of licenses settled is less than that of the past year by 98. The number of unsettled shops is still large, but the Excise Commissioner has taken steps to hasten the settlement of them. In view of the increased revenue already collected, the Lieutenant-Governor thinks that the estimate can safely be raised to Rs. 1,19,00,000. The Provincial share will thus amount to Rs. 29,75,000.

38. *Provincial Rates*.—The following statement compares the receipts under this head for three years :—

HEADS.	Actuals, 1891-92.	Latest re- vised esti- mate, 1892-93.	Sanctioned estimate, 1893-94.	Estimate now proposed.
1	2	3	4	5
	Rs.	Rs.	Rs.	Rs.
(1) Public Works Cess ...	40,79,753	41,95,000	41,50,000	41,50,000
(2) General management of Wards' Estates.	80,409	77,000	80,000	1,25,000
(3) Proportionate cost of collect- ing Road Cess.	3,64,355	3,44,000	3,31,000	3,40,000
Total ...	45,24,517	46,16,000	45,61,000	46,15,000

The current demand of the Public Works Cess for 1892-93 was Rs. 40,94,343, and the actual collections were Rs. 41,95,000. It is by no means certain that the receipts during the current year will be as high as in the previous year. The arrear balance is now much smaller than in 1892-93, and the floods, which have affected the prosperity of the raiyats, may affect the collections. On the other hand some increase is anticipated on account of revaluations, which have been completed and been given effect to from 1st April 1893. Taking all the circumstances into consideration, the Lieutenant-Governor would retain the estimate originally adopted. The estimate under (3) appears to be low compared with the actuals of 1891-92 and the latest figure for 1892-93. Since the budget was passed, the Board of Revenue have increased the estimate of total cost of collecting the cess by Rs. 12,555 in consequence of the revaluations now in progress. The estimate will be raised by two-thirds of this amount, representing the proportionate cost of collecting road cess or to Rs. 3,40,000. The rules under the Management of Private Estates Act of 1892, which are under the consideration of Government, propose to raise the estimate of receipts from the Management Rate from Rs. 80,000 to Rs. 1,40,000, but as, the rules have not yet been finally passed, the full increase cannot be provided for during the current year. The estimate will be raised to Rs. 1,25,000. The total estimate under Provincial Rates will therefore stand at Rs. 46,15,000.

39. *Customs*.—The estimate under this head amounts to Rs. 56,000 against Rs. 50,000, the latest revised estimate for 1892-93. The collections in the first five months of the current year amounted to Rs. 21,974 against Rs. 19,469 obtained in the corresponding period of last year. The estimate will be retained.

40. *Assessed Taxes*.—The revenue under this head showed a progressive increase from 1888-89 to 1891-92, and the estimate for 1893-94, which was based on the revised estimate for 1892-93, was placed at Rs. 43,30,000. The actuals for 1892-93 aggregated only Rs. 42,28,000 against the revised estimate

of Rs. 43,10,000 and showed a considerable falling off, attributable to larger collections of arrears in the year 1891-92. The decrease having occurred in the closing months of 1892-93 was not foreseen and provided for in the revised estimate for that year. The collections during the first five months of the current year again show a decrease of Rs. 30,000 mainly in Calcutta, as compared with those of the corresponding period of last year. It would perhaps be premature to assume that the collections in the current year will be less than those realised in 1892-93; but looking to all the circumstances, it would not be safe to adhere to the estimate passed in March last, which will therefore be reduced by one lakh, viz. to Rs. 42,30,000. The Provincial share will stand at Rs. 21,15,000.

41. *Registration*.—The estimate under this head amounts to Rs. 14,20,000 against Rs. 14,34,000, the latest revised estimate for 1892-93. The actuals in the first five months of the current year show an increase of about Rs. 33,000 over those of the corresponding period of last year. The estimate will be raised to Rs. 14,70,000. The Provincial share will stand at Rs. 7,35,000.

42. *Interest*.—The original estimate of the Local Government under this head for 1893-94, based on an anticipation of a net outgoing of Rs. 12,61,000 from the treasury as loans on Provincial account was Rs. 1,82,000, and it was passed by the Government of India. That Government have, however, made a lump deduction of Rs. 7,50,000 from the estimate of net outgoings proposed by this Government. This deduction will necessarily reduce the Provincial receipts from Interest by nearly Rs. 17,000. The estimate will therefore be altered from Rs. 1,82,000 to Rs. 1,65,000.

43. *Law and Justice—Courts of Law*.—The total receipts under this head in the first five months of the current year show an increase of Rs. 34,000 over those of the corresponding period of last year. The latest revised estimate for 1892-93 amounts to Rs. 8,68,000. The estimate for the current year will be raised from Rs. 8,76,000 to Rs. 9,00,000.

44. *Marine*.—The receipts during the first five months of the current year amount to Rs. 3,23,756 against Rs. 3,32,114 obtained in the corresponding period of last year, showing a decrease of Rs. 8,358. The decrease is under the Calcutta Pilotage receipts. The aggregate receipts in 1892-93 were Rs. 9,20,000, and the estimate for the current year amounting to Rs. 9,12,000 will be retained.

45. *Medical*.—The Government of India placed the revised estimates under this head for 1892-93 at Rs. 1,50,000, and the estimate for the current year at Rs. 1,51,000. The latest revised estimate for 1892-93 now stands at Rs. 1,70,000. The receipts in the first five months of the current year show an increase of Rs. 3,170 over those of the corresponding period of last year. The estimate will be raised to Rs. 1,75,000.

46. *Scientific and other Minor Departments*.—The total of receipts under this head in 1892-93 amounted to Rs. 1,90,000. This includes a special credit of Rs. 25,000, the amount contributed by Sir Dinshaw Manockjee Petit for the construction of a veterinary hospital, and the estimate for the current year was placed at Rs. 1,62,000. The receipts from "Cinchona Plantations" that is from the sale of cinchona and quinine amounted to Rs. 1,18,000 in 1892-93, and in the first five months of the current year show an increase of Rs. 8,000 over those of the corresponding period of last year: some quinine has also been bought from Messrs. Kilburn and Company lately at a cost of Rs. 15,762, and this will be available for sale to the public. The estimate under this sub-head, which is Rs. 1,09,000, may be raised to Rs. 1,25,000. But looking to the falling off of emigration fees from Rs. 21,000 in the first five months of last year to Rs. 11,000 in the corresponding five months of the current year, it will not be safe to disturb the original total estimate, which will be retained.

47. *Superannuation*.—The revised estimate of Provincial receipts under this head for 1892-93 now stands at Rs. 78,000. The receipts during the first five months of the current year very nearly correspond with those obtained in the same period of last year. The estimate will be raised from Rs. 56,000 to Rs. 75,000.

• 48. *Stationery and Printing*.—The total Provincial receipts in the first five months of the current year show an increase of about Rs. 8,000 over those of the corresponding period of last year. The latest revised estimate for 1892-93

now stands at Rs. 1,15,000. The estimate for the current year will be raised from Rs. 1,07,000 to Rs. 1,20,000.

			Rs.	The latest revised estimate of receipts under this head for 1892-93 now stands at Rs. 8,29,000. The average receipts in each of the past five years amounted to Rs. 8,15,000. The actuals during the first five months of the current year show an increase of Rs. 29,000 over those of the corresponding period of last year. The estimate for the current year will be raised from Rs. 7,96,000 to Rs. 8,29,000, the latest revised estimate for 1892-93.
1888-89	...	...	8,35,000	
1889-90	...	...	8,03,000	
1890-91	...	...	7,70,000	
1891-92	...	...	8,36,000	
1892-93	...	...	8,29,000	
Total	...	...	40,73,000	
Average per year	...	...	8,15,000	

50. *Railways.*—The gross earnings of the Eastern Bengal State Railway System from the 1st April to the 23rd September 1893 amounted to Rs. 52,91,000 against Rs. 51,66,000 obtained from the 1st April to the 24th September 1892, showing an increase of Rs. 1,25,000. The estimate of the Government of India will be retained.

			Rs.	The Government of India placed the revised estimate, 1892-93, under this head at Rs. 16,50,000, and the estimate for the current year at Rs. 14,50,000. The returns of the Examiner of Public Works Accounts show that the receipts in the first four months of the current year were Rs. 1,39,000 less than those of the corresponding period of past year. The latest revised estimate for 1892-93 now stands
1888-89	...	...	13,94,000	
1889-90	...	...	15,21,000	
1890-91	...	...	13,47,000	
1891-92	...	...	16,04,000	
1892-93	...	...	18,88,000	
Total of five years	...	...	77,53,000	
Average per year	...	...	15,51,000	

at Rs. 18,88,000, and the average actuals of the past five years amounted to Rs. 15,51,000. In view of the fluctuating character of those receipts depending to some extent on the rainfall, which has this year been generally plentiful, it will not be safe to anticipate that the average of the last five years will be attained; but looking to the large collections of the last two years, the Lieutenant-Governor would place the estimate at Rs. 15,00,000.

52. *Irrigation Minor Works.*—The latest revised estimate for 1892-93 amounts to Rs. 7,54,000, and the estimate for the current year is Rs. 8,15,000. The receipts in the first four months of the current year show an improvement of Rs. 18,000 over those of the corresponding period of last year. The average actual receipts of the past five years were Rs. 8,15,000. The estimate will be retained.

53. *Civil Works in charge of the Public Works Department.*—The revised estimate for 1892-93, as passed by the Government of India, was Rs. 2,10,000, and the estimate for 1893-94 is Rs. 1,70,000. The revised estimate for last year included a sum of Rs. 80,000, being the Government share of the profits payable by the Darjeeling-Himalayan Railway Company for two years, while the estimate for the current year includes Rs. 40,000 on this account, being the amount for one year. As already stated in paragraph 19 above, no payment was made by the Railway Company in 1892-93, but in 1893-94 a sum of Rs. 95,250 has been paid up to date on account of—

			Rs.
The year ending 30th June	1890	...	33,142
Ditto	1891	...	26,771
Ditto	1892	...	35,337
Total		...	95,250

If payment for the year ending 30th June 1893 is also made during the year, the total receipts from the Company may amount to, more or less, Rs. 1,25,000 against Rs. 40,000 provided in the estimate. The estimate may be raised to Rs. 2,55,000.

#### EXPENDITURE.

54. *Land Revenue.*—Since the budget was passed placing the estimate under this head at Rs. 34,19,000, an additional establishment has been sanctioned at an estimated cost of Rs. 4,000 for the office of the Deputy Commissioner of the Sonthal Parganas, and the estimate must therefore be raised to Rs. 34,23,000.

55. *Provincial Rates.*—The estimate under this head amounts to Rs. 3,86,000 against Rs. 4,34,000, the actuals of 1892-93. As stated in paragraph 37 above, an additional grant of Rs. 12,555 has been sanctioned at the instance of the Board of Revenue on account of revaluations in progress, but as the total receipts from the cess will, it is anticipated, be less than in 1892-93, a provision of Rs. 4,15,000 for the cost of collecting the cess, &c., may be sufficient for the current year.

56. *Customs.*—An extra establishment for the steam-launch *Ivy* of the Customs Preventive Department has been sanctioned at an additional cost of Rs. 3,400, and some provision must be made for additional preventive establishment costing Rs. 550 per month, which will be required if the Kidderpur Docks are largely used. It will be sufficient if the estimate be raised from Rs. 5,52,000 to Rs. 5,58,000.

57. *Assessed Taxes.*—The total expenditure for the collection of Income-Tax was originally estimated at Rs. 1,93,000, including Rs. 2,400 for house allowance to the Collector of Income-tax, Calcutta. The Government of India have sanctioned the grant of an allowance at the rate of Rs. 100 per mensem, which order will effect a saving of Rs. 1,200 on this account. On the recommendation of the Board of Revenue, a further reduction of Rs. 4,270 has been made in the income-tax establishment. The total saving may therefore be Rs. 5,470, and the total grant may be placed at Rs. 1,88,000. The Provincial share will stand at Rs. 94,000.

58. *Forests.*—The total grant of the Forest Department as passed by the Government of India amounts to Rs. 4,82,000, but a reduction of Rs. 2,500 has been made by the Revenue and Agricultural Department of the Government of India in the Imperial share of the grant for the reorganisation of the Forest Subordinate staff, to provide for the purchase of tramway plant required by the Forest Department in the Andaman, and for the construction of a gymnasium at the Forest School. A similar reduction will be made in the Provincial share. The total grant will then stand at Rs. 4,77,000 and the Provincial share at Rs. 2,39,000.

59. *Post Office.*—The estimate under this head for the current year will be raised from Rs. 3,000 to Rs. 5,000, since the actuals in the first five months of the current year amounted to Rs. 3,447 against Rs. 2,558 in the corresponding period of last year.

60. *General Administration.*—The estimate under this head will be raised by Rs. 4,000 for the purchase of an elephant for the Commissioner of Orissa, and for expenditure on the additional establishment and contingencies of the Legislative Department recently sanctioned in consequence of the expansion of the Legislative Council under the New Councils Act. In view of the actuals of 1892-93, amounting to Rs. 16,37,000, and those of the first five months of the current year, showing an increase of Rs. 6,000 over those of the corresponding period of last year, the estimate for 1893-94 will be placed at Rs. 16,40,000.

61. *Jails.*—The estimate under this head will be reduced by Rs. 6,860, which has been made over to the Public Works Department for strengthening and executing repairs to the barracks in the Rajshahi Central Jail, and for the conversion of No. 4 Yard of the Alipore Jail into a workshop. The grant will stand at Rs. 21,72,000.

62. *Police.*—The Government of India have raised the estimate of this Government by Rs. 75,000 for Lushai charges. This will again be raised by Rs. 4,000 to meet the cost of the additional police force sanctioned for the Patuakhali Municipality, of arrears of rent due to the East Indian Railway Company for accommodation of the State Railway Police, and of the charges for police guards employed at the Secretariat Building in Calcutta: the last charge has hitherto been borne by the Public Works Department, but will now be adjusted in the Civil Department. Additional grants have also been made for five additional Police Inspectors to be employed in the Patna Division at a total cost of Rs. 4,000, and for the employment of 250 constables with a proportion of superior officers for eight months: adding a sum of Rs. 600 for accoutrements, the total extra cost under this head will hardly be less than Rs. 16,000. A sum of Rs. 2,000, being the moiety of cost of a police van for Calcutta, has also been sanctioned. The estimate must therefore be raised by Rs. 22,000 or to Rs. 56,81,000 in all.



63. *Marine*.—The estimate passed by the Government of India, amounting to Rs. 10,37,000, includes a provision of Rs. 1,50,000 for the balance of the cost of constructing a pilot vessel to replace the *Coleroon*. The charges in 1892-93 on this account amounted to Rs. 99,307 against Rs. 25,000, provided in the revised estimate of the year: a reduction of Rs. 74,000 will therefore be made on this account this year. On the other side an increased provision of Rs. 10,000 will be made for payment of compensation to Captain Petley. The estimate will thus stand at Rs. 9,73,000.

64. *Education*.—The estimate under this head, amounting to Rs. 25,73,000, has been reduced by Rs. 14,000 on account of the following charges which have been eliminated:—

- (a) A grant of Rs. 7,000 to the District Board of Malda for the construction of the new zilla school building, of which Rs. 5,000 have been met from the Public Works Department budget, and only Rs. 2,000 remain to be provided from the Education budget.
- (b) A donation of Rs. 1,500 towards the construction of a building for St. Mary's House of Charity.
- (c) A grant of Rs. 2,500 to the Public Works Department for furniture of the new Art School.
- (d) A grant of Rs. 3,019 for the construction of two additional rooms in the Taki Government School building.
- (e) A grant of Rs. 5,123 for the construction of two additional rooms in the zillah school building at Rangpur.

Against these reductions an additional grant of Rs. 6,270 has been made for the employment of a clerk on Rs. 15 per mensem, for each Deputy Inspector of Schools in thirty-eight Board districts with effect from the 1st April 1893. A further provision of Rs. 820 has been sanctioned under the head "Grant for the encouragement of useful publications" to provide for the salary of two clerks employed under Babu Sarat Chunder Dass for the completion of the Tibetan Dictionary. The total grant now stands at Rs. 25,66,000.

65. *Medical*.—The estimate of the Government of India has been raised by Rs. 10,000 to provide for additional remuneration which it is proposed to pay to Civil Surgeons' clerks for doing vaccination duty, for the payment of municipal taxes on the Campbell Medical School which have been raised from Rs. 1,287 to Rs. 4,191, for increased supernumerary pay of Civil Hospital Assistants for nine months, and for other petty increases in the Vaccination Department recently sanctioned by Government. The charges under Hospitals and Dispensaries during the first five months of the current year show an increase of Rs. 26,000 over those of the corresponding period of last year. Taking all these circumstances into consideration, the total grant for the year will be placed at Rs. 16,20,000 against Rs. 16,13,000, the latest revised estimate for 1892-93.

66. *Scientific and other Minor Departments*.—The estimate under this head has been raised by Rs. 30,000 to provide for the following charges recently sanctioned:—

- (a) Publication of a revised edition of Mr. Risley's *Ethnographic Glossary*, including Mr. Risley's deputation allowance.
- (b) Grant to the Indian Museum for Mr. Mukerji's archaeological enquiries in Orissa.
- (c) Purchase of quinine from Messrs. Kilburn and Company.

A provision of Rs. 50,000 must also be made under this head for the payment of the first instalment to Messrs. Kilburn and Company of the purchase money of the Nimbong Cinchona Plantation. A further grant of Rs. 5,000 is also necessary for effecting certain urgent improvements in the Royal Botanic Gardens, Calcutta. The total estimate will be raised to Rs. 4,49,000.

67. *Superannuation*.—The estimate under this head amounts to Rs. 17,50,000. The actual charges in past years amounted to—

				Rs.	Increase.	
1888-89	...	...	...	13,70,000	.....	
1889-90	...	...	...	14,36,000	66,000	"
1890-91	...	...	...	15,13,000	77,000	
1891-92	...	...	...	16,00,000	87,000	
1892-93	...	...	...	17,03,000	1,03,000	
					<hr/>	3,33,000



The increase in the last four years amounted to Rs. 3,33,000, or an average of Rs. 83,000 a year. The actuals in the first five months of the current year show an increase of Rs. 25,000 over those of the corresponding period of last year. In view of these figures, it will not be safe to place the estimate for the current year at a lower figure than Rs. 17,65,000.

68. *Stationery and Printing*.—The expenditure under this head is estimated at Rs. 13,05,000 against Rs. 13,56,000, the amount expended in 1892-93. The actuals of the first five months of the current year show an increase of Rs. 15,000 over those of the corresponding period of last year. The estimate will be raised to Rs. 13,80,000.

69. *Miscellaneous*.—The estimate of Rs. 2,29,000 under this head has been raised to Rs. 2,32,000 to provide for a donation of Rs. 1,500 towards the construction of a building for St. Mary's House of Charity, and for the maintenance of the telegraph line between Rampur Hât and Dumka. Applications for grants-in-aid from some of the charitable societies are under consideration, and it has been proposed to make a lump provision of Rs. 1,25,000 for Exchange Compensation Allowance under this head. The total estimate will be placed at Rs. 3,62,000.

70. *Subsidized Railways*.—An additional grant of Rs. 1,563-3 has been sanctioned for land charges in connection with the Duars Railway. The total grant now stands at Rs. 2,843-3 or Rs. 3,000 in round numbers.

71. *Miscellaneous Railway Expenditure*.—A grant of Rs. 1,206-10 has been sanctioned to the Public Works Department to adjust the charges already incurred by the Manager of the Eastern Bengal State Railway for establishment employed on marking out the land for the Sultanpore-Bogra Railway. This amount will be entered in the budget.

72. *Irrigation Major works*.—The estimate of Interest on debt as last revised by the Public Works Department amounts to Rs. 24,44,000 against Rs. 24,48,000 passed by the Government of India. The revised figure has been adopted.

73. *Irrigation Minor Works*.—The estimate under this head as passed by the Government of India amounts to Rs. 15,58,000. A sum of Rs. 1,023 has been made over to the District Board of Burdwan for the construction of culverts on the Grand Trunk Road, and a further sum of Rs. 66-4 to the Road Account, Sonthal Parganas, for reporting gauge readings. The total grant now stands at Rs. 15,57,000, in round numbers.

74. *Civil Works by Public Works Department*.—The grant under this head was originally fixed at Rs. 27,43,000. It now stands at Rs. 25,53,840 in consequence of the following additions and deductions:—

	Rs.	Rs.
As originally fixed ... ..	...	27,43,000
<hr/>		
Additions—		
For percentage charges for establishment, tools and plant on Imperial works transferred to the management of local officers ... ..	6,377	
For two additional rooms in the Taki Government School building ... ..	3,019	
By sale proceeds of the old police buildings at Jalpaiguri ... ..	6,930	
For furniture for the new Art School ... ..	2,500	
For two additional rooms to the zilla school building at Rangpur ... ..	5,123	
For the completion of a new Court-house at Siliguri ... ..	3,000	
For strengthening and executing repairs to the barracks of the Rajshahi Central Jail ... ..	4,322	
For the conversion of No. 4 yard of the Alipore Jail into a workshop ... ..	2,538	
	<hr/>	33,809

**Deductions—**

Grant to the Deputy Commissioner, Darjeeling, for a new road at Siliguri ...	620	
Grant for the maintenance of telegraph line between Rampur Hât and Dumka ...	1,835	
Grant for Police guards employed in keeping watch and ward at Writers' Buildings ...	1,632	
Grants to the Bankipore and Howrah Municipalities for the repairs of roads ...	2,002	
Grants to the several District Funds for Public Works ...	1,74,857	
Grants to the District Road Accounts for ditto ...	16,523	
Grants to the District Road Funds for ditto ...	26,000	
		2,22,969
Net deduction ...		1,89,160
Grand Total		25,53,840

An additional grant of Rs. 95,000 will be made to the Public Works Department to enable them to undertake the repair of the Darjeeling Hill cart road, and the Teesta Valley road which have been damaged by rain and floods (Rs. 50,000), to carry out repairs urgently required for the Eden Sanitarium Darjeeling (Rs. 30,000), and for the construction of buildings at the Alipur sub-division in the Jalpaiguri district (Rs. 15,000). The total grant will now stand at Rs. 26,49,000.

75. *Civil Works in charge of Civil Officers.*—The difference, Rs. 32,000, between the estimates of the Local Government and the Government of India represents the special provision for the construction of mule bridges over the Tuichang, Phyrang, and Sailang rivers in the South Lushai Hills. The estimate will be retained.

76. *Contributions.*—The sanctioned grants to the various Incorporated Local Funds already amount to Rs. 11,76,746, thus—

	Rs.	Rs.
<b>To the District Funds—</b>		
Annual grant to establish equilibrium between receipts and charges transferred from Provincial account ...	4,45,035	
Annual grant for the maintenance of certain Provincial roads ...	2,29,720	
Annual grant for the maintenance of Imperial Civil Works ...	7,542	
Annual grant for the maintenance of Provincial Civil Works ...	1,27,926	
Annual grant for allowance to Engineers ...	10,200	
Ditto to the Malda District Board for establishment ...	600	
Annual grant to the Malda District Board for maintenance of embankments ...	637	
Annual grant to the Cuttack District Board for repairs of road ...	862	
Special grant to the Burdwan District Board for arrears of contribution ...	24,843	
Special grant to the Howrah District Board for arrears of contribution ...	9,699	
Special grant for Imperial Works in 1893-94 ...	21,403	
Ditto for Provincial Civil Works in 1893-94 ...	1,79,344	
		10,57,811
<b>To the District Road Funds—</b>		
As shown in the Incorporated Local Funds Budget for 1892-93 ...	36,463	
Less amount to be provided by the Board of Revenue from the grant for the management of estates ...	2,500	
		33,903

To the District Road Accounts—

As shown in the Incorporated Local Funds		
Budget ...	87,032	
Less grant to the Chittagong Hill Tracts to be met from the Public Works budget ...	2,000	
		85,032
Total ...		11,76,746

The Lieutenant-Governor has acceded to an application from the District Board of Bhagalpur to be reimbursed Rs. 21,881, being the expenditure incurred by that body on relief works during the scarcity in 1891-92 in excess of the budget provision, and has agreed to make available Rs. 10,000 for expenditure by the Commissioner of Dacca on Famine Relief in that Division during the current year. The total grant will now therefore be placed at Rs. 12,09,000.

77. *Closing balance.*—According to the estimates passed by the Government of India, it was expected that the year would close with a credit balance of Rs. 20,72,000. According to the estimate now adopted, the closing balance will be Rs. 21,75,000 against an opening balance of the year amounting to Rs. 22,47,000. The balance will thus be reduced by Rs. 72,000, and this represents the excess of expenditure over receipts of the year. The total estimate of expenditure now adopted exceeds, however, the total estimate of the Government of India by a net sum of about  $4\frac{3}{4}$  lakhs, which includes  $1\frac{1}{4}$  lakhs for Exchange Compensation Allowance,  $\frac{1}{2}$  lakh for grants-in-aid of Famine Relief and other expenditure of District Boards, 1 lakh for urgent public works,  $\frac{1}{2}$  lakh as part of the purchase money of the Nimbong Cinchona Plantation,  $\frac{3}{4}$  lakh for increase under Stationery and Printing, and  $\frac{1}{4}$  lakh for revaluation of cesses in progress.

By order of the Lieutenant-Governor of Bengal,

J. A. BOURDILLON,

*Offg. Secretary to the Government of Bengal.*

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 18th November, 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL.</b>			
Burdwan Divn.	1 Burdwan Nov. 18, '93	Nil	Weather—seasonable. Prospects of <i>aman</i> rice continue good. <i>Rabi</i> crops are being sown. Prices of common rice:—  <div style="display: flex; align-items: center; justify-content: center;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div>Srs.</div> <div>10 to 14</div> <div>9 to 13</div> <div>15</div> <div>13½</div> </div> <div style="margin: 0 10px;">} per rupee.</div> </div>
	Kalna ..	Nil	
	Katwa ...	Nil	
	Raniganj ...	Nil	
	2 Bankura „ 18, '93	Nil	Weather—generally fair and seasonable. All standing crops doing well. No cattle-disease reported. Fodder and water sufficient. Coarse rice ( <i>new</i> ) selling at Sadar 16 seers per rupee and at Vishnupur 17 seers.
	3 Birbhum „ 18, '93	Nil	Weather—rather warmer by day than is seasonable. <i>Aus</i> crop being harvested; outturn very good. Winter rice crop promises very well. Price of rice as low as 16 seers per rupee in some places.
Presidency Divn.	4 Midnapore „ 18, '93	Nil	Weather—fair; a little cloudy at night. Prospects of crops good. Water and fodder sufficient. Prices of common rice:—  <div style="display: flex; align-items: center; justify-content: center;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div>Srs.</div> <div>12</div> <div>12</div> </div> <div style="margin: 0 10px;">} per rupee.</div> </div>
	5 Hooghly „ 18, '93	Nil	Weather—cool and seasonable. <i>Aman</i> doing well. <i>Rabi</i> cultivation progressing. Fodder and water sufficient.
	Serampore ...	Nil	
	Jahanabad ...	Nil	Weather—seasonable. <i>Aman</i> paddy and sugarcane doing well. Condition of cattle good. Fodder and water sufficient. Price of common rice 10 to 11 seers per rupee.
	6 Howrah „ 18, '93	Nil	
	Ulubaria ...	Nil	
	7 24-Parganas „ 18, '93	Nil	Weather—seasonable. Harvesting of <i>aman</i> has commenced. On the whole the crop is a fair one. Sowing of <i>rabi</i> crops continues. Prices of common rice:—  <div style="display: flex; align-items: center; justify-content: center;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div>Srs. c.</div> <div>9½ to 11 8</div> <div>11 0</div> <div>12 0</div> <div>9 13½</div> </div> <div style="margin: 0 10px;">} per rupee.</div> </div>
Presidency Divn.	8 Nadia „ 18, '93	Nil	Weather—hot during day and cool at night and morning. Sowing of <i>rabi</i> crops going on. Prospects of <i>aman</i> crop fair. Water and fodder sufficient.
	Kushtia ...	Nil	
	Meherpur ...	Nil	
	Chusadanga ...	Nil	
	Ranaghat ...	Nil	Weather—fine and cooler. Prospects of <i>aman</i> good. <i>Chattana dhan</i> being reaped. <i>Rabi</i> crops being sown.
	9 Khulna „ 18, '93	Nil	
	Bagerhat ...	Nil	
Presidency Divn.	Satkhira ...	Nil	Weather—seasonable. Prospects of <i>aman</i> and other winter crops fair. Sowing of <i>rabi</i> going on. Prices generally steady. Fodder and water sufficient.
	10 Jessore „ 18, '93	Nil	
	Jhenida ...	Nil	
	Magura ...	Nil	
	Narail ...	0.04	Weather—getting cooler. Prospects of <i>aman</i> favourable. Sowing of <i>rabi</i> crops and indigo continues. Present state of <i>kalai</i> does not seem to be good. Fodder sufficient for cattle. Common rice sells at 13 seers per rupee.
	11 Bangaon ...	Nil	
	Murshidabad „ 18, '93	Nil	

No.	District and date of return.		Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL—conold.				
CHITTAGONG DIVN.	12	Chittagong Nov. 18, '93	Nil	Weather—seasonable. Prospects of standing crops good. Early <i>aman</i> ripening. <i>Rabi</i> crops are being sown. Prices stationary. Condition of cattle good. Supply of fodder sufficient.
	13	Noakhali „ 18, '93	Nil	Weather—chilly in the morning, but warm in the day and cloudy. <i>Rabi</i> crops are being sown. State of standing crops good, except in Ramganj, where plants are being damaged by a disease called <i>abra</i> . No cattle-disease worth speaking of. Fodder and water sufficient. Price of common rice varies from 10 to 12 seers per rupee.
	14	Tipperra „ 18, '93	Nil	Weather—seasonable. Insects are doing much damage to standing crops in north of district, elsewhere <i>aman</i> promises well. Cattle still dying for want of fodder.
	15	Chittagong Hill Tracts. „ 16, '93	Nil	Weather—foggy in the morning, hot during daytime. Plough-paddy forming ears in all places with fair prospect. Condition of cotton not good. No cattle-disease reported. Common rice sells at 8 seers 14 chitaks per rupee.
DACCA DIVN.	16	Dacca „ 18, '93	Nil	Weather—seasonable. Harvesting of <i>aman</i> paddy commenced; prospects favourable. Sowing of mustard, <i>mug</i> and <i>kalai</i> nearly finished. Common rice selling at from 7 to 11 seers per rupee. Fodder available. No cattle-disease.
	17	Faridpur „ 18, '93	Nil	Weather—seasonable. Condition of standing crops unchanged. Early <i>aman</i> being harvested and <i>rabi</i> crops still being sown. Common rice sells from 10 seers per rupee at Madaripur to 13 seers per rupee at Goalundo. No cattle-disease, and fodder available.
		Goalundo ...	Nil	
		Madaripur ...	Nil	
	18	Backergunge „ 18, '93	Nil	Weather—cloudy at night and occasional breaks of sunshine during day. Prospects of crops fair. Prices of common rice vary from 8 to 10 seers per rupee. Water sufficient, but fodder not quite so in the Sadar subdivision.
19	Mymensingh „ 18, '93	Nil	Weather—seasonable. Prospects of standing crops good. Common rice selling at from 8 to 11 seers per rupee. Condition of cattle good. Supply of fodder sufficient, except in some places in Kishoreganj subdivision.	
RAJSHAHI DIVN.	20	Dinajpur „ 18, '93	Nil	Weather—cool. Prospects of standing crops continue to be as good as possible. Mustard, potatoes and pulses of all kinds are growing well. Prices of rice stationary. Condition of cattle good. Drinking water and supply of fodder plentiful.
		Thakurgaon ...	Nil	
	21	Rajshahi „ 18, '93	Nil	Weather—seasonable, but somewhat cloudy. Prospects good everywhere. Water and fodder-supply ample. No cattle-disease. Price of rice varies from 9 to 13 seers per rupee.
		Nator ...	Nil	
		Naugaon ...	Nil	
	22	Rangpur „ 18, '93	Nil	Weather—fair and cool. No reports from the subdivisions. Rainfall nil. Sadar crop report good. Common rice 9 to 12 seers per rupee.
	23	Bogra „ 18, '93	Nil	Weather—fine and cool. Prospects of <i>aman</i> excellent. Land is being ploughed for winter crops. Common rice sells at 12 seers per rupee. Fodder and water sufficient.
24	Pabna „ 18, '93	Nil	Weather—seasonable. Prospects of standing crops continue good. <i>Khesari</i> , peas, mustard and linseed are being sown. Common rice selling at Rs. 4 to Rs. 4-4 per maund in the Srajamaj and 10½ seers per rupee in the Sadar subdivision. Water-supply and fodder sufficient.	
25	Darjeeling „ 18, '93	Nil	Weather—cool and bright. <i>In the hills</i> :— <i>Aghani dhan</i> , <i>marua</i> , and <i>kalai</i> are ripening. <i>Locates</i> , <i>foee</i> , <i>phaphar</i> , wheat, and barley are progressing. <i>In the Terai</i> :— <i>Kalai</i> , <i>td</i> , and <i>haimanti</i> paddy doing well. Prices of coarse rice:— <div style="display: flex; justify-content: flex-end; align-items: center;"><div style="text-align: right;">Srs.</div><div style="text-align: left;">Hills ... .. 9 Terai ... .. 11 } per rupee.</div></div>	
26	Jalpaiguri „ 18, '93	Nil	Weather—seasonable. Days bright. Prospects of standing crops continue favourable. Price of common rice stationary. Fodder and water-supply sufficient.	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR.</b>			
BRAGALPUR DIV.	27	Monghyr Nov. 18, '93 Nil	Weather—fair and getting cool. Winter rice is ripening; prospects favourable. <i>Kurthi</i> , indigo, and sugarcane doing well. <i>Rabi</i> and poppy are being sown. The plants which have germinated are growing well. Small-pox among cattle towards Sikundra, Lakhiserai, and Nawadib. Fodder and water sufficient. Prices of common rice:—
		Begusarai ... Nil	
		Jamui ... Nil	
	28	Bhagalpur .. 18, '93 Nil	Cold weather has now set in with its usual features. Wheat and other <i>rabi</i> crops are being sown. <i>Kharif</i> harvest has commenced; prospects very favourable. A bumper crop nearly everywhere. Cattle-disease is rife.
		Banka ... Nil	
		Madhipura ... Nil	
		Supaul ... Nil	
	29	Purnea .. 18, '93 Nil	Weather—seasonable; cold. Prospects of <i>aghani</i> excellent. Harvest beginning. <i>Rabi</i> sowing finished favourably. Fodder and water sufficient. Prices stationary.
		Kishanganj .. Nil	
		Araria ... Nil	
	30	Maida .. 18, '93 Nil	Weather—fair and cool. Winter rice is ripe in most places, and the harvesting has commenced; the outturn is expected to be 16 annas. <i>Kalai</i> thriving and flowering. Price of ordinary rice varies from 12 to 21 seers per rupee. Fodder and water for cattle enough.
PATNA DIVISION.	31	Sonthal Parganas .. 18, '93 Nil	Weather—seasonable with bright sunshine. State and prospects of standing crops continue good. Oilseeds doing well. Fodder and water ample.
		Deoghur ... Nil	
		Godda ... Nil	
		Jamtara ... Nil	
		Pakur ... Nil	
		Rajmahal ... Nil	
	32	Patna .. 18, '93 Nil	Weather—seasonable. Paddy being harvested. <i>Rabi</i> crops being sown, and those sown earlier germinating well. Tobacco and <i>rahur</i> doing well. About 8 annas of the poppy sowings completed; prospects favourable. Prices of common rice:—
		Bihar ... Nil	
		Dinapore ... Nil	
		Barh ... Nil	
	33	Gaya .. 18, '93 Nil	Weather—fair and growing cooler at night. Prospects of paddy good. Harvesting of <i>kartika</i> paddy commenced. Sowings of <i>rabi</i> and poppy going on. Prices stationary. Fodder and water for cattle ample.
		Aurangabad ... Nil	
		Nawada ... Nil	
		Jahauabad ... Nil	
	34	Shahabad .. 18, '93 Nil	Prospects of paddy crop favourable. Sugarcane poor. About half the poppy sowings completed, and the slight rain that fell last week was beneficial.
		Buxar ... 0.02 Nil	
		Bhabhua ... Nil	
		Sasaram ... Nil	
	35	Darbhangha .. 18, '93 Nil	Weather—getting cool. Rice crop being harvested in places. <i>Rabi</i> sowings rapidly progressing. Poppy cultivation going on, but unusually late owing to recent rain. Fodder for cattle sufficient. Prices remain stationary.
	36	Muzaffarpur .. 18, '93 Nil	Weather—fair and cold. Prospects of rice crop unaltered. <i>Rabi</i> sowings still continue, and those already sown have germinated and are promising well. Tobacco in good condition. Opium sowing retarded. Fodder and water sufficient. A few cases of cattle-disease reported from Bela and Bairagnia outposts in Sitamarhi subdivision.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
BIHAR—concl'd.			
PATNA DIVISION—concl'd.	37 Saran Nov. 18, '93	Nil	Weather—seasonable. State and prospects of crops good. <i>Rabi</i> sowings still going on; early sowings germinating well. Poppy prospects good; late rain beneficial; germination excellent. Water and fodder plentiful. Prices of common rice:—  Chapra                   ...                   ...                   ...                   Srs. c. Siwan                   ...                   ...                   ...                   15 0 Gopalganj               ...                   ...                   ...                   19 0 } per rupee. 

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 21st November, 1893.

M. FINUCANE,  
Offg. Secy. to the Govt. of Bengal.

## PRICES-CURRENT (retail) of Food-grains, Firewood, and Salt in the

Number.		DISTRICTS.	QUANTITIES PER RUPEE IN																									
			WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU. (Sorghum Vulgare.)													
			Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.								
BENGAL.																												
BERDWAN DIVISION.	1	Bardwan	13 4	12 4	11 8	..	..	..	9 12	10 0	9 0	12 12	13 4	11 4	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	2	Bankura	15 4	14 8	12 0	..	..	..	9 6	9 6	10 0	17 8	13 14	11 4	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	3	Birbhum	10 8	12 0	10 4	..	..	..	10 8	11 0	10 4	13 8	13 8	13 0	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	4	Midnapore	11 0	11 0	11 8	..	..	..	10 0	10 0	8 12	15 10	15 10	10 0	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	5	Hooghly	12 0	13 0	12 0	12 0	13 0	13 0	9 0	8 0	8 0	10 8	10 0	9 8	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	6	Howrah	..	..	..	..	..	..	..	9 8	9 1	8 14	11 8	11 8	11 13	..	..	..	..	..	..	..	..	..	..	..	..	..
PRESIDENCY DIVISION.	7	Calcutta	12 9	12 1	11 0	16 3	16 7	15 1	7 4	7 2	8 0	9 12	9 8	10 8	18 4	18 2	15 5	..	..	..	..	..	..	..	..	..	..	..
	8	24-Parganas	13 4	13 4	11 4	16 6	16 0	16 0	7 0	7 0	8 0	11 8	11 8	11 4	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	9	Nadia	15 3½	14 3½	11 13½	..	..	..	7 9	8 0	9 0	12 1	11 11	11 2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	10	Khulna	..	..	..	..	..	..	8 0	8 0	9 8	10 0	9 0	10 8	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	11	Jessore	8 0	10 8	10 8	..	..	..	8 0	8 8	9 0	10 0	11 4	12 0	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	12	Murshidabad	14 0	11 0	12 0	..	..	..	10 0	9 8	8 8	13 0	12 0	11 0	..	..	..	..	..	..	..	..	..	..	..	..	..	..
CHITTAGONG DIVISION.	13	Chittagong	11 0	10 0	9 4	..	..	..	8 8	8 8	8 8	11 13	10 12	11 4	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	14	Nonkhali	..	..	..	..	..	..	7 0	7 0	10 0	{ 9 0 8 0 to to 10 1 8 12 }		12 0	..	..	..	..	..	..	..	..	..	..	..	..	..	
	15	Tippera	9 12	9 12	10 0	..	..	..	8 0	7 8	8 0	8 8	8 4	10 6½	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	16	Chittagong Hill Tracts.	..	..	..	..	..	..	..	..	..	8 14	8 0	8 14	..	..	..	..	..	..	..	..	..	..	..	..	..	..
DACC DIVISION.	17	Dacca	13 0	13 0	..	16 0	16 0	..	7 8	8 0	8 0	9 0	9 0	10 0	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	18	Faridpur	14 8	15 0	11 0	..	18 0	..	9 0	8 0	8 0	11 8	12 4	11 0	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	19	Backergunge	..	..	..	..	..	..	8 0	8 0	9 0	8 6	8 6	10 8	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	20	Mymensingh	9 8	9 8	9 8	..	..	..	7 0	7 0	8 0	8 0	8 8	10 0	..	..	..	..	..	..	..	..	..	..	..	..	..	..
RAJSHAH DIVISION.	21	Dinajpur	15 10	15 10	11 4	..	12 0	15 12	9 8	9 8	9 0	13 3	13 3	13 0	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	22	Rajshahi	15 12	15 12	13 8	18 12	21 0	15 12	10 8	8 4	9 0	11 4	11 4	12 0	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	23	Ranepur	13 5	14 0	11 8	..	..	..	8 0	8 8	8 0	10 0	11 0	11 0	..	..	..	..	..	..	..	..	..	..	..	..	..	..

A In the subdivisions the retail prices of salt per rupee are:—Kulma 10 seers, Katwa 10½ seers, and Raniganj 10½ seers.

B At Vishnupur the retail price of salt is 10 seers per rupee.

C At Rampur Hat the retail price of salt is 10½ seers per rupee.

D In the subdivisions the retail prices of salt per rupee are:—Contai 9 seers, Ghatal 10 seers 7 chitaks, Tamluk not reported.

E In the subdivisions the retail prices of salt per rupee are:—Serampore (Bhadraswar) 9½ seers and Jahannabad 10 seers.

F In the marts in the interior of the district the retail prices of salt per rupee are:—Chetia hit 10½ seers, Baduria 11 seers

Barasat 10 seers and Magra hit 10 seers 5 chitaks.

G In the subdivisions the retail prices of salt per rupee are:—Kushtia (Bahadurkhal) 10½ seers, Chuadanga 10 seers, Meherpur

11 seers, and Ranaghat 9 seers.

H In the subdivisions the retail prices of salt per rupee are:—Bagerhat 8 seers and Satkhira 10 seers 10 chitaks.

I In the subdivisions the retail prices of salt per rupee are:—Jhenida 9½ seers, Magura 9½ seers, Narail 9 seers 10 chitaks.



## Head-quarters Station Returns of the Districts of Bengal on the 15th November, 1893.

SEERS OF 80 TOLAHS.										WHOLESALE PRICES PER MAUND OF 40 SEERS.										DISTRICTS.	Number.		
JIRA OR CUMBU. ( <i>nonaetum typhoides</i> .)					MARUA OR RAGI. ( <i>Eleusine Corocana</i> .)					FIREWOOD.					SALT.								
Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.				
Ch. S.	Ch. S.	Ch. S.	Ch. S.	Ch. S.	Ch. S.	Ch. S.	Ch. S.	Ch. S.	Ch. S.	Ch. S.	Ch. S.	Ch. S.	Ch. S.	Ch. S.	Ch. S.	Ch. S.	Ch. S.	Ch. S.	Ch. S.	BENGAL.			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	BURDWAN DIVISION.		
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	PRESDENCY DIVISION.		
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	CHITTAGONG DIVISION.		
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
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...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
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...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	DACC DIVISION.		
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	RAJSHAH DIVISION.		
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			

t per rupee are :—Kandi 10 seers, Jaugipur not reported,

9 seers per rupee.

A seers per rupee.

It per rupee are :—Brahmanbaria 7 seers and Chandpur 8 seers.

the retail prices of salt per rupee are :—Madanganj not reported, Manikganj 9 seers 13 chitaks

irhat 10 seers 10 chitaks.

ions the retail price of salt is 9 seers per rupee.

t per rupee are :—Pirojpur 9 seers, Patnakhali 9 seers, and Bhola 8 seers.

per rupee are :—Jamalpur 9 seers chitaks, Kishorganj 8 seers, Netrokona 8 seers, and

the retail price of salt is 9 seers per rupee.

per rupee are :—Gumbanda 10 seers, Kurigan 8 seers and Nilphamari 10 seers.

## PRICES-CURRENT (retail) of Food-grains, Firewood, and Salt in the Head-quarters

Number.		DISTRICTS.	QUANTITIES PER RUPEE IN														
			WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU (Sorghum Vulgare.)		
			Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
BENGAL—continued.																	
RAJSHAH DIVISION— <i>contd.</i>	23	Bogra	13 8	12 0	12 0	...	...	...	7 8	8 4	7 8	12 0	11 4	10 8	...	...	...
	24	Pabna	16 14	16 8	13 8	21 0	21 0	...	6 0	6 0	6 12	12 0	12 0	12 12	...	...	...
	25	Darjeeling	8 0	8 0	7 0	9 0	9 0	8 0	5 8	5 0	5 0	11 8	11 0	10 0	...	...	...
	26	Jalpaiguri	13 0	13 0	11 0	13 0	13 0	13 0	8 0	7 8	6 0	10 0	10 0	10 0	...	...	...
BIHAR.																	
BHAGALPUR DIVISION.	27	Monghyr	{ 15 3 to 17 13 }	{ 15 12 to 17 11 }	{ 12 0 to 13 0 }	{ 18 11 to 19 15 }	{ 18 14 to 19 15 }	{ 14 0 to 15 0 }	10 8	10 8	{ 8 8 to 9 0 }	14 11	15 12	11 8	{ 15 12 to 16 13 }	16 13	...
	28	Bhagalpur	15 2	15 2	13 14	20 3	20 0	12 10	10 12	11 1	10 1	15 2	15 8	12 10	...	...	...
	29	Purnea (Kasba)	16 0	16 0	12 0	...	...	...	10 0	10 0	8 0	16 0	18 0	14 0	...	...	...
	30	Malda (English Bazar).	16 0	16 0	13 0	...	...	...	...	...	9 0	14 0	14 0	14 0	...	...	...
	31	Sonthal Parganas.	13 8	13 8	10 8	...	...	...	11 0	11 0	9 8	14 8	14 4	14 8	...	...	...
PATNA DIVISION.	32	Patna	{ 17 0 to 16 0 }	{ 17 0 to 16 0 }	{ 15 0 to 11 0 }	24 0	22 0	19 0	11 0	11 0	10 8	19 0	18 0	14 8	...	...	28 0
	33	Gaya	15 0	14 8	12 8	19 0	19 0	14 0	9 8	9 8	9 0	14 4	14 8	11 0	17 8	18 4	...
	34	Shahabad	...	13 0	13 0	...	...	16 0	...	9 0	8 0	...	16 0	11 0	...	...	...
	35	Darbhanga	14 0	15 8	12 11	13 0	18 10	17 10	13 0	12 0	11 0	15 0	16 8	15 14	...	...	...
	36	Muzaffarpur	13 0	15 8	12 0	20 0	20 0	18 0	8 0	8 0	8 0	12 8	14 1	16 0	...	...	1 8
	37	Saran	14 8	15 0	13 10	19 0	21 0	16 0	11 12	11 8	9 0	15 0	14 8	13 4	...	...	11 8
	38	Champaran	12 12	12 8	11 8	22 2	22 0	14 8	0	8 4	9 0	16 12	17 8	15 8	...	...	...
ORISSA.																	
ORISSA DIVISION.	39	Cuttack	11 13	11 13	10 8	...	...	...	10 8	10 8	9 13	13 13	13 2	11 13	...	...	...
	40	Puri	9 3	10 8	...	...	...	...	8 0	8 0	7 1	14 7	13 0 Old 16 0 New. 18 0	13 2	...	...	...
	41	Balasore	14 0	13 0	11 0	10 0	10 0	10 0	11 0	10 0	10 0	18 4	13 0 Old 16 0 New. 18 0	14 0	...	...	...
CHOTA NAGPUR.																	
CHOTA NAGPUR DIVISION.	42	Hazaribagh	{ 12 12 to 14 0 }	{ 12 8 to 12 0 }	11 8	16 0	16 0	11 0	8 0	8 0	8 0	{ 13 4 to 17 0 }	{ 10 8 to 15 8 }	13 0	...	...	...
	43	Lohardaga (Ranchi)	11 0	12 0	11 0	16 0	16 0	...	{ 13 0 Old 16 0 New	12 0	10 0	{ 17 0 to 18 0 }	{ 14 0 to 16 0 }	13 0	...	...	...
	44	Palamau	13 8	14 1	10 11	25 9	23 10	12 6	14 10	12 6	10 11	18 9	15 3	12 6	...	...	...
	45	Singbhum	12 0	12 0	12 0	...	...	...	10 0	10 0	11 0	16 0	16 0	14 0	...	...	...
46	Manbhum	14 0	14 8	11 12	...	...	...	9 8	{ 9 8 to 10 0 }	8 8	{ 16 0 to 18 0 }	{ 16 0 to 18 0 }	13 0	...	...	...	

\* Present return not received.

T At Siraganj the retail price of salt is 10½ seers per rupee.

U At Siliyuri the retail price of salt is 9 seers per rupee.

V In the Alipor subdivision the retail price of salt is 8 seers per rupee.

W In the subdivisions the retail prices of salt per rupee are:—Bogusari 10 seers and Jamni 10 seers.

X In the subdivisions the retail prices of salt per rupee are:—Ranka 9 seers, Moolhipura 8½ seers, and Supaul 9 seers.

Y In the subdivisions the retail prices of salt per rupee are:—Kishanganj 10 seers and Arriam 9 seers.

Z In the subdivisions the retail prices of salt per rupee are:—Doochur 10½ seers, Godda 9 seers, Jantara 9 seers, Pakur 10½ seers, and Rajmahal 9 seers.

a In the Barh subdivision the retail price of salt is 10½ seers per rupee. \*

## CALCUTTA

The 21st Nov mber, 1893.



## PRICES-CURRENT (wholesale) of Food-grains, Firewood, and Salt

Number.	MARTS.	WHEAT.			BARLEY.			RICE, BEST SORT.			RICE COMMON.		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
		R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
1	Calcutta ...	3 2 0	3 3 9	3 6 0	2 7 6	2 6 6	2 7 0	5 8 0	5 9 3	4 12 0	4 0 6	4 2 3	3 8 0
2	Sirajganj ...	2 13 0	2 12 0	3 8 0	...	...	...	5 8 0	5 12 0	6 0 0	4 0 0	4 8 0	4 8 0
3	Dacca ...	3 2 0	3 1 0	...	2 8 0	2 8 0	...	5 0 0	4 12 0	5 0 0	4 4 0	4 4 0	4 0 0
4	Narayanganj*	...	...	...	...	...	...	...	5 0 0	4 0 0	...	4 0 0	3 12 0
5	Chittagong	3 8 0	4 0 0	4 0 0	...	...	...	4 8 0	4 8 0	4 8 0	3 5 8	3 10 8	3 8 0
6	Patna ...	2 6 0	Red. 2 6 0	2 10 6	1 10 6	1 13 0	2 1 6	3 10 0	3 10 0	3 12 6	2 1 6	2 3 6	2 12 6
		2 8 0	White. 2 8 0	2 13 6									
7	Balasore ...	2 14 0	3 1 0	3 8 0	4 0 0	4 0 0	3 12 0	3 12 0	4 0 0	3 12 0	2 3 0	2 3 0	2 12 0
8	Puri ...	4 7 0	3 12 0	...	...	...	...	5 0 0	5 0 0	5 10 0	1 0	3 0 0	3 0 0
9	Cuttack ...	3 6 0	3 6 0	3 12 0	...	...	...	3 10 0	3 10 0	4 0 0	2 14 0	3 0 0	3 6 0

\* Present return not received

CALCUTTA,  
The 21st November, 1893.

gal on the 15th November, 1893.

## PRICES PER MAUND

JOWAR OR CHOLU. ( <i>Sorghum Vulgare</i> .)			BAJRA OR CUMBU. ( <i>Pennisetum typhodesum</i> .)		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
2 2 0	2 2 6	2 5 9	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...

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ARHAR OR THUR, CADJAN PEA. ( <i>Cajanus indicus</i> .)			FIREWOOD.			SALT.			MARTS.
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
P. L. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	
0 2 3 0	2 4 0	2 6 0	0 7 0	0 7 0	0 6 0	3 10 6	3 9 3	3 5 6	Calcutta.
...	...	...	0 6 6	0 6 6	0 6 6	3 12 0	3 12 0	3 8 0	Sirajganj.
2 10 0	2 10 0	...	0 5 0	0 5 0	0 5 0	4 8 0	4 5 0	3 10 0	Dacca.
...	2 12 0	3 12 0	...	0 6 0	0 8 0	...	4 4 0	3 8 0	Narayanganj.
...	...	...	0 8 0	0 8 0	0 5 0	4 0 0	4 0 0	3 11 0	Chittagong.
3 1 7 9	1 7 9	2 1 6	0 5 0	0 5 0	0 5 0	3 10 0	3 10 0	3 8 0	Patna.
4 0 0	4 0 0	3 10 0	...	...	...	4 0 0	3 12 0	3 10 0	Balasore.
2 5 0	2 5 0	...	0 8 0	0 8 0	...	3 8 0	3 4 0	3 6 0	Puri.
2 0 0	2 0 0	2 10 0	0 8 0	0 8 0	0 8 0	3 8 0	3 8 0	3 12 0	Cuttack.

ished for general information.

M. FINUCANE,

Offg. Secretary to the Govt. of Bengal.

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.											
			AIR PRESSURE.			WIND.		TEMPERATURE.						
			Mean barometric height, 8 A. M., reduced to 32°.	Mean reduced to sea-level and constant gravity, lat. 45°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.
ORISSA.	Puri	Puri	30.043	30.098	—	NEly	123	86.2	15th Nov.	66.6	18th Nov.	83.0	70.1	76.6
		Gopalpore	30.044	30.006	+0.044	NNW	226	83.7	16th "	66.1	18th "	80.6	60.7	75.2
		False Point	30.052	30.015	+0.055	N	147	83.4	14th "	61.5	18th "	81.8	67.3	74.5
	Cuttack	Cuttack	29.986	30.011	+0.052	Calm	41	85.3	16, 17 "	63.3	18th "	84.0	68.7	76.4
Balasore	Balasore	30.020	30.014	+0.053	N	64	83.4	12, 16 "	59.6	17, 18 "	81.8	64.9	73.4	
Midnapore	Midnapore	29.039	30.039	+0.060	Nly	46	84.3	12 & 13 "	60.2	16th "	82.6	64.3	73.5	
24 Pargannas	Calcutta	30.054	30.021	+0.056	NEly	41	82.2	13th "	63.2	16, 17 "	80.4	65.5	73.0	
	Saugor Island	30.049	30.018	+0.061	NEly	185	82.2	13 & 13 "	63.9	17th "	80.7	67.5	74.1	
SOUTH-WEST BENGAL.	Howrah	Howrah	30.028	30.023	+0.060	WNW & NNW.	64	83.3	12th "	66.4	16th "	82.2	63.9	73.1
	Nadia	Krishnagar	30.024	30.015	+0.056	NNW	42	84.1	12 & 13 "	63.5	18th "	83.0	66.7	74.4
	Khulna	Jessore	30.024	30.015	+0.056	NNW	42	84.1	12 & 13 "	63.5	18th "	83.0	66.7	74.4
	Burdwan	Burdwan	29.769	30.053	+0.072	NW	33	83.1	12 & 13 "	61.7	16th "	82.0	65.2	73.6
NORTH BENGAL.	Bankura	Bankura	29.776	30.033	+0.069	Calm	49	84.1	15th "	61.0	17th "	82.6	64.4	73.5
	Birbhum	Berhampore	30.006	30.023	+0.046	NWly	35	82.6	12th "	63.2	16th "	80.9	64.9	73.0
	Murshidabad	Sirajganj	30.009	30.006	+0.048	Calm	16	83.7	12th "	60.3	18th "	83.9	62.4	72.7
	Pabna	Bogra	29.993	30.014	?	NE	35	83.2	12, 15 & 16, "	60.2	14, 17 & 18, "	82.5	61.0	71.8
EAST BENGAL.	Rajshahi	Rampur Baisa	29.989	30.010	+0.056	NNE	100	82.1	15th "	60.7	13th "	81.1	62.5	71.8
	Malda	Malda	29.996	30.039	—	NW	68	82.6	17th "	59.0	13th "	82.0	60.7	71.3
	Dinajpur	Dinajpur	29.944	30.029	+0.068	NW & NE	29	83.1	13 & 14 "	60.3	18th "	82.5	62.1	72.3
	Rangpur	Rangpur	29.945	30.026	+0.054	NE	26	83.3	12th "	59.1	18th "	82.5	61.0	71.8
CHOTA NAGPUR.	Jalpaiguri	Jalpaiguri	29.803	30.051	?	NNE	29	82.4	12, 14, & 15, "	59.6	12 & 18 "	82.0	61.1	71.8
	Kuch Bihar	Darjeeling	23.094	—	+0.035	NEly	59	55.1	12 & 14 "	40.7	16th "	54.3	41.6	47.9
	Darjeeling	Gnatong	18.072	—	—	ESW	54	42.9	13th "	21.7	17th "	59.6	25.4	32.5
	Chittagong	Chittagong	29.958	29.964	+0.054	NEly	56	86.2	13th "	65.1	16th "	83.4	67.1	75.3
SOUTH BENGAL.	Chittagong Hill Tracts	Dumagiri	30.027	29.986	+0.062	Calm	40	84.3	12 & 13 Nov.	64.9	16th "	82.9	67.2	75.0
	Nackergunge	Barisal	29.987	29.978	+0.050	NEly	62	83.5	12th "	65.9	13 & 14 "	81.0	67.8	74.0
	Noakhali	Noakhali	30.010	30.014	+0.068	Calm	19	82.5	12th "	64.0	14, 17 "	81.4	65.9	73.7
	Faridpur	Dacca	30.025	29.903	+0.047	NWly	62	84.6	12 & 13 "	63.8	18th "	83.9	65.7	74.8
NORTH BENGAL.	Tippera	Comilla	30.006	29.991	+0.054	Calm	25	85.4	12th "	62.9	15th "	84.0	64.5	74.2
	Mymensingh	Mymensingh	29.989	30.001	+0.051	NEly	31	82.7	12 & 13 "	60.6	17th "	82.1	63.0	72.5
	Purnea	Purnea	29.952	30.036	+0.058	Calm	3	82.2	12th "	59.3	13, 14 & 18, "	81.1	60.6	70.9
	Bhagalpur	Bhagalpur	29.914	30.033	+0.053	Calm	6	82.8	12th "	59.0	13th "	81.7	57.7	69.7
SOUTH BENGAL.	Darbhanga	Darbhanga	29.907	30.034	+0.057	WSW	40	80.0	12 to 16, "	59.7	18th "	80.7	61.4	71.0
	Muzaffarpur	Muzaffarpur	29.908	30.046	—	Calm & WSW.	35	80.7	12th "	57.3	16 to 18, "	79.6	59.0	69.3
	Champaran	Motihari	29.838	30.039	+0.050	Calm & SE.	72	81.2	12 to 15, "	53.0	17th "	80.6	55.8	68.2
	Patna	Chapra	29.914	30.056	?	SWly	50	81.3	12th "	60.6	16, 17 "	80.4	58.9	69.7
CHOTA NAGPUR.	Shanabad	Dehri	29.713	30.072	+0.070	SW	96	81.8	13th "	55.0	16th "	80.8	57.6	68.2
	Gaya	Buxar	29.849	30.054	+0.048	SWly	51	82.1	12th "	54.0	17th "	81.5	57.8	69.6
	Patna	Arrah	29.894	30.044	+0.063	NWly	21	82.8	12, 16 "	54.8	16th "	82.0	58.5	69.3
	Monghyr	Gaya	29.705	30.050	+0.050	SEly	124	83.0	12 & 13 "	56.8	17th "	82.0	60.0	71.6
CHOTA NAGPUR.	Bankipore	Bankipore	29.903	30.046	+0.042	SW	60	81.0	12th "	59.8	18th "	79.9*	58.5*	69.4*
	Sonthal Pargannas	Naya Dumka	29.975	30.042	+0.065	NWly	53	83.1	12th "	57.5	16th "	81.0	59.6	70.3
	Hazaribagh	Hazaribagh	29.936	30.047	+0.044	Wly & Calm.	116	79.2	12 & 13 "	52.7	17th "	78.1	55.8	66.9
	Lohardaga	Ratuohi	27.911	30.042	+0.050	Calm	100	79.0	13th "	53.0	17th "	76.4	57.3	66.9
CHOTA NAGPUR.	Palamu	Daltonganj	29.938	30.050	—	SW	29	81.4	12 to 15, "	51.0	16, 17 "	80.3	56.3	68.3
	Singbhum	Chaibasa	29.900	30.036	+0.066	Calm	2	82.7	18th "	57.0	18th "	81.5	61.6	71.5

\* Means for six days.

**Explanation.—Summary.**—The normal means of air pressure and temperature are the arithmetical average or means the reading during the same period. The humidity of the atmosphere is expressed as percentage, saturated air being presented by 100. A clear sky is denoted by 0 and an overcast sky by 101. The rainfall the normal mean are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional station district, i.e. from total rainfall at the subdivisional stations in the district sending in returns divided by the number of stations. A rainy day is one of

for the week ending Saturday, the 18th of November 1893.

DISTRICT OBSERVATIONS.															DISTRICT.
Variation from normal mean.	Mean 6 A.M. temperature.	Average humidity at 8 A.M.	Average cloud amount at 8 A.M.	Rainfall of week at observing station.	OF WEEK.				RAINFALL.						
					Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Since 1st of month.			Since 18th October 1893.			
									Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.	
—	73.6	78	4.4	Nil	0.02	0.22	0.00	0.33	0.42	1.88	-1.46	0.83	0.09	+0.74	Puri.
-0.2	73.4	88	2.0	1.70											
+0.9	73.6	84	4.4	Nil											
+1.2	74.1	72	4.7	Nil	0.02	0.07	0.00	0.31	0.08	0.73	-0.70	4.20	3.78	+0.42	Outlook.
+1.0	80.7	89	2.3	Nil	Nil	0.06	0.00	0.28	0.04	0.80	-0.76	4.21	2.88	+1.33	Malasore.
+1.2	70.2	74	2.7	Nil	Nil	Nil	0.00	0.00	0.03	0.31	-0.28	3.32	3.30	+0.02	Midnapore.
+0.1	71.1	76	2.6	Nil	Nil	0.02	0.00	0.23	0.02	0.44	-0.42	2.44	3.20	-0.76	24-Parganas.
-0.2	72.0	86	5.0	Nil											
					Nil	Nil	0.00	0.00	0.02	0.33	-0.31	2.38	2.09	+0.29	Howrah.
					Nil	Nil	0.00	0.00	0.03	0.21	-0.18	2.85	2.26	+0.59	Hooghly.
+0.3	70.6	75	2.4	Nil	Nil	Nil	0.00	0.00	0.23	0.34	-0.00	1.47	2.08	-0.61	Nadia.
					Nil	0.03	0.00	0.20	0.04	0.45	-0.41	2.19	3.03	-0.84	Khulna.
+0.8	71.4	82	2.6	Nil	Nil	Nil	0.00	0.00	0.12	0.31	-0.19	0.95	2.51	-1.56	Jessore.
+0.4	70.1	72	2.3	Nil	Nil	Nil	0.00	0.00	0.06	0.27	-0.21	2.05	2.07	-0.02	Burdwan.
+0.4	68.0	76	0.6	Nil											
+0.4	68.5	73	2.7	Nil	Nil	0.14	0.00	0.25	0.08	0.39	-0.33	2.29	2.11	+0.18	Bankura.
-0.1	67.8	84	2.7	Nil	Nil	Nil	0.00	0.00	Nil	0.18	-0.18	1.76	2.00	-0.24	Birbhum.
+0.5	69.4	87	1.1	Nil	Nil	Nil	0.00	0.00	0.20	0.29	-0.09	3.17	2.61	+0.56	Murshidabad.
-0.3	69.3	82	0.7	Nil	Nil	Nil	0.00	0.00	Nil	0.31	-0.31	4.01	1.98	+2.03	Fabna.
+1.6	70.3	77	1.3	Nil	Nil	0.05	0.00	0.12	Nil	0.24	-0.23	2.73	1.76	+0.97	Bogra.
—	68.9	78	0.0	Nil	Nil	Nil	0.00	0.00	Nil	0.21	-0.21	3.13	1.48	+1.65	Rajshahi.
+0.9	69.6	83	0.0	Nil	Nil	0.04	0.00	0.12	Nil	0.09	-0.09	2.81	1.38	+1.43	Malda.
+0.9	68.2	90	0.1	Nil	Nil	Nil	0.00	0.00	Nil	0.09	-0.09	1.79	2.08	-0.29	Dinajpur.
+0.7	68.7	80	2.9	Nil	Nil	Nil	0.00	0.00	Nil	0.10	-0.10	2.70	2.99	-0.29	Rangpur.
					Nil	0.03	0.00	0.13	Nil	0.09	-0.09	3.65	1.82	+1.83	Jalpaiguri.
+0.1	47.3	83	3.4	Nil	0.30	0.19	0.75	0.42	0.35	0.27	+0.8	5.04	2.65	+2.37	Kuch Bihar.
—	32.6	88	2.4	0.33											
+0.7	72.1	90	2.7	Nil	Nil	0.10	0.00	0.25	Nil	1.34	-1.34	5.76	4.28	+1.48	Darjeeling.
															Gnatong.
					Nil	Nil	0.00	0.00	Nil	1.70	-1.70	5.31	3.63	+1.68	Chittagong Hill
+1.7	73.1	84	1.9	Nil	Nil	0.03	0.00	0.14	Nil	1.21	-1.21	5.28	2.80	+2.63	Trails.
+1.0	72.2	91	1.7	Nil	Nil	0.01	0.00	0.22	0.02	2.04	-2.02	3.71	2.80	+2.63	Backergunge.
+0.7	70.5	87	1.7	Nil	Nil	0.01	0.00	0.25	0.14	0.34	-0.20	1.67	2.29	-0.62	Nonkhali.
-0.1	70.9	83	3.0	Nil	Nil	0.17	0.00	0.35	0.06	0.63	-0.57	3.00	2.67	+0.33	Faridpur.
+0.3	71.1	88	2.7	Nil	Nil	0.03	0.00	0.31	Nil	0.59	0.59	3.58	2.50	+0.99	Dacca.
?	68.9	90	2.0	Nil	Nil	0.07	0.00	0.24	0.18	0.31	-0.15	3.72	2.73	+0.99	Tippera.
+0.3	64.8	89	0.3	Nil	Nil	Nil	0.00	0.00	0.01	0.07	-0.06	2.67	1.55	+1.12	Mymensingh.
-0.2	67.8	73	0.7	Nil	Nil	Nil	0.00	0.00	0.02	0.08	-0.06	2.51	1.37	+1.14	Purnea.
-0.4	65.9	82	0.6	Nil	Nil	Nil	0.00	0.00	0.06	0.04	+0.02	5.95	0.96	+4.99	Bhagalpur.
—	65.5	89	1.7	Nil	Nil	Nil	0.00	0.00	0.07	0.06	+0.01	7.71	1.11	+6.60	Barbhang.
0	65.1	82	0.8	Nil	Nil	Nil	0.00	0.00	0.05	0.02	+0.03	8.60	0.40	+8.20	Muzaffarpur.
-0.7	67.8	77	1.4	Nil	Nil	0.01	0.00	0.08	0.29	0.04	+0.25	5.84	0.85	+4.99	Champaran.
-0.9	68.2	85	0.3	Nil											Saran.
-0.9	65.0	76	1.1	Nil	Nil	0.01	0.00	0.07	0.38	0.12	+0.26	5.78	1.17	+4.61	Shahabad.
-0.3	64.7	79	0.4	Nil											
+0.6	66.0	76	3.1	Nil	Nil	Nil	0.00	0.00	0.04	0.15	-0.11	2.50	0.91	+1.59	Gaya.
?	66.9	72	1.0	Nil	Nil	Nil	0.00	0.00	0.06	0.10	-0.04	4.38	1.28	+3.10	Chittagong.
					Nil	Nil	0.00	0.00	Nil	0.10	-0.10	1.71	1.43	+0.28	Patna.
+0.3	68.0	70	0.1	Nil	Nil	Nil	0.00	0.00	Nil	0.13	-0.13	2.43	1.05	+0.78	Monkhyr.
-0.3	65.1	64	1.4	Nil	Nil	0.06	0.00	0.15	0.01	0.27	-0.26	3.67	1.34	+2.33	Souhal Pargana.
+0.8	64.7	64	1.7	Nil	Nil	0.03	0.00	0.09	0.14	0.19	-0.05	3.36	1.40	+1.96	Hazaribagh.
—	68.0	70	0.5	Nil	Nil	Nil	0.00	0.00	0.25	0.35	-0.10	2.34	1.26	+1.08	Lohardaga.
+0.2	60.9	65	3.0	Nil	Nil	Nil	0.00	0.00	0.11	0.25	-0.14	0.87	2.07	-1.20	Palamau.
					Nil	Nil	0.00	0.00	Nil	0.16	-0.15	1.34	1.45	+0.49	Singbhum.
															Manbhum.

for the last ten years. The variations are *negative* when the mean for the week is less than the corresponding normal mean, and *positive* when greater. The numbers denoting cloud amount represents the part of the sky covered the whole sky being denoted by 10. Under the head District observations of for the period in question during the past ten years. The means of the district are the numerical average of the rainfall returned received in the which at least a tenth of an inch fall.









SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, FOR THE WEEK ENDING 8 A.M., SATURDAY,  
THE 18TH OF NOVEMBER 1893.

DURING the previous week conditions had been disturbed in Bengal, due primarily to a small storm which had occurred off the South Madras coast. After the storm had broken up a wave of humid winds had advanced northwards along the west coast of the Bay, and had spread over Bengal, giving heavily-clouded skies and light rain. This advance of humid winds was, however, only temporary, and at the close of the week a dry northerly and north-westerly wind current was driving back the moist winds, and weather was again rapidly becoming of ordinary north-east monsoon condition. On the 12th, or the first day of the week under review, light northerly winds were blowing over the whole province, pressure was increasing slowly, and had become in excess of the normal by amounts usually ranging from about 0.06 inch to 0.08 inch. Temperature and humidity, on the other hand, were falling in almost all districts, the decrease in humidity being large at the western stations. The sky was lightly clouded in all districts except Orissa, where it was still heavily clouded, and rainfall had entirely ceased over the province except in Orissa and in the Darjeeling Hills, where a few local falls were reported, the heaviest being 0.23 inch at Gaarong. On the 13th again pressure was rising slowly, while temperature and humidity were falling. Winds on the whole were rather less steady than on the previous day, and the sky had become cloudless except over parts of South Bengal and Orissa. One or two local showers were also reported in Orissa and in the hills. On the 14th the increase of pressure had ceased, and a slow to moderate fall was reported. Winds had become variable in direction in Bihar, but elsewhere they were northerly, while a decided increase had occurred in humidity and cloud proportion, and a smaller increase in the temperature. Rainfall, however, had to a great extent ceased. On the 15th pressure was increasing, and had become above the normal by about 0.04 inch to 0.07 inch, while the mean temperature was usually in slight excess. Winds generally varied from north-westerly to north-easterly, and rainfall was absent except for some local showers in the hills. On the 16th these conditions continued practically unaltered, except that the mean temperature was becoming slightly below the normal over the west of the province. On the 17th a fall of pressure equaling about 0.05 inch had occurred, but the mean temperature had again become in slight excess over the greater part of the province. On the 18th pressure continued to fall by about 0.08 inch to 0.05 inch, and the distribution of pressure had become almost normal, the variations from normal pressure being generally less than 0.02 inch, though they were still in slight excess. The mean temperature also continued in slight excess over the greater part of the province, though at the extreme western stations very small defects were registered. For the second half of the week, except for two or three local showers in the hills, the whole province continued rainless, and light northerly winds with practically cloudless skies prevailed generally over the province.

*Pressure.*—For the greater part of the week pressure, as previously shown, was above the normal. Hence the mean for the week has been in decided excess, the amount of excess usually varying from 0.05 inch to 0.07 inch.

*Temperature.*—The mean temperature for the week in Bihar and Chota Nagpur has been almost normal, but in the remaining divisions an excess of about half a degree has been registered. For the whole province the mean for the week has been 0.3° in excess.

The actual temperatures registered during the week and their variations from the usual temperature for the present season are most clearly seen in the table below, where the average maximum, minimum and mean temperatures for the week at nine typical stations in different districts of the province are compared with the normal values for the same period. It will be seen that in eight out of the nine stations the day temperatures have been rather lower than usual, while in seven out of nine the night or minimum temperatures have been in excess:—

Table showing the excess or defect of the actual mean temperature from the normal for the week ending 18th November 1893.

	Normal mean maximum temperature for the week ending 18th November.	Actual mean maximum temperature for the week ending 18th November 1893.	Variation of actual mean from the normal.	Normal mean minimum temperature for the week ending 18th November.	Actual mean minimum temperature for the week ending 18th November 1893.	Variation of actual mean from the normal.	Normal mean daily temperature for the week ending 18th November.	Actual mean daily temperature for the week ending 18th November 1893.	Variation of actual mean from the normal.
Cuttack	85.6	84.0	-1.6	61.7	68.7	+4.0	78.2	76.4	-1.2
Calcutta	81.7	80.4	-1.3	64.1	65.5	+1.4	72.9	73.0	+0.1
Dacca	81.4	83.9	+2.5	64.4	65.7	+0.3	74.9	74.8	-0.1
Burdwan	83.2	82.0	-1.2	64.2	65.2	+2.0	73.2	73.6	+0.4
Patna	82.4	79.0	-3.5	59.0	58.8	-0.2	70.7	69.4	-1.3
Gaya	83.4	82.9	-0.5	58.3	60.0	+1.7	70.9	71.5	+0.6
Parana	82.6	81.1	-1.5	58.6	60.6	+2.0	70.6	70.9	+0.3
Hazaribagh	77.4	78.1	+0.7	57.2	55.8	-1.4	67.3	66.9	-0.4
Darjeeling	64.4	64.3	-0.1	41.1	41.6	+0.5	47.8	47.0	-0.1

*Rainfall.*—Except for a few unimportant showers at some stations in Orissa and in the Darjeeling Hills, the whole province has been rainless throughout the week.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 18th of November 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.										RAINFALL.							
	Highest observed during week.	Lowest observed during week.	Averages for week.				Average mean of week above or below normal mean of week.	Of week.		Rainy days.		Since 1st of month.		Since 16th Oct. 1893.				
			Of highest of each day.	Of lowest of each day.	Of mean of each day.	Average.		Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.		
Orissa	86.2	59.0	82.2	68.1	75.2	+0.7	0.01	0.10	-0.09	0.00	0.20	-0.20	0.15	1.07	5.43	3.74		
South-West Bengal	84.5	57.5	81.7	64.7	73.5	+0.3	Nil	0.02	-0.02	0.00	0.20	-0.20	0.06	0.32	2.04	2.30		
North Bengal	83.7	59.0	82.2	64.5	71.9	+0.7	Nil	0.02	-0.02	0.00	0.11	-0.11	0.02	0.16	2.92	1.84		
East Bengal	86.2	60.0	82.8	65.9	71.3	+0.7	Nil	0.06	-0.06	0.00	0.25	-0.25	0.05	0.84	4.13	2.33		
North Bihar	82.8	53.9	80.7	58.9	69.8	-0.2	Nil	Nil	Nil	0.00	0.00	0	0.13	0.00	5.91	1.06		
South Bihar	83.9	54.8	81.1	58.1	69.9	-0.5	Nil	Nil	Nil	0.00	0.00	0	0.12	0.12	3.45	1.21		
Chota Nagpur	82.4	51.0	78.7	58.9	68.4	+0.2	Nil	0.03	-0.03	0.00	0.13	-0.13	0.07	0.23	3.21	1.26		

\* Rangoon and Daitongang not included.

METEOROLOGICAL OFFICE, BENGAL,  
21st November 1893.

A. PEDLER,  
Meteorological Reporter to the Govt. of Bengal

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 12th to 18th November 1893

MONTH.	Date.	Pressure at 10 A.M. Corrected and reduced to 32 F.	TEMPERATURE.						HYGROMETRY.				Rainfall, past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.		
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.	
November	12th	30.071	75.9	83.9	16.0	67.9	79.6	72.6	.708	68.9	70		
"	13th	.080	74.4	80.9	13.0	67.9	79.6	67.6	.516	59.8	51		
"	14th	.067	74.4	79.9	11.0	68.9	75.6	67.6	.570	62.7	61		
"	15th	.081	72.9	81.9	18.0	63.9	78.6	69.6	.904	61.3	61		
"	16th	.096	72.2	81.5	18.6	62.9	79.2	65.6	.450	56.0	46		
"	17th	.053	72.7	82.1	19.5	62.0	77.1	69.6	.621	65.3	67		
"	18th	.010	73.3	81.9	17.2	61.7	77.1	68.6	.586	63.4	63		

The mean 10 A.M. pressure of the seven days ... ..	...	...	Inches. 30.066
The mean temperature of the seven days ... ..	...	...	73.7
The extreme variation of temperature ... ..	...	...	21.0
The maximum temperature ... ..	...	...	83.9
The mean 10 A.M. relative humidity of the seven days ... ..	...	..	% 60
The total fall of rain from 12th to 18th November 1893 ... ..	...	...	Inch. Nil
The daily mean temperatures are the crude means of maximum and minimum temperatures.			

C. LITTLE,  
For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA,  
20th November 1893.

## Results of the Meteorological Observations taken at the Alipore Observatory from 12th to 18th November 1893.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
		°		Inches.	°	°	°	°	°	Inches	°	%			Inches.	
Nov.	12th	135.5	8.3	30.010	74.0	82.2	15.0	67.2	70.2	0.691	68.2	83	ENE, NNE and calm.	53	Nil	Partially cloudy, a.
"	13th	136.5	4.4	30.007	72.9	79.7	12.4	67.3	67.7	.610	64.6	76	NNF, NNW and calm.	51	"	Chiefly cloudy, o, g, a.
"	14th	123.0	0.9	29.981	72.6	78.9	9.2	69.7	67.0	.589	63.6	74	NNW and calm ...	83	"	Day chiefly cloudy, night clear, o, g.
"	15th	133.8	9.3	30.014	71.8	81.1	17.2	63.9	67.6	.623	65.2	81	NNW and calm ...	35	"	Chiefly clear, a.
"	16th	136.5	9.4	30.034	71.0	79.7	16.7	63.0	64.9	.585	60.8	72	N and calm ...	41	"	Clear, a.
"	17th	134.0	9.6	29.986	70.8	79.9	16.8	63.1	66.2	.584	63.3	78	NNW and calm ...	41	"	Clear, a.
"	18th	136.0	9.8	30.051	71.2	80.5	16.3	64.2	66.6	.593	63.8	78	N and calm ...	41	"	Clear, a.

The mean pressure of the seven days	...	...	...	...	Inches.
The average pressure of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	29.998
The total number of hours of bright sunshine	...	...	...	...	Hours.
The maximum possible number of hours of sunshine	...	...	...	...	51.7
					77.1
The mean temperature of the seven days	...	...	...	...	72.0
The average temperature of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	75.3
The extreme variation of temperature	...	...	...	...	19.2
The maximum temperature	...	...	...	...	82.2
					Miles.
The highest velocity of the wind in one hour	...	...	...	...	8
					lbs.
The highest pressure of wind on one square foot	...	...	...	...	?
					%
The mean relative humidity	...	...	...	...	77
The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	72
					Inches.
The total fall of rain from 12th to 18th November 1893	...	...	...	...	Nil
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	0.05
The total fall from 1st January to 18th November 1893	...	...	...	...	85.23
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	65.14

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o, overcast; g, gloomy; a, dew.

## IRRIGATION DEPARTMENT, BENGAL.

*Abstract statement showing Tollage on Canals in Bengal classed as Major Works for the month of September 1893, as compared with that of the corresponding month of the previous year.*

CANALS.	TOLLAGE, 1893-94.			TOLLAGE, 1892-93.		
	During the month.			During the month.		
	Rs.	A.	P.	Rs.	A.	P.
<i>Orissa Circle.</i>						
Taldanda Canal System	2,132	10	11	9,325	13	8
Kendrapara ditto	6,661	0	6	40,790	12	5
High Level, Range I	1,294	2	3	7,756	6	6
Ditto, " II	210	10	9	1,570	1	3
Ditto, " III	151	4	6	1,048	4	0
Jajpur Canal ...	26	4	6	164	1	4
Total Orissa Circle ...	10,476	1	5	60,655	7	2
<i>South-Western Circle.</i>						
Midnapore Canal ...	6,641	6	9	47,518	6	6
Hijili Tidal Canal ...	4,034	8	0	32,660	1	0
Total South-Western Circle...	10,675	14	9	80,178	7	6
<i>Sone Circle.</i>						
Patna Canal System ...	1,183	9	0	11,994	9	6
Arrah ditto ...	1,030	3	9	11,360	1	6
Buxar ditto ...	401	11	9	3,733	11	0
Total Sone Circle ...	2,615	8	6	27,088	6	0
GRAND TOTAL ...	23,767	8	8	1,67,922	4	8

## Government Transport Service.

CANAL.	TOLLAGE, 1893-94.						TOLLAGE, 1892-93.					
	During the month.			To end of the month.			During the month.			To end of the month.		
	Passengers.	Goods.	re- cepts.	Passengers.	Goods.	re- cepts.	Passengers.	Goods.	re- cepts.	Passengers.	Goods.	re- cepts.
<i>Orissa Circle.</i>	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.
High Level ...	1,222	1,028	1,172 0 5	13,493	3,823	13,465 9 1	1,176	622	943 15 4	4,775	3,113	5,330 0 11
Total Orissa Circle ...	1,222	1,028	1,172 0 5	13,493	3,823	13,465 9 1	1,176	622	943 15 4	4,775	3,113	5,330 0 11

## Total Navigation Receipts.

CANALS.	EARNINGS, 1893-94.			EARNINGS, 1892-93.		
	During the month.			During the month.		
	Rs.	A.	P.	Rs.	A.	P.
Orissa Canals ...	11,648	1	10	74,121	0	3
Midnapore Canal ...	6,641	6	9	47,518	6	6
Hijili Tidal Canal ...	4,034	8	0	32,660	1	0
Sone Canals ...	2,615	8	6	27,088	6	0
Total ...	24,939	9	1	1,81,387	13	9

CALCUTTA,  
The 20th November 1893.

G. O. MACONCHY,  
Under-Secy. to the Govt. of Bengal.

## IRRIGATION DEPARTMENT, BENGAL.

*Abstract statement showing Tollage on Canals in Bengal classed as Minor Works and Navigation for the month of September 1893, as compared with that of the corresponding month of the previous year.*

CANALS.	TOLLAGE, 1893-94.		TOLLAGE, 1892-93.	
	During the month.	To end of the month.	During the month.	To end of the month.
	Rs.    A.    P.	Rs.    A.    P.	Rs.    A.    P.	Rs.    A.    P.
Calcutta and Eastern Canals ...	24,774   14   6	1,20,828   13   6	23,131   7   0	1,18,942   0   3
Tolly's Nala ...	6,700   14   6	35,993   3   0	6,966   4   3	36,556   8   3
Total ...	31,475   13   0	1,56,822   0   6	30,097   11   3	1,55,498   8   6
Orissa Coast Canal ...	6,204   11   0	54,245   0   0	3,433   12   9	24,622   11   6
Nadia Rivers ...	26,528   14   0	1,08,030   13   10	28,052   13   0	97,169   12   9
GRAND TOTAL ...	64,209   6   0	3,19,097   14   4	61,584   5   0	2,77,291   0   9

CALCUTTA,  
The 20th November 1893.

G. C. MACONCHY,  
Under-Secy. to the Govt. of Bengal.

## CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 18th November 1893, as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 18TH NOVEMBER 1893.			WEEK ENDING SATURDAY, THE 19TH NOVEMBER 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ...	305	39,727	438	99	22,825	361
Jute ...	300	1,62,250	2,776	532	2,25,500	3,852
Firewood ...	103	68,700	972	143	66,650	1,015
Other articles ...	892	1,99,895	3,136	1,131	2,56,775	3,866
Total ...	1,600	4,65,572	7,322	1,905	5,71,400	9,094

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 11th November 1893, on 1,610½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	*243,496	Rs. A. P. 8,19,185 13 0	Mds. S. 24,79,897 0	Rs. A. P. 6,19,210 2 0	Rs. A. P. 16,215 10 0	Rs. A. P. 9,64,561 9 0	76,657	104,998	181,649
Or per mile of railway ...	.....	198 2 7	.....	384 7 9	10 1 1	592 11 6	.....	.....	.....
For previous 18½ weeks of half-year ...	5,160,802	54,75,874 6 0	4,33,67,767 30	94,87,013 9 0	2,72,872 14 0	1,52,35,760 13 0	1,865,956½	1,771,336½	3,157,291½
Total for 19½ weeks ...	5,404,298	57,95,019 3 0	4,58,47,564 30	1,01,06,222 11 0	2,82,082 8 0	1,61,90,321 6 0	1,462,613½	1,876,327½	3,338,940½
COMPARISON.									
Total for corresponding week of previous year ...	296,449½	3,06,567 11 9	25,57,682 10	6,12,463 5 0	18,504 7 5	9,07,475 8 2	75,835	97,424	173,259
Per mile of railway corresponding week of previous year ...	.....	227 9 10	.....	380 4 1	11 7 10	619 5 9	.....	.....	.....
Total for corresponding 19½ weeks of previous year ...	5,040,642	52,51,330 1 7	4,41,40,887 0	97,84,431 8 0	3,12,324 15 8	1,53,49,147 9 3	1,436,224	1,770,368	3,206,592

\* The decrease in coaching is due to figures for the corresponding period of 1892 having included return traffic on account of eclipse of the moon and Sonapur fair.

## TAREESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 11th November 1893, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	*17,388	Rs. A. P. 4,177 11 0	Mds. S. 11,087 20	Rs. A. P. 414 7 0	Rs. A. P. 13 0 0	Rs. A. P. 4,635 2 0	900	68	968
Or per mile of railway ...	.....	187 12 2	.....	19 15 7	0 9 4	208 5 1	.....	.....	.....
For previous 18½ weeks of half-year ...	*315,415	*77,078 2 0	11,61,063 10	15,231 2 0	1407 0 0	82,716 4 0	16,228	1,402½	17,630½
Total for 19½ weeks ...	332,803	81,285 13 0	1,72,060 30	5,675 9 0	420 0 0	87,351 6 0	17,128	1,470½	18,598½
COMPARISON.									
Total for corresponding week of previous year ...	20,789	5,149 13 3	9,994 10	566 14 0	13 9 0	5,730 4 3	878	90	968
Per mile of railway corresponding week of previous year ...	.....	231 7 3	.....	25 7 8	0 9 9	257 8 8	.....	.....	.....
Total for corresponding 19½ weeks of previous year ...	364,123	89,627 3 2	1,30,829 0	5,786 9 0	261 13 0	95,605 9 2	17,419	1,310	18,729

\* Deducted number of passengers 1,001 and Rs. 877  
 † Added mounds 290 and " 105 } on account of difference between the approximate and audited figures for the week ended 30th September 1893.  
 ‡ Deducted " 3  
 § The decrease is chiefly at Sheoraphuli and Tarekwar.

## DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for week ended 11th November 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	16,125	Rs. A. P. 17,253 10 0	Mds. S. 50,787 10	Rs. A. P. 9,034 12 0	Rs. A. P. 43 0 0	Rs. A. P. 20,331 6 0	6,813	2,989	9,751
Or per mile of railway ...	.....	106 14 5	.....	56 15 8	0 4 3	163 2 4	.....	.....	.....
For previous 18½ weeks of half-year ...	*364,764	*2,68,287 8 0	10,50,701 30	11,38,651 13 0	1685 0 0	3,97,584 5 0	112,770	51,909½	164,671½
Total for 19½ weeks ...	380,889	2,75,491 2 0	11,10,480 0	1,47,686 9 0	738 0 0	4,23,915 11 0	119,583	54,848½	174,43½
COMPARISON.									
Total for corresponding week of previous year ...	19,171	17,404 3 6	1,28,170 30	8,638 4 0	72 18 9	24,115 5 3	6,893	2,785	9,08
Per mile of railway corresponding week of previous year ...	.....	107 13 4	.....	53 8 4	0 7 3	161 12 11	.....	.....	.....
Total for corresponding 19½ weeks of previous year ...	320,091	2,51,635 10 11	8,20,036 0	1,32,895 13 8	1,984 3 9	3,86,716 12 2	125,039	46,924	171,96

\* Added number of passengers 408 and Rs. 783 }  
 † Deducted mounds 7,311 and added " 835 } on account of difference between the approximate and audited figures for the week ended 30th September 1893.  
 ‡ Added " 12



## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K.-D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for the week ended 11th November 1893, on 778 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	156,250	79,970 0 0	8,95,890 0	2,19,900 0 0	16,230 0 0	3,16,100 0 0	27,762	44,497	72,259
Or per mile of railway ...	201	103 0 0	1,152 0	283 0 0	† 1 0 0	† 387 0 0	...	...	...
For previous 18 weeks of half-year* ...	2,973,705	13,51,070 0 0	1,58,40,414 0	31,80,204 0 0	3,16,218 0 0	48,48,392 0 0	511,539	627,382	1,139,921
Total for 19 weeks ...	3,129,955	14,31,040 0 0	1,67,36,304 0	34,00,104 0 0	3,32,448 0 0	51,61,492 0 0	539,001	671,879	1,211,480
COMPARISON.									
Total for corresponding week of previous year ...	187,846	a 90,473 0 0	8,44,064 0	2,18,733 0 0	20,868 0 0	3,30,054 0 0	28,000	45,540	73,540
Per mile of railway corresponding week of previous year ...	242	116 0 0	1,073 0	282 0 0	† 1 0 0	† 399 0 0	...	...	...
Total to corresponding date of previous year ...	3,058,590	13,47,501 0 0	1,41,06,956 0	33,76,983 0 0	3,36,418 0 0	50,61,302 0 0	523,093	721,544	1,245,237

\* Audited up to week ending 16th September 1893.

† Excluding steamer earnings.

a Increase is due to moon eclipse.

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for the week ended 11th November 1893, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	32,130	10,780 0 0	49,140 0	3,860 0 0	80 0 0	11,720 0 0	3,055	2,017	5,072
Or per mile of railway ...	257	86 0 0	393 0	31 0 0	1 0 0	118 0 0	...	...	...
For previous 18 weeks of half-year* ...	568,014	1,84,093 0 0	9,37,154 0	81,907 0 0	2,771 0 0	2,66,771 0 0	67,607	35,540	103,153
Total for 19 weeks ...	600,144	1,94,873 0 0	10,46,294 0	85,767 0 0	2,851 0 0	2,83,401 0 0	71,282	37,563	108,835
COMPARISON.									
Total for corresponding week of previous year ...	37,967	13,010 0 0	73,005 0	4,947 0 0	118 0 0	18,104 0 0	3,869	2,030	5,908
Per mile of railway corresponding week of previous year ...	304	104 0 0	584 0	40 0 0	1 0 0	145 0 0	...	...	...
Total to corresponding date of previous year ...	687,706	1,93,543 0 0	10,57,347 0	88,465 0 0	3,419 0 0	2,85,427 0 0	70,828	40,911	111,739

\* Audited up to week ending 16th September 1893.

## DACCA STATE RAILWAY.

Approximate Return of Traffic for the week ended 11th November 1893, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	18,180	6,000 0 0	40,590 0	4,100 0 0	130 0 0	11,220 0 0	2,487	1,833	4,320
Or per mile of railway ...	211	80 0 0	472 0	49 0 0	1 0 0	130 0 0	...	...	...
For previous 18 weeks of half-year* ...	310,208	1,04,869 0 0	6,16,959 0	46,747 0 0	2,739 0 0	1,54,415 0 0	45,540	18,974	64,520
Total for 19 weeks ...	328,388	1,11,769 0 0	6,57,549 0	50,937 0 0	2,920 0 0	1,65,635 0 0	48,033	20,107	68,140
COMPARISON.									
Total for corresponding week of previous year ...	18,522	5,801 0 0	42,833 0	4,184 0 0	90 0 0	10,144 0 0	2,487	1,186	3,673
Per mile of railway corresponding week of previous year ...	215	68 0 0	498 0	49 0 0	1 0 0	118 0 0	...	...	...
Total to corresponding date of previous year ...	313,366	1,02,135 0 0	4,56,770 0	38,650 0 0	4,123 0 0	1,44,016 0 0	48,700	14,016	62,716

\* Audited up to week ending 16th September 1893.

† Ditto ditto 21st October 1893.

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

						Rs.	A.	P.
Approximate earnings for the week ending 11th November 1893	...	...	...	...	...	17,068	0	0
Corresponding period of 1892	...	...	...	...	...	14,017	0	0
Increase	...	...	...	...	...	3,051	0	0
Receipts per mile for the week ending 11th November 1893	...	...	...	...	...	934	10	8
Corresponding period of 1892	...	...	...	...	...	274	13	6
Increase	...	...	...	...	...	659	13	2
Receipts from 1st July to 11th November 1893	...	...	...	...	...	2,34,086	0	0
Corresponding period of 1892	...	...	...	...	...	2,38,840	0	0
Decrease	...	...	...	...	...	4,754	0	0



# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, NOVEMBER 29, 1893.

## OFFICIAL PAPERS.

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### REPORT ON THE STATE OF THE SALT MARKET FOR THE SECOND QUARTER OF 1893-94.

No. 987B., dated Calcutta, the 25th November 1893.

From—T. INGLIS, Esq., Secretary to the Board of Revenue, L.P.,

To—The Secretary to the Government of Bengal, Financial Department.

I AM directed by the Board of Revenue to submit the following report on the state of the salt market for the second quarter of 1893-94, comprising the months of July, August, and September 1893.

SALT.

HON'BLE D. R. LYALL, C.S.I.

2. The quantity of salt of every description cleared during the quarter under report amounted to 24,44,590 maunds, against 24,33,242 maunds in the previous quarter, and 26,38,321 maunds in the corresponding quarter of the previous year; and the net amount of duty levied thereon was Rs. 57,21,769, against Rs. 56,96,847 in the previous quarter, and Rs. 61,91,983 in the corresponding quarter of the previous year. In all cases fractions are omitted.

3. The quantity of excise salt removed from the golas in Orissa during the quarter under review, and the quantity which remained in store at the close of the quarter, are shown in table I:—

TABLE I.

			Outlack.	Puri.	Balasore.
			Mds. s.	Mds. s.	Mds. s.
Balance at close of the last quarter	...	...	...	32,741 0	243 0
Manufactured or added during the quarter	...	...	...	8 0	.....
Total	...	...	...	32,749 0	243 0
Sales during the quarter	...	...	...	15,386 0	71 0
Wastage	...	...	...	198 0	.....
Total	...	...	...	15,583 0	71 0
Balance at close of the quarter	...	...	...	17,166 0	172 0

4. The total sale of excise salt during the quarter under review amounted to 15,456 maunds, against 2,596 maunds in the previous quarter, and 27,734 maunds in the corresponding quarter of the previous year. The total amount of excise salt on which duty was paid during the quarter was 15,467 maunds.

5. The subjoined table shows in detail the importations into the port of Calcutta and the total clearances of sea-imported salt during the quarter under review compared with the figures of the corresponding quarters of the previous two years:—

TABLE II.

GROUP.	Port.	1891-92.		1892-93.		1893-94.	
		Second quarter.		Second quarter.		Second quarter.	
		Imported.	Cleared.	Imported.	Cleared.	Imported.	Cleared.
		Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
I	United Kingdom	13,34,037	15,99,146	15,12,413	14,87,107	17,23,135	10,30,879
II	Hamburg	6,39,524	4,91,189	4,65,007	4,11,816	87,792	1,45,912
III	Austria	.....	.....	.....	11,806	13,397	2,847
III	Fougies	.....	.....	.....	2,442	77,070	.....
III	Lunga	46,700	2,446	.....	.....	.....	.....
III	Kishim	.....	18,872	.....	.....	.....	.....
III	Muscat	47,795	33,640	1,27,213	41,770	50,007	64,345
III	Hanjam	.....	76,382	.....	4,887	.....	13,640
IV	Salif	46,300	8,400	91,068	66,204	40,000	46,400
IV	Jedda	.....	.....	38,111	.....	1,02,356	1,33,108
IV	Berwayah	.....	.....	1,08,889	.....	1,36,111	1,31,419
IV	Aden	2,98,219	2,08,009	1,71,772	2,38,060	.....	.....
IV	Ceylon	.....	7,450	.....	.....	2,100	2,100
V	Madras	.....	2,138	.....	13,462	.....	.....
V	Tuticorin	.....	.....	.....	.....	10,000	10,000
VI	Cochin	.....	.....	.....	.....	50,218	1,40,539
VI	Bombay	2,74,267	1,70,504	70,132	1,52,503	.....	.....
	Total	20,78,592	26,24,266	26,64,504	24,81,010	23,01,180	23,63,912

6. Table III shows the quantity of sea-imported salt remaining in the warehouses at the close of the quarter as compared with the results of the previous four quarters:—

TABLE III.

WHERE STORED.		Second quarter of 1892-93.	Third quarter of 1892-93.	Fourth quarter of 1892-93.	First quarter of 1893-94.	Second quarter of 1893-94.
		Mds.	Mds.	Mds.	Mds.	Mds.
Sulkea Government golas	...	8,13,402	8,40,047	6,12,084	7,47,749	8,42,006
Chittagong ditto do.	...	1,03,167	1,56,714	1,10,380	1,01,048	30,883
Ditto private do.	...	.....	.....	.....	.....	.....
Narsinganj ditto do.	...	.....	.....	.....	.....	.....
Total	...	9,16,569	9,97,361	7,22,464	8,49,391	8,72,889

7. The despatches of salt from Calcutta by water and the three railways passing the several salt-pass stations into the interior of the country both east and west of the river Hooghly, as well as the despatches by steamers and

flats during the quarter under review and the corresponding quarters of the previous two years, are shown in the table below:—

TABLE IV.

PERIOD.	BY WATER.					BY RAIL.			BY STEAMERS AND FLATS.	
	Via Balikhah.	Via Sankral.	Via Gowa-khally.	Via Kuddipore.	Via Balla-shata.	Via Butkhollah Ghat.	By the East Indian Railway.	By the East India Company.	Quantity despatched by steamers and flats.	Quantity despatched by steamers and flats.
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Second quarter of 1891-92	3 56 164	1 84 772	54 220	1 18 489	4 07 136	1 57 8	7 03 048	3 94 477	3 38 588	58 710
Ditto of 1892-93	3 51 663	1 56 052	70 145	1 01 822	4 10 719	244	7 48 457	3 44 197	3 55 611	67 437
Ditto of 1893-94	3 12 010	1 35 624	55 48	64 365	3 18 417	388	6 50 913	3 95 938	3 50 415	64 650

8. The quantity of salt despatched by the East Indian Railway to stations beyond Buxar during the quarter under review amounted to 1,438 maunds as noted in the margin, against 1,032 maunds 30 seers in the previous quarter, and 4,131 maunds 10 seers in the corresponding quarter of the previous year.

9. The quantity of saltpetre salt removed from the refineries on payment of duty amounted to 4,311 maunds, against 9,349 maunds in the previous quarter.

10. The shipments of Liverpool salt for the port of Calcutta according to published market reports were as follows:—

	Tons
July	21,280
August	18,490
September	18,670
Total	58,440

It is reported that 14,765 tons of Hamburg salt were shipped for Calcutta during the quarter under review.

11. Table V shows the average wholesale price per 100 maunds of Liverpool and other descriptions of salt during each fortnight of the quarter:—

TABLE V.

DESCRIPTION OF SALT.	Fortnight ending 17th July 1893	Fortnight ending 31st July 1893	Fortnight ending 14th August 1893	Fortnight ending 31st August 1893	Fortnight ending 15th September 1893	Fortnight ending 30th September 1893.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Liverpool	16 12 9	71 15 0	71 1 11	71 10 7	70 4 7	72 6 9
Hamburg karkach	08 14 7	64 4 10	18 13 0	05 11 1	04 14 0	53 0 0
Muscat ditto	51 0 0			76 9 4	54 6 5	67 4 0
Jedda ditto	54 8 0		57 0 0	57 0 1	62 1 5	60 5 4
Bombay ditto	45 15 2	45 6 11	46 0 0	43 0 0	62 11 0	88 0 0
Rock ditto	90 0 0			85 0 0		

12. The following table shows the quantity of sea-imported salt admitted into bond and cleared from bond and shipboard at Chittagong and Narainganj during the quarter under review and the corresponding quarter of 1892-93:—

TABLE VI

PORT.	Description of Salt.	ADMITTED INTO BOND.		CLEARED	
		Second quarter of 1892-93	Second quarter of 1893-94	Second quarter of 1892-93	Second quarter of 1893-94.
		Mds. s.	Mds. s.	Mds. s. c.	Mds. s. c.
Chittagong	Liverpool	17 105 0		47 580 0 0	30 453 52 0
	Hamburg				6 470 0 0
	Madras			0 31 8	1 5 8
	Ceylon			0 1 8	
Narainganj	Burma			0 11 0	
	Liverpool			76 725 0 0	21 385 0 0
	Total	97 105 0		1,24 806 4 0	66 209 37 8

No transactions in sea-imported salt have been reported for the quarter from the ports of Cuttack, Puri, and Balasore.

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 25th November, 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL.</b>			
Burdwan Divs.	1 Burdwan Nov. 25, '98 Nil	Nil	Weather—hot for the time of year and somewhat cloudy. Prospects of standing crops good. <i>Rabi</i> cultivation progressing. Fodder sufficient. Prices of common rice :—  <div style="display: flex; justify-content: flex-end; align-items: center;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div>Srs.</div> <div>10 to 14</div> <div>9 to 13</div> <div>15</div> <div>15</div> </div> <div style="margin-left: 10px;">} per rupee.</div> </div>
	Kalsa .. Nil	Nil	
	Katwa .. Nil	Nil	
	Raniganj .. Nil	Nil	
	2 Bankura .. 25, '98 Nil	Nil	Weather—occasionally cloudy. Harvesting of <i>aman</i> crop almost finished. <i>Aman</i> crop doing well. Fodder and water sufficient. Common rice (new) selling at 18 seers per rupee at Sadar and 17 seers at Vishnupur.
	3 Birbhum .. 25, '98 Nil	Nil	Weather—cloudy in the morning. Rather warm for the time of year. Sowing of spring crops commenced. Winter rice continues good. New rice coming into the market, and prices a little lower in some places.
	Rampur Hat .. Nil	Nil	
	4 Midnapore .. 25, '98 Nil	Nil	Weather—getting warmer. Prospects of crops very good. Prices of common rice :—  <div style="display: flex; justify-content: flex-end; align-items: center;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div>Srs.</div> <div>12</div> <div>14</div> <div>12 to 13</div> <div>11 to 13</div> </div> <div style="margin-left: 10px;">} per rupee.</div> </div>
	5 Hooghly .. 25, '98 Nil	Nil	Weather—rather warm for the time of year, but seasonable on the whole. <i>Aman</i> doing well everywhere; harvest commenced in Jahanabad. <i>Rabi</i> cultivation progressing. Fodder and water sufficient. Prices of common rice :—  <div style="display: flex; justify-content: flex-end; align-items: center;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div>Srs.</div> <div>12 to 13</div> <div>10 to 14</div> <div>11 to 14</div> </div> <div style="margin-left: 10px;">} per rupee.</div> </div>
	Serampore .. Nil	Nil	
	Jahanabad .. Nil	Nil	
Presidency Divs.	6 Howrah .. 25, '98 Nil	Nil	Weather—rather warm and occasionally cloudy. <i>Aman</i> paddy being harvested. Sugarcane doing well. <i>Rabi</i> crops being sown. Condition of cattle good. Fodder and water sufficient. Price of common rice 10 to 11½ seers per rupee.
	Ulubaria .. Nil	Nil	
	7 24 Parganas .. 25, '98 Nil	Nil	Weather—seasonable. Harvesting of <i>aman</i> briskly going on. Sowing of <i>rabi</i> crops continues. Sugarcane doing well. Prospects of crops fair on the whole. Rice sells at—  <div style="display: flex; justify-content: flex-end; align-items: center;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div>Srs.   c.</div> <div>9½ to 12   0</div> <div>10   10½</div> <div>11   0</div> <div>13   8</div> </div> <div style="margin-left: 10px;">} per rupee.</div> </div>
	8 Nadia .. 25, '98 Nil	Nil	Weather—cooler. Prospects of <i>aman</i> rice fair. Sowing of <i>rabi</i> finished. Prices have slightly fallen. Fodder and water sufficient. No cattle-disease.
	Kushtia .. Nil	Nil	
	Meherpur .. Nil	Nil	
	Chuadanga .. Nil	Nil	
	Banaghat .. Nil	Nil	
	9 Khulna .. 25, '98 Nil	Nil	Weather—fine and unusually warm for the time of year. Prospects of <i>aman</i> good. Reaping begun in places. <i>Chottan</i> paddy being reaped. <i>Rabi</i> crops being sown.
	Bagerhat .. Nil	Nil	
	Satkhira .. Nil	Nil	
	10 Jessore .. 25, '98 Nil	Nil	Weather—seasonable. Sowing of winter crops going on. Prospects of <i>aman</i> and other winter crops fair. <i>Chhotan aman</i> is being harvested. No cattle-disease reported. Fodder and water sufficient. Prices stationary.
	Jhenida .. Nil	Nil	
	Magura .. Nil	Nil	
	Narail .. Nil	Nil	
	Bangson .. Nil	Nil	
	11 Murshidabad .. 25, '98 Nil	Nil	Weather—fair and getting cool. Sowing of <i>rabi</i> crops continues and that of indigo nearly finished. State of <i>aman</i> crop appears to be good. Fodder and water sufficient for cattle. Common rice sells at 12 seers per rupee.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL—conold.</b>			
CHITTAGONG DIV.	12 Chittagong Nov. 25, '93	Nil	Weather—seasonable. Prospects of paddy crop good. Winter crops are being sown and transplanted. Prices have slightly fallen. Water and fodder sufficient.
	13 Noakhali „ 25, '93	Nil	Weather—seasonable; getting cold. <i>Zabi</i> crops being sown. Standing crops doing well. Slight damage to paddy by insects reported from three outposts. No cattle-disease. Water and fodder sufficient. Price of common rice varies from 11 to 13 seers per rupee.
	14 Tippera „ 25, '93	0.06	Weather—seasonable: temperature cool with brisk north wind. <i>Aman</i> crop being reaped; prospects good except in north of district, where insects are doing damage; total crop probably full ten annas. Fodder-supply improving.
	15 Chittagong Hill Tracts. „ 24, '93	Nil	Weather—hot at noon, and a little cold from the latter part of night till 8 A.M. with fogs. Condition of late plough-paddy favourable. No cattle-disease reported. Common rice selling at 10 seers per rupee.
DACCA DIV.	16 Dacca „ 25, '93	Nil	Weather—seasonable. Harvesting of <i>aman</i> paddy going on. Prospects favourable. Sowing of pulses in low lands still going on. Common rice selling at from 7 to 11 seers per rupee. Fodder available. No cattle-disease.
	17 Faridpur „ 25, '93	Nil	Weather—rather warmer than usual. State of crops unchanged. Early <i>aman</i> being harvested and <i>rabi</i> crops being sown. Price of common rice the same as last week. No cattle-disease. Fodder plentiful.
	Goalundo Madaripur ...	Nil	
	18 B. ckerungge „ 25, '93	Nil	
RAJSHAH DIV.	19 Mymensingh „ 25, '93	Nil	Weather—seasonable. Prospects of standing crops good. Harvesting of <i>aman</i> paddy going on. Common rice selling at from 8 to 11 seers per rupee. Condition of cattle good. Supply of fodder sufficient, except in some places in the Kishorganj subdivision.
	20 Dinajpur „ 25, '93	Nil	Weather—cool and pleasant. Condition of standing crops good. Winter crops are still being sown in some places. Condition of cattle good. Fodder and drinking water ample. Prices of rice both at Sadar and Thakurgaon stationary.
	Thakurgaon ...	Nil	
	21 Rajshahi „ 25, '93	Nil	Weather—cloudy and getting cooler every day. Ploughing for and sowing of <i>rabi</i> crops going on smoothly. Harvesting of <i>ropa</i> paddy going on. Prospects of standing crops good everywhere. Water and fodder-supply ample. Rice selling from 10 to 17 seers per rupee.
	Nator ...	Nil	
	Naugaon ...	Nil	
	22 Rangpur „ 25, '93	Nil	Weather—fair and cool. Harvesting of <i>aman</i> commenced. Sugarcane being cut. Cultivation for <i>rabi</i> crops still going on. Prospects of standing crops good. Price of rice 9 to 13 seers per rupee.
	Kurigaon ...	Nil	
	Gaibanda ...	Nil	
	Nilphamari ...	Nil	Weather—fine and cool. <i>Aman</i> is being cut; outturn estimated at 18 annas. Common rice sells at 13 seers per rupee. Fodder and water sufficient.
	23 Bogra „ 25, '93	Nil	
	24 Pabna „ 25, '93	Nil	
RAJSHAH DIV.	25 Darjeeling „ 25, '93	0.05	Weather—seasonable. In the hills:— <i>Aghani dhan</i> , <i>marua</i> , and <i>kalai</i> are being harvested. <i>Torce</i> , <i>phaphur</i> , and potatoes ripening. Wheat and barley progressing well. In the Terai:—Paddy ripening and other standing crops doing well. Sowing of mustard finished. Fodder and water-supply sufficient. Prices of coarse rice:— Sss. Hills ... 8 to 9 } per rupee. Terai ... 11 to 13 }
	Siliguri ...	Nil	
26	Jalpaiguri „ 25, '93	Nil	Weather—seasonable. <i>Haimanti</i> paddy promises well. Cultivation of tobacco commenced. Price of rice stationary. Supply of water and fodder sufficient.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR.</b>			
BHAGALPUR DIV.	27 Monghyr Nov. 25, '93	Nil	Weather—fair and seasonably cool. Winter rice is ripening. Prospects favourable. <i>Rabi</i> sowings continue. <i>Kurthi</i> , sugarcane and indigo doing well. Cattle-disease in some places. Fodder and water sufficient. Prices of common rice:—
	Jamui ...	Nil	
	Begusarai ...	Nil	
	28 Bhagalpur .. 25, '93	Nil	Weather—cloudy and warm. State and prospects of crops very good. Price of common rice 16 seers 6 chittaks per rupee.
	Banka ...	Nil	
	Madhipura ...	Nil	
	Supaul ..	Nil	
	29 Purnea .. 25, '93	Nil	Weather—cold. Harvesting of <i>aghani</i> paddy going on everywhere in the district. Prospects excellent. Fodder and water sufficient. Prices stationary.
	Kishanganj ...	Nil	
	Araria ...	Nil	
PATNA DIVISION.	30 Malda .. 25, '93	Nil	Weather—fair and cool. Winter rice being harvested; an average crop is expected. <i>Kalai</i> pulse in flower. Sowing of <i>rabi</i> crops finished. Ordinary rice sells at 12 to 21 seers per rupee. No want of fodder or drinking water.
	31 Sonthul Parganas .. 25, '93	Nil	
	Deoghur ...	Nil	
	Godda ...	Nil	Weather—cloudy and somewhat warm. Harvesting of paddy, <i>kurthi</i> , <i>til</i> and <i>kalai</i> going on. A good outturn of paddy expected. Fodder and water-supply sufficient.
	Jamtara ...	Nil	
	Pakur ...	Nil	
	Rajmahal ...	Nil	
	32 Patna .. 25, '93	Nil	Weather—cool for the season. Paddy harvest has commenced. <i>Rabi</i> sowings nearly completed. New common rice is in market and being sold at—
	Dinapore ...	0.5	
	33 Gaya .. 25, '93	Nil	Weather—cloudy and seasonable. Harvesting of paddy crop and sowing of <i>rabi</i> and poppy crops going on. Prices of food crops stationary. Fodder and water for cattle sufficient.
	Nawada ...	0.02	
	Aurangabad ...	0.04	
	Jahanabad ...	Nil	
	34 Shahabad .. 25, '93	0.07	After several cloudy days the west wind has set in and the weather is now fine and settled. Prospects of both paddy and <i>rabi</i> crops excellent. Prices steady.
	Buxar ...	0.36	
	Masaram ...	0.70	
	Bhabhua ...	0.80	
	35 Darbhanga .. 25, '93	Nil	Weather—getting cool. Harvesting of rice in progress. <i>Rabi</i> sowings being vigorously pushed on. Poppy cultivation going on, but unusually late owing to excessive moisture. Fodder and water for cattle sufficient. Prices remain steady.
	36 Muzaffarpur .. 25, '93	0.05	
	Hajipur ...	Nil	
	Sitamarhi ...	0.40	

Srs.

13 to 20

12 to 16

14

} per rupee.



No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
BIHAR—consold.			
PATNA DIVISION—consold.	37	Saran Nov. 25, '93	0.06
		Siwan ...	Nil
		Gopalganj ...	Nil
88	Champaran „ 25, '93	0.04	Weather—fair and cloudy at times, wind changeable. Paddy being harvested; fair outturn expected. <i>Rabi</i> crops promise to be good. Poppy prospects excellent. Fodder and water sufficient. Prices of common rice:— <div>Srs. . Sadar ... .. 16 Siwan ... .. 19 Gopalganj ... .. 17 } per rupee.</div>
ORISSA.			
ORISSA DIVN.	39	Cuttack „ 25, '93	Nil
40	Puri „ 23, '93	Nil	Weather—seasonable. Reaping of <i>aghani</i> has commenced. <i>Rabi</i> sowings in progress. Prices slightly falling. Slight scarcity of fodder.
	Khurda ...	Nil	
41	Balasore „ 25, '93	Nil	Weather—cloudy and warm. All crops on the ground doing well. Prices of common rice:— <div>Srs. O. Srs. C. Sadar ... .. 10 8 to 14 7 Jajpur ... .. 13 2 to 15 12 Kendrapara ... .. 11 12 to 21 0 Banki ... .. 15 12 } per rupee.</div>
CHOTA NAGPUR.			
South-West Frontier Agency.			
CHOTA NAGPUR DIVN.	42	Hazaribagh Nov. 25, '93	Nil
		Giridi ...	Nil
43	Lohardaga „ 25, '93	Nil	Weather—fair and cloudy alternately. Paddy harvesting nearly completed. Poppy sowings going on. <i>Rabi</i> crops doing well. Prospects generally good.
44	Palamau ...	...	Weather—seasonable. Harvesting of winter rice continues. Common rice selling at 15 seers per rupee. Fodder and water plentiful.
45	Singbhum „ 25, '93	Nil	Report not received.
46	Manbhum „ 25, '93	Nil	Weather—cloudy and warm. Harvesting of paddy continues. Condition of crops on ground satisfactory. Price of rice stationary. Cattle-disease exists in some of the villages in the Chakardharpur thana.
	Gobindpur ...	Nil	Weather—cloudy with occasional sunshine. Harvesting of rice has commenced; probable outturn twelve annas. New rice selling from 14 to 17 seers per rupee. Fodder and water sufficient.

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 28th November, 1893.

M. FINUCANE,  
Offg. Secy. to the Govt. of Bengal.

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	District.	Representative station.	STATION OBSERVATIONS.												
			AIR PRESSURE.			WIND.		TEMPERATURE.							
			Mean barometric height, 8 A. M. reduced to 32°.	Mean reduced to sea-level and constant gravity, lat. 45°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.	
ORISSA.	Port	Puri	30°038	30°003	—	Calm & NNE.	75	84°7	24 & 25 Nov.	67°6	20th Nov.	85°5	70°0	76°8	
		Gopalpore	30°030	30°000	+°027	NNW	199	83°7	25th	66°1	19 & 20	82°7	67°0	74°8	
		False Point	30°044	30°007	+°033	N	123	83°9	25th	69°5	20th	82°2	65°7	74°0	
	Cuttack	Cuttack	29°076	30°001	+°027	Calm	27	87°7	25th	66°3	21st	85°8	68°2	77°0	
	Balasore	Balasore	30°006	30°010	+°024	NEly	57	85°4	24th	60°0	20th	83°8	63°8	73°8	
	Midnapore	Midnapore	29°025	30°026	+°031	N & NE	26	87°3	23rd	60°2	19th	84°9	64°2	74°6	
	24-Pargannas	Calcutta	30°045	30°012	+°020	Calm	24	82°2	22, 23 & 25.	62°7	20 & 21	81°0	64°4	73°0	
		Saugor Island	30°038	30°003	+°036	NEly	163	82°2	24 & 25	64°4	21st	80°9	66°3	73°6	
	Howrah	Howrah													
	Hookhly	Hookhly													
SOUTH-WEST BENGAL.	Nadia	Krishnagar	30°010	30°016	+°033	Variable	53	83°7	21st	61°4	20th	82°4	63°4	72°9	
	Khulna	Jessore	30°020	30°010	+°037	Calm	28	83°0	21 & 22	61°5	20th	82°5	63°4	72°9	
	Burdwan	Burdwan	29°071	30°020	+°025	Variable	29	83°9	22nd	63°2	19th	82°5	65°3	73°9	
		Raniganj	29°742	30°040	+°030	Variable	23	83°9	22nd	63°2	19th	82°5	65°3	73°9	
	Bankura	Bankura	29°761	30°023	+°036	Calm	26	85°1	22nd	60°0	19th	83°3	63°8	73°6	
	Birbhum	Berhampore	30°000	30°017	+°023	Nly	29	82°1	22nd	64°2	19th	80°2	66°3	72°8	
	Murshidabad	Sirajganj	30°007	30°004	+°029	Calm	14	82°5	22nd	59°8	23 & 25	81°5	61°3	71°5	
	Bogra	Bogra	29°063	30°006	+°050	NE	25	83°2	21st	57°2	24 & 25	81°7	60°4	71°1	
	Rajahmatt	Rampur Boalia	29°084	30°006	+°033	Nly & Calm.	83	81°6	20th	61°2	19th	80°3	63°2	71°8	
	Malda	Malda	29°090	30°025	—	NW	46	82°4	21st	60°2	19th	80°8	61°8	71°3	
NORTH BENGAL.	Dinajpur	Dinajpur	29°040	30°027	+°040	NE	35	82°1	22nd	59°5	23rd	81°1	61°8	71°5	
	Rangpur	Rangpur	29°040	30°027	+°030	ESE	38	81°2	22nd	59°3	24th	80°4	60°5	70°5	
	Jalpaiguri	Jalpaiguri	29°795	30°043	+°049	Variable	53	81°4	21 & 22	58°6	24th	80°2	60°5	70°4	
	Kuch Bihar	Jalpaiguri	29°795	30°043	+°049	Variable	53	81°4	21 & 22	58°6	24th	80°2	60°5	70°4	
	Darjeeling	Darjeeling	23°071	—	+°015	NP	71	54°4	20th	39°6	23rd	52°0	40°4	46°3	
	Sikkim	Guntong	18°038	—	—	Variable	55	40°3	23rd	21°1	22nd	30°0	23°7	29°9	
	Chittagong	Chittagong	29°008	30°003	+°047	NE	60	83°2	24th	63°1	24th	82°5	65°2	73°9	
	Chittagong Hill Tracts	Demagiri													
	Hackerigunge	Barisal	30°033	29°001	+°051	Calm	36	83°8	22nd Nov.	63°9	20 & 25	82°9	64°9	73°9	
	Noakhali	Noakhali	29°001	29°082	+°038	NNE	57	82°6	20 & 24	62°0	25th	81°8	65°5	73°6	
EAST BENGAL.	Faridpur	Faridpur	30°017	30°012	+°046	Calm	17	81°5	21 to 23	58°0	20th	80°0	62°9	71°8	
	Dacca	Dacca	30°027	29°004	+°031	Variable	57	84°0	21st	63°8	25th	83°6	65°0	74°3	
	Tippera	Comilla	30°017	30°002	+°047	NEly & Calm.	28	84°4	22nd	60°9	25th	83°1	63°3	73°2	
	Mymensingh	Mymensingh	29°081	30°004	+°036	Variable	38	81°6	22nd	60°2	19th	80°7	62°8	71°8	
	Purnea	Purnea	29°044	30°028	+°024	Calm	7	80°2	20, 22, 23, & 25.	59°3	19th	79°6	62°6	71°1	
	Bhagalpur	Bhagalpur	29°003	30°021	+°023	Calm	6	82°3	22nd	56°0	19th	81°2	61°7	71°6	
	Darbhanga	Darbhanga	29°008	30°034	+°012	WNW	32	80°3	21 & 25	60°4	19th	79°3	68°7	71°4	
	Muzaffarpur	Muzaffarpur	29°089	30°038	—	Variable	33	79°7	25th	57°3	19th	78°3	61°9	70°1	
	Champaran	Motihari	29°837	30°028	+°030	Variable	61	80°2	25th	54°9	19th	79°1	58°0	68°6	
	Saran	Chapra	29°003	30°014	+°052	NWly	42	81°2	25th	58°1	19th	78°8	63°8	70°8	
NORTH BIHAR.	Shahabad	Dehri	29°736	30°050	+°030	Variable	88°	81°7	25th	57°8	19th	80°1	62°2	71°1	
		Buxar	29°840	30°050	+°021	Variable	47	81°6	24th	59°9	19th	79°1	62°0	70°9	
	Arrah	29°884	30°034	+°030	Nly	22	82°1	25th	67°2	19th	80°0	62°6	71°3		
	Gaya	Gaya	29°006	30°030	+°014	Ely	126	83°2	24th	56°8	20th	81°7	63°4	72°6	
	Patna	Bankipore	29°850	30°030	+°006	Variable	43	80°8	25th	67°3	19th	78°6	64°1	71°3	
	Monghyr														
	Sonthal Pargannas	Naya Dumka	29°162	30°032	+°042	NWly	40	81°6	21, 22 & 25.	58°0	19th	80°8	62°7	71°8	
	Hazaribagh	Hazaribagh	29°017	30°026	+°013	Ely	87	78°7	24th	55°8	19th	77°6	59°8	68°6	
	Lohardaga	Ranchi	27°866	30°020	+°023	Ely & Calm	52°	78°7	24th	55°5	19th	77°0	59°7	68°4	
	Palamau	Daltonganj	29°331	30°040	—	NWly	27	82°4	24 & 25	54°0	19th	80°5	62°3	71°4	
Singbhum	Chaibassa	29°282	30°013	+°035	Calm	1	85°2	25th	59°0	19th	83°7	63°3	73°5		
Manbhum															

\* Means for six days.

**Explanation.—Summary.**—The normal means of air pressure and temperature are the arithmetical average or means of the readings during the same period. The humidity of the atmosphere is expressed as percentage, saturated air being presented by 100. A clear sky is denoted by 0 and an overcast sky by 100. The normal mean are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional stations, i.e. from total rainfall at the subdivisional stations in the district sending in returns divided by the number of stations. A rainy day is one of

for the week ending Saturday, the 25th of November 1893.

DISTRICT OBSERVATIONS.																District.
General Observations.					OF WEEK.				RAINFALL.							
					Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Since 1st of month.			Since 16th October 1893.				
									Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.		
Variation from normal mean.	Mean 8 A.M. temperature.	Average humidity at 8 A.M.	Average cloud amount at 8 A.M.	Rainfall of week at observing station.												
-	74.2	82	0.4	Nil	Nil	0.41	0.00	0.47	0.42	2.20	-1.87	6.83	6.50	+0.33	Puri.	
+1.1	71.6	88	0	Nil												
+1.5	73.3	87	2.6	Nil												
+2.6	73.4	77	0.3	Nil	Nil	0.43	0.00	0.43	0.08	1.31	-1.13	4.20	4.21	-0.01	Outback.	
+3.5	68.7	91	0.4	Nil	Nil	0.14	0.00	0.33	0.04	0.94	-0.90	4.31	2.96	+1.35	Salasore.	
+4.1	70.9	77	1.1	Nil	Nil	0.03	0.00	0.23	0.08	0.34	-0.31	3.32	3.33	-0.01	Midnapore.	
+1.7	70.0	82	0.6	Nil	Nil	0.02	0.00	0.23	0.02	0.46	-0.44	2.44	3.23	-0.79	24-Parganas.	
+1.0	71.4	91	1.9	Nil												
					Nil	0.02	0.00	0.23	0.02	0.35	-0.33	2.39	2.11	+0.27	Howrah.	
					Nil	0.01	0.00	0.19	0.03	0.22	-0.19	2.35	2.27	+0.08	Koonghly.	
+1.0	70.9	70	3.9	Nil	Nil	0.01	0.00	0.14	0.25	0.35	-0.10	1.47	2.09	-0.62	Nadia.	
+0.8	70.2	89	1.7	Nil	Nil	0.10	0.00	0.31	0.04	0.53	-0.51	2.19	3.13	-0.94	Khulna.	
+2.4	70.4	79	3.7	Nil	Nil	0.44	0.00	0.27	0.12	0.35	-0.23	0.95	2.55	-1.60	Jessore.	
+2.4	68.4	82	2.6	Nil	Nil	Nil	0.00	0.00	0.08	0.27	-0.21	2.05	2.07	-0.02	Burdwan.	
+1.3	70.2	76	3.3	Nil	Nil	0.08	0.00	0.24	0.06	0.45	-0.39	2.20	2.17	+0.03	Sankura.	
+1.6	68.0	90	4.9	Nil	Nil	Nil	0.00	0.00	Nil	0.18	-0.18	1.76	2.00	-0.24	Birbhum.	
+1.0	69.4	91	0	Nil	Nil	0.01	0.00	0.00	Nil	0.23	-0.23	1.83	2.13	-0.30	Murshidabad.	
+0.6	70.1	82	0	Nil	Nil	Nil	0.00	0.00	Nil	0.30	-0.10	3.17	2.52	+0.65	Pabna.	
+3.6	70.6	81	2.6	Nil	Nil	0.01	0.00	0.03	Nil	0.31	-0.31	4.01	1.93	+2.08	Bogra.	
-	68.3	80	0.6	Nil	Nil	Nil	0.00	0.00	Nil	0.24	-0.24	2.73	1.77	+0.96	Rajshahi.	
+2.2	68.5	84	0.9	Nil	Nil	0.02	0.00	0.05	Nil	0.11	-0.11	2.81	1.40	+1.41	Malda.	
+1.7	66.8	88	0	Nil	Nil	Nil	0.00	0.00	Nil	0.09	-0.09	1.79	2.08	-0.29	Dinajpur.	
+1.7	67.6	80	2.7	Nil	Nil	0.17	0.00	0.00	Nil	0.10	-0.10	2.70	2.00	-0.70	Rangpur.	
-0.7	45.7	84	4.6	0.05	0.01	0.03	0.00	0.05	0.36	0.39	+0.06	5.05	2.08	+2.97	Jalpaiguri.	
-	31.7	78	1.0	0.16						0.06	+0.08	3.82	1.82	+2.00	Kuoh Bihur.	
+1.1	69.9	93	4.9	0.02	0.38	0.61	0.50	0.45	0.38	2.15	-1.77	6.14	4.89	+1.25	Darjeeling.	
					Nil	0.44	0.00	0.40	Nil	2.14	-2.14	5.31	4.13	+1.18	Gnatong.	
+2.4	73.0	84	0	Nil	Nil	0.29	0.00	0.41	Nil	1.50	-1.50	5.28	2.30	+2.98	Onitkong.	
+2.0	72.3	91	0.9	Nil	0.10	0.55	0.50	0.40	0.12	2.59		4.26			Onitkong Hill Tracts.	
+0.8	72.2	86	1.1	Nil	Nil	0.10	0.00	0.25	0.09	0.44	-0.35	1.67	2.39	-0.72	Backergunge.	
+1.1	71.4	82	0	Nil	Nil	0.15	0.00	0.33	0.06	0.73	-0.72	3.00	2.72	+0.28	Noakhali.	
+1.9	72.6	83	0.6	0.20	0.02	0.11	0.00	0.23	0.02	0.70	-0.68	3.60	2.70	+0.90	Faridpur.	
-0.4	68.3	89	1.7	Nil	Nil	0.02	0.00	0.11	0.10	0.33	-0.17	3.72	2.75	+0.97	Duoca.	
+2.6	65.9	93	0.9	Nil	Nil	Nil	0.00	0.00	0.01	0.07	-0.06	2.67	1.85	+1.12	Tippera.	
+3.7	69.3	86	2.6	Nil	Nil	0.01	0.00	0.03	0.02	0.09	-0.07	2.51	1.38	+1.13	Mymensingh.	
+1.9	66.6	90	2.1	0.03	0.03	0.01	0.23	0.03	0.14	0.05	+0.09	6.03	0.97	+5.06	Purnea.	
-	66.6	90	2.3	0.05	0.13	0.02	0.33	0.13	0.20	0.08	+0.12	7.44	1.13	+6.71	Bhagalpur.	
+1.8	65.4	88	2.0	0.04	0.02	0.01	0.00	0.08	0.07	0.03	+0.04	8.62	0.50	+8.12	Darbhanga.	
+2.6	63.0	80	6.3	0.06	0.02	0.04	0.00	0.06	0.31	0.08	+0.23	5.80	0.89	+4.97	Muzaffarpur.	
+4.0	68.8	87	5.6	0.39											Champanan.	
+3.0	67.9	83	6.1	0.36	0.47	0.05	1.00	0.13	0.85	0.17	+0.65	6.23	1.22	+5.03	Saran.	
+3.4	67.0	80	6.1	0.07											Shahabad.	
+3.9	67.7	84	5.6	0.00	0.03	Nil	0.00	0.00	0.07	0.15	-0.08	2.53	0.91	+1.62	Gaya.	
+3.2	63.1	80	5.7	0.03	0.02	0.01	0.00	0.09	0.08	0.11	-0.03	4.40	1.20	+3.11	Paine.	
					Nil	Nil	0.00	0.00	Nil	0.10	-0.10	1.71	1.43	+0.28	Monohyr.	
+2.9	63.2	70	2.4	Nil	Nil	Nil	0.00	0.00	Nil	0.13	-0.13	2.43	1.65	+0.78	Sonthal Parganas.	
+3.2	65.6	80	5.7	0.02	Nil	0.01	0.09	0.08	0.01	0.23	-0.27	3.67	1.35	+2.32	Hazaribagh.	
+4.3	65.9	79	3.1	Nil	Nil	0.07	0.00	0.29	0.14	0.26	-0.12	3.36	1.47	+1.89	Lohardaga.	
-	68.9	83	5.0	Nil	Nil	Nil	0.00	0.00	0.25	0.35	-0.10	2.34	1.26	+1.08	Palamanu.	
+4.5	68.0	84	3.3	Nil	Nil	0.01	0.00	0.20	0.11	0.35	-0.14	0.87	2.07	-1.20	Singbhum.	
					Nil	0.01	0.00	0.20	Nil	0.16	-0.16	1.44	1.44	+0.00	Manbhum.	

for the last ten years. The variations are *negative* when the mean for the week is less than the corresponding normal mean, and *positive* when greater. The numbers denoting cloud amount represents the part of the sky covered the whole sky being denoted by 10. Under the head District observations are for the period in question during the past ten years. The means of the districts are the numerical average of the rainfall returned received in the which at least a tenth of an inch fell.







**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, FOR THE WEEK ENDING 8 A.M., SATURDAY,  
THE 25TH OF NOVEMBER 1893.**

At the close of the previous week conditions were of ordinary monsoon character over Bengal. In the Arabian Sea, however, a small cyclonic storm had formed, which was advancing northwards. On the other hand, in the Bay conditions were normal, and only light monsoon weather prevailed in the south of the Bay and fine weather over the remainder. On the 19th, or the first day of the present week, conditions remained practically unchanged in Bengal, pressure having risen slowly at nearly all stations; while, on the other hand, temperature was usually falling, and both pressure and temperature were usually in slight excess. The small but rather severe storm in the Arabian Sea continued to advance northwards towards the Runn of Cutch. In the Bay of Bengal, also, winds at the eastern stations began to strengthen, and disturbed and unsettled weather, or perhaps even a small storm, was formed in the south-east of the Bay on this day. On the 20th the barometric changes over Bengal were exceedingly small, the fall of temperature had practically ceased, while humidity was increasing at many stations, and the sky was also clouding over to a certain extent. The storm from the Arabian Sea had struck the Kathiwar coast near Verawal, and was giving very unsettled weather with rain over a large part of North-Western India. In the Bay of Bengal, also, the small storm or disturbed weather commenced to move in a westerly direction from the south-east of the Bay, and hence conditions over a large area were very disturbed. On the 21st the conditions in Bengal began to show the effect of the disturbances, the barometric changes were decidedly irregular, temperature was increasing rather rapidly, while humidity was also decidedly high at the majority of stations. The disturbed conditions and rainfall due to the storm from the Arabian Sea had spread over Central India and the North-Western Provinces, and the rainfall had even reached the Bihar stations, where rather numerous showers were reported, while a few light showers also fell in East Bengal. The disturbance in the Bay apparently continued its westerly movement across the south of the Bay. On the 22nd the increase of pressure continued over a large part of Bengal, while temperature was still rising at the southern and eastern stations, though a fall had set in at the western and northern stations. Wind directions had become decidedly irregular, humidity was very high in all districts, while the sky was considerably clouded over a large part of the province. Showers also were again reported in Bihar and Chota Nagpur. In the south of the Bay the small storm was approaching the South Madras coast. On the 23rd a slight to moderate fall of pressure had occurred, while temperature and humidity were beginning to decrease at the majority of stations. Winds were also again becoming more northerly, and conditions were much more settled, so that practically no rain was reported on this day. In the south of the Bay the storm had approached quite close to the coast, but it was of small size and not very intense, though it gave north-easterly gales and very heavy rain along the South Madras coast. On the 24th, again, the barometric changes over Bengal were small, and the pressure distribution was nearly normal, winds were usually north-westerly and northerly, while temperature and humidity had again increased at many stations, and the sky was also moderately clouded over a large part of the province. The small storm from the Bay had passed westward across the south of the peninsula, and had entered the Arabian Sea, so that conditions in the Bay began to improve. On the 25th a decidedly rapid increase of pressure had occurred over Bengal, and pressure had become in considerable excess. Temperature was also above the normal at almost all stations by amounts increasing towards the west of the province, where the excess in the mean temperature was about  $6^{\circ}$  to  $7^{\circ}$ . Winds also were rather more variable than they had been, and a few rain showers were reported in North Bengal. In the south of the Bay the disturbed weather, due to the small storm, had to a great extent disappeared.

It will be thus seen that weather conditions generally during the week have been very decidedly disturbed by the existence of the two storms, one from the Arabian Sea and one in the Bay of Bengal. Hence, as is usual during disturbed weather, temperature and humidity have been decidedly high in Bengal, the sky has been also much more clouded than usual during the north-east monsoon months, and light showers have fallen in many districts. At the close of the week, however, the disturbed conditions due to the two storms were very rapidly passing away.

*Pressure.*—The mean pressure for the week has been in excess of the normal in all districts, the usual excess equalling about 0.03" to 0.05". The excess has usually been smallest at the extreme western stations.

*Temperature.*—Has been very decidedly above the normal throughout the week. The average excess for the whole province has equalled no less than  $2.7^{\circ}$ , and it has been largest in the western districts, where in Chota Nagpur it has been as much as  $4^{\circ}$ .

The actual temperatures registered during the week, and their variations from the usual temperature for the present season, are most clearly seen in the table below, where the average maximum, minimum, and mean temperatures for the week at nine typical stations in different districts of the province are compared with the normal values for the same period.

The main excess, it will be seen, has occurred in the night or minimum temperatures, which at such stations as Patna, Gaya, and Purnea have been about 7° higher than usual:—

Table showing the excess or defect of the actual mean temperature from the normal for the week ending 25th November 1893.

	Normal mean maximum temperature for the week ending 25th November.			Variation of actual mean from the normal.	Normal mean minimum temperature for the week ending 25th November.			Variation of actual mean from the normal.	Normal mean daily temperature for the week ending 25th November.			Variation of actual mean from the normal.
	Normal mean maximum temperature for the week ending 25th November.	Actual mean maximum temperature for the week ending 25th November 1893.			Normal mean minimum temperature for the week ending 25th November.	Actual mean minimum temperature for the week ending 25th November 1893.			Normal mean daily temperature for the week ending 25th November.	Actual mean daily temperature for the week ending 25th November 1893.		
Cuttack	81.7	85.8	+4.1		64.1	68.2	+4.1		74.4	77.0	+2.6	
Calcutta	80.4	81.6	+1.2		62.2	64.4	+2.2		71.3	73.0	+1.7	
Dacca	82.9	83.6	+0.7		64.4	65.0	+0.6		73.1	74.3	+1.2	
Bardwan	81.7	82.5	+0.8		61.4	65.3	+3.9		71.0	73.9	+2.9	
Patna	79.5	78.6	-0.9		59.8	64.1	+4.3		68.2	71.3	+3.1	
Gaya	80.9	81.7	+0.8		56.3	63.4	+7.1		65.7	72.6	+6.9	
Purnea	80.8	79.8	-1.0		56.3	62.6	+6.3		68.5	71.1	+2.6	
Hazariabad	75.5	77.6	+2.1		55.4	59.5	+4.1		65.6	68.6	+3.0	
Darjeeling	63.6	62.0	-1.6		46.3	46.4	+0.1		47.0	46.3	-0.7	

Rainfall.—The division receiving the largest fall has been South Bihar, which has averaged 0.11 inch. Smaller falls averaging only a few hundredths of an inch have also occurred in North Bihar and in East and North Bengal. The falls, however, have been of little practical importance.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 25th of November 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.							RAINFALL.								
	Highest observed during week.	Lowest observed during week.	Averages for week.				Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.	Since 16th Oct. 1893.	
			Of highest of each day.	Of lowest of each day.	Of mean for each day.	Average.		Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.				
Orissa	87.7	60.0	83.6	66.9	75.3	+2.2	Nil	0.31	-0.31	0.00	0.40	-0.40	0.15	1.38	5.43	4.00
South-west Bengal	87.3*	58.9*	82.3*	64.4*	73.4*	+1.7*	Nil	0.03	-0.03	0.00	0.10	-0.10	0.06	0.35	2.04	2.40
North Bengal	83.2	58.0	80.0	61.4	71.2	+1.8	0.03	0.01	+0.02	0.08	0.05	+0.03	0.05	0.17	2.98	1.80
East Bengal	84.6	58.0	82.2	64.2	73.2	+1.8	0.04	0.21	-0.17	0.08	0.21	-0.23	0.09	1.05	4.17	3.10
North Bihar	82.3	54.0	70.4	61.8	70.6	+2.5	0.04	0.01	+0.03	0.11	0.05	+0.06	0.17	0.07	5.25	1.00
South Bihar	83.2	56.8	80.1	62.9	71.5	+3.3	0.11	0.01	+0.10	0.23	0.05	+0.18	0.23	0.13	3.66	1.30
Chota Nagpur	85.2*	65.8*	70.4*	60.9*	70.2*	+4.0*	Nil	0.02	-0.02	0.00	0.10	-0.10	0.07	0.25	3.21	1.30

\* Rangaj and Dallongaj not included.

METEOROLOGICAL OFFICE, BENGAL,  
The 28th November 1893.

A. PEDLER,  
Meteorological Reporter to the Govt. of Bengal.



## Results of the Meteorological Observations taken at the Alipore Observatory from 19th to 25th November 1893.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
		°		Inches.	°	°	°	°	°	Inches	°	%			Inches.	
Nov.	19th	137.9	8.5	29.953	71.0	80.9	17.7	63.2	66.4	0.589	63.6	79	NNE and calm ...	31	Nil	Partially cloudy, $\Delta$ .
"	20th	134.0	9.5	.978	71.2	81.0	18.5	62.5	66.1	.576	63.0	77	Variable and calm	10	"	Clear, $\Delta$ .
"	21st	133.3	9.4	.967	71.9	82.1	19.4	62.7	67.2	.605	64.4	79	WNW and calm...	21	"	Clear, $\Delta$ .
"	22nd	134.2	8.8	30.006	73.1	82.0	16.6	65.4	68.6	.640	66.0	80	Variable and calm	8	"	Chiefly clear, $\Delta$ .
"	23rd	134.7	8.2	.001	73.1	81.9	16.6	65.3	69.2	.664	67.0	82	NNW and calm...	21	"	Partially cloudy, o, $\Delta$ , =.
"	24th	135.0	9.0	29.992	73.4	82.1	15.7	66.1	69.3	.660	66.9	81	NNW and calm ..	28	"	Partially cloudy, $\Delta$ , =.
"	25th	134.3	8.0	30.056	73.2	82.4	16.9	65.5	68.7	.643	66.1	79	N and calm	22	"	Partially cloudy, $\Delta$ .

The mean pressure of the seven days	...	...	...	...	Inches.
The average pressure of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	29.994
The total number of hours of bright sunshine	...	...	...	...	Hours,
The maximum possible number of hours of sunshine	...	...	...	...	61.4
					76.5
					°
The mean temperature of the seven days	...	...	...	...	72.4
The average temperature of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	72.5
The extreme variation of temperature	...	...	...	...	19.9
The maximum temperature	...	...	...	...	82.4
					Miles,
The highest velocity of the wind in one hour	...	...	...	...	5
					lbs.
The highest pressure of wind on one square foot	...	...	...	...	?
					%
The mean relative humidity	...	...	...	...	80
The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	71
					Inches.
The total fall of rain from 19th to 25th November 1893	...	...	...	...	Nil
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	0.01
The total fall from 1st January to 25th November 1893	...	...	...	...	85.23
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	...	65.15

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o, overcast;  $\Delta$ , dew; —, fog.

## Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 19th to 25th November 1893.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.						HYGROMETRY.			Rainfall, past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
November	19th	30.040	72.2	81.9	19.5	62.4	76.6	68.6	.593	63.8	64	Nil
"	20th	.048	73.2	83.4	20.5	62.9	78.6	68.6	.596	62.5	57	"
"	21st	.032	73.3	83.7	20.8	62.9	78.1	70.6	.649	66.4	68	"
"	22nd	.076	75.2	83.9	17.5	66.4	80.1	69.6	.584	63.4	57	"
"	23rd	.065	75.4	83.9	17.0	66.9	77.6	69.6	.617	65.0	65	"
"	24th	.055	74.7	82.9	16.5	66.4	78.6	70.6	.643	66.1	66	"
"	25th	.117	74.7	83.4	17.5	65.9	78.6	70.6	.643	66.1	66	"

The mean 10 A.M. pressure of the seven days ... .. Inches. 30.062

The mean temperature of the seven days ... .. 74.1

The extreme variation of temperature ... .. 21.5

The maximum temperature ... .. 83.9

The mean 10 A.M. relative humidity of the seven days ... .. % 63

The total fall of rain from 19th to 25th November 1893 ... .. Inch. Nil

The daily mean temperatures are the crude means of maximum and minimum temperatures.

C. LITTLE,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA.

To: 27th November 1893.

## CIRCULAR AND EASTERN CANALS.

Approximate return of traffic for the week ending Saturday, the 25th November 1893, as compared with the corresponding week of the previous year.

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 25TH NOVEMBER 1893.			WEEK ENDING SATURDAY, THE 26TH NOVEMBER 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy	281	34,250	438	248	28,890	469
Jute	268	1,31,925	2,167	410	1,97,800	3,398
Firewood	183	90,140	1,389	146	79,150	1,164
Other articles	1,118	2,21,116	3,660	1,138	2,57,350	4,212
Total	1,850	4,77,430	7,654	1,942	5,63,190	9,243





**IRRIGATION DEPARTMENT, BENGAL.**  
**IRRIGATION OPERATIONS FOR THE OFFICIAL YEAR 1893-94.**  
*Areas leased for irrigation up to end of September 1893.*

OFFICE.	District.	Canal.	Estimated full discharge.	Average discharge in month.	Discharge utilized.	Approximate area of land irrigated during the year up to the end of the month.	Approximate area of land under irrigation up to the same date last year.	DETAILS OF AREAS LEASED.										Rainfall, 1893-94.		Rainfall, 1892-93.		REMARKS.	
								Long-term leases.	Five years, kharif.	Kharif.	Rabi.	Sugar-cane.	Bladul.	Flot-weather.	Total.	GRAND TOTAL.	Inches.	During month.	Up to end of month.	Inches.	During month.		Up to end of month.
OOLAH.	Outback	Tuldanda, 1st reach	C. ft. 1,342	52	6,226	7,970	Acres. 5,978	113	Acres.	113	Acres.	113	Acres.	6,061	11,05	6,715	9,70	4,139	21 days discharging. 8 days discharging.				
		Ditto, 2nd "	C. ft. 766	80	3,554	27,321	Acres. 4,067	1,684	10	...	...	...	1,714	5,771	14,73	7,675	8,37	4,112					
		Kendrapara	C. ft. 1,067	687	45,304	48,774	Acres. 27,334	...	25	...	...	...	1,532	20,166	15,49	6,714	7,73	3,270					
		Gobri	C. ft. 372-52	42	1,766	2,010	Acres. 769	...	40	...	...	...	40	809	16,59	7,623	7,77	3,291					
		Do. Extension	C. ft. 646	20-97	1,766	3,574	Acres. 775	...	9	...	...	...	9	784	No gauge.	...	...	...					
		Pattamundi	C. ft. 885	203	7,616	12,423	Acres. 2,460	...	11	...	...	...	11	2,411	8,35	6,449	7,39	3,30					
		High Level, Range I	C. ft. 608	143-60	11,618	2,384	Acres. 1,474	...	23	1	...	...	24	1,771	14,29	6,136	12,64	4,630					
		Ditto, do. II	C. ft. 727-15	...	2,033	2,264	Acres. 1,200	...	52	...	...	...	52	1,872	...	...	...	...					
		Jampur Canal	C. ft. 700	13-66	1,311	791	Acres. 1,381	...	...	...	...	...	...	1,381	...	...	...	...					
		High Level, Range III	C. ft. 727-16	130-27	15,376	20,500	Acres. 16,471	...	181	...	...	...	181	16,632	13,16	6,533	15,73	4,832					
SOUTH-WESTERN.	Midnapore	Total	C. ft. 95,379	...	95,379	156,667	Acres. 62,742	1,684	2,055	217	...	...	3,966	66,708	...	...	...	...	21 days discharging. 8 days discharging.				
		Total of the corresponding period of last year	C. ft. 1,411	440	67,193	70,249	Acres. 155,900	1,712	2,568	253	...	...	4,538	159,733	...	...	...	...					
		Panchkura	C. ft. 522	21	1,358	7,040	Acres. 74,016	...	637	...	...	...	637	74,96	12,93	6,217	6,32	3,034					
		Tidal Reaches, Ranges I & II	C. ft. ...	...	461	835	Acres. 839	...	...	...	...	...	...	839	16,34	59,36	6,67	2,961					
		Total	C. ft. 69,042	...	69,042	87,124	Acres. 81,793	...	637	...	...	...	637	82,460	...	...	...	...					
		Total of the corresponding period of last year	C. ft. 4,342	...	18,056	18,057	Acres. 88,014	...	...	...	...	...	...	88,014	...	...	...	...					
		Western Main	C. ft. 1,325	137	64,754	60,888	Acres. 5,900	...	...	...	...	...	...	5,900	...	...	...	...					
		Buxar	C. ft. 971	431	64,754	55,670	Acres. 14,444	...	...	...	...	...	...	14,444	...	...	...	...					
		Arrah	C. ft. 2,060	519	184,456	99,991	Acres. 16,146	...	...	...	...	...	...	16,146	...	...	...	...					
		SOUTH.	Patna and Gaya.	Eastern Main	C. ft. ...	...	2,648	2,376	Acres. 577	...	...	...	...	...	...	577	...	...		...	...	21 days discharging. 8 days discharging.	
Patna	C. ft. ...			...	70,971	60,686	Acres. 13,815	...	...	...	...	...	...	13,815	...	...	...	...					
Total	C. ft. ...			...	291,814	241,922	Acres. 50,781	...	...	...	...	...	...	50,781	...	...	...	...					
Total of the corresponding period of last year	C. ft. ...			...	...	...	Acres. 77	...	...	...	...	...	...	77	...	...	...	...					
Grand Total	C. ft. ...			...	456,235	465,713	Acres. 11,616	...	2,712	217	...	...	...	76,767	...	...	...	...					
Grand Total of the corresponding period of last year	C. ft. ...			...	...	...	Acres. 181	...	2,568	257	...	...	...	81,325	...	...	...	...					
Grand Total	C. ft. ...			...	...	...	Acres. 181	...	2,568	257	...	...	...	81,325	...	...	...	...					
Grand Total of the corresponding period of last year	C. ft. ...			...	...	...	Acres. 181	...	2,568	257	...	...	...	81,325	...	...	...	...					
Grand Total	C. ft. ...			...	...	...	Acres. 181	...	2,568	257	...	...	...	81,325	...	...	...	...					
Grand Total of the corresponding period of last year	C. ft. ...			...	...	...	Acres. 181	...	2,568	257	...	...	...	81,325	...	...	...	...					

G. C. MACONCHY,  
*Under-Secy. to the Govt. of Bengal.*

CALCUTTA,  
*The 27th November 1893.*

## IRRIGATION DEPARTMENT,—BENGAL.

Statement showing heights over mean sea-level and low-water in the Rivers Ganges, Bhagirathi, Julari, and Brahmaputra, for the month of October 1893.

Date.	RIVER GANGES.										RIVER BHAGIRATHI.	RIVER JULARI.	RIVER BRAHMAPUTRA.
	Mitrapur.	Benares.	Pazur.	Dinapore.	Monghyr.	Rampur Bodla.	Goalundo.	Berhampore.	Saruganj.	Gowhaty.			
	86	134	49	177	97	287	110	381	94	471	90	120	
1st	23.75	29.97	20.50	21.50	18.47	18.47	18.47	18.47	18.47	18.47	18.47	18.47	18.47
2nd	21.38	27.60	18.75	24.10	15.93	15.93	15.93	15.93	15.93	15.93	15.93	15.93	15.93
3rd	20.42	26.64	15.00	23.45	15.70	15.70	15.70	15.70	15.70	15.70	15.70	15.70	15.70
4th	19.42	25.47	12.00	22.80	15.53	15.53	15.53	15.53	15.53	15.53	15.53	15.53	15.53
5th	18.42	24.44	10.00	22.10	15.37	15.37	15.37	15.37	15.37	15.37	15.37	15.37	15.37
6th	17.42	23.44	8.00	21.40	15.20	15.20	15.20	15.20	15.20	15.20	15.20	15.20	15.20
7th	16.42	22.44	6.00	20.70	15.03	15.03	15.03	15.03	15.03	15.03	15.03	15.03	15.03
8th	15.42	21.44	4.00	20.00	14.87	14.87	14.87	14.87	14.87	14.87	14.87	14.87	14.87
9th	14.42	20.44	2.00	19.30	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70
10th	13.42	19.44	0.00	18.60	14.53	14.53	14.53	14.53	14.53	14.53	14.53	14.53	14.53
11th	12.42	18.44		17.90	14.37	14.37	14.37	14.37	14.37	14.37	14.37	14.37	14.37
12th	11.42	17.44		17.20	14.20	14.20	14.20	14.20	14.20	14.20	14.20	14.20	14.20
13th	10.42	16.44		16.50	14.03	14.03	14.03	14.03	14.03	14.03	14.03	14.03	14.03
14th	9.42	15.44		15.80	13.87	13.87	13.87	13.87	13.87	13.87	13.87	13.87	13.87
15th	8.42	14.44		15.10	13.70	13.70	13.70	13.70	13.70	13.70	13.70	13.70	13.70
16th	7.42	13.44		14.40	13.53	13.53	13.53	13.53	13.53	13.53	13.53	13.53	13.53
17th	6.42	12.44		13.70	13.37	13.37	13.37	13.37	13.37	13.37	13.37	13.37	13.37
18th	5.42	11.44		13.00	13.20	13.20	13.20	13.20	13.20	13.20	13.20	13.20	13.20
19th	4.42	10.44		12.30	13.03	13.03	13.03	13.03	13.03	13.03	13.03	13.03	13.03
20th	3.42	9.44		11.60	12.87	12.87	12.87	12.87	12.87	12.87	12.87	12.87	12.87
21st	2.42	8.44		10.90	12.70	12.70	12.70	12.70	12.70	12.70	12.70	12.70	12.70
22nd	1.42	7.44		10.20	12.53	12.53	12.53	12.53	12.53	12.53	12.53	12.53	12.53
23rd	0.42	6.44		9.50	12.37	12.37	12.37	12.37	12.37	12.37	12.37	12.37	12.37
24th		5.44		8.80	12.20	12.20	12.20	12.20	12.20	12.20	12.20	12.20	12.20
25th		4.44		8.10	12.03	12.03	12.03	12.03	12.03	12.03	12.03	12.03	12.03
26th		3.44		7.40	11.87	11.87	11.87	11.87	11.87	11.87	11.87	11.87	11.87
27th		2.44		6.70	11.70	11.70	11.70	11.70	11.70	11.70	11.70	11.70	11.70
28th		1.44		6.00	11.53	11.53	11.53	11.53	11.53	11.53	11.53	11.53	11.53
29th		0.44		5.30	11.37	11.37	11.37	11.37	11.37	11.37	11.37	11.37	11.37
30th				4.60	11.20	11.20	11.20	11.20	11.20	11.20	11.20	11.20	11.20
31st				3.90	11.03	11.03	11.03	11.03	11.03	11.03	11.03	11.03	11.03

G. C. MACONCHY,  
Under-Secy. to the Govt. of Bengal.CALCUTTA,  
The 27th November 1893.

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 18th November 1893, on 1,610½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	273,744	Rs. A. P. 3,43,552 1 0	Mds. S. 25,00,598 0	Rs. A. P. 6,15,784 1 0	Rs. A. P. 15,594 14 0	Rs. A. P. 9,80,961 0 0	78,187	98,787	1,77,974
Or per mile of railway ...	.....	217 0 9	.....	383 5 8	9 10 11	609 1 4	.....	.....	.....
For previous 10½ weeks of half-year ...	5,405,932	58,03,142 3 0	4,56,40,223 30	1,00,99,077 11 0	2,00,017 8 0	1,61,92,837 6 0	1,442,613½	1,876,327½	3,318,940½
Total for 20½ weeks ...	5,679,676	61,52,604 4 0	4,51,40,821 30	1,07,15,461 12 0	3,05,613 0 0	1,71,73,768 6 0	1,540,800½	1,970,654½	3,510,894½
COMPARISON.									
Total for corresponding week of previous year ...	261,493	3,48,679 0 0	26,12,917 20	6,59,220 4 1	21,364 2 0	10,29,153 7 7	78,868	102,563	1,81,431
Per mile of railway corresponding week of previous year ...	.....	216 7 1	.....	409 5 2	13 4 2	639 0 5	.....	.....	.....
Total for corresponding 20½ weeks of previous year ...	5,302,135	55,99,018 2 4	4,07,62,804 20	1,04,43,701 12 1	3,34,681 2 5	1,63,78,301 0 10	1,514,587	1,872,921	3,387,508

## TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 18th November 1893, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	19,323	Rs. A. P. 4,674 0 0	Mds. S. 8,925 20	Rs. A. P. 405 14 0	Rs. A. P. 13 0 0	Rs. A. P. 5,092 14 0	914	84	998
Or per mile of railway ...	.....	210 1 1	.....	18 3 11	0 9 4	228 14 4	.....	.....	.....
For previous 10½ weeks of half-year ...	*333,826	*61,397 13 0	*1,72,733 30	*75,694 9 0	*387 0 0	*87,479 6 0	17,118	1,470½	18,588½
Total for 20½ weeks ...	333,164	66,071 13 0	1,81,659 10	6,100 7 0	400 0 0	92,872 4 0	18,042	1,524½	19,566½
COMPARISON.									
Total for corresponding week of previous year ...	10,360½	4,790 10 5	11,219 10	558 1 0	18 15 6	5,367 10 11	858	110	968
Per mile of railway corresponding week of previous year ...	.....	215 4 11	.....	25 1 4	0 13 8	241 3 11	.....	.....	.....
Total for corresponding 20½ weeks of previous year ...	383,551½	94,317 13 7	1,41,378 10	6,294 10 0	260 12 6	1,00,873 4 1	18,277	1,420	19,697

\* Added number of passengers 1,023 and Rs. 143 }  
 † Do. maunds 673 and " 19 } on account of difference between the approximate and audited figures for the week ended 7th October 1893.  
 ‡ Deducted " 33 }

## DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for week ended 18th November 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	*18,693	Rs. A. P. *20,491 5 0	Mds. S. 68,450 30	Rs. A. P. 10,160 6 0	Rs. A. P. 40 0 0	Rs. A. P. 30,691 11 0	5,983	3,228	9,161
Or per mile of railway ...	.....	126 16 4	.....	62 15 3	0 4 0	190 2 7	.....	.....	.....
For previous 10½ weeks of half-year ...	†374,422	†2,77,433 2 0	†11,10,701 0	†1,47,527 9 0	†743 0 0	†4,25,703 11 0	119,583	54,849½	174,431½
Total for 20½ weeks ...	393,115	2,97,924 7 0	11,79,151 30	1,57,687 15 0	782 0 0	4,56,304 6 0	125,516	58,070½	183,586½
COMPARISON.									
Total for corresponding week of previous year ...	17,355	17,478-12 7	47,106 30	11,189 9 0	95 3 0	28,763 9 1	6,445	3,380	10,025
Per mile of railway corresponding week of previous year ...	.....	108 4 9	.....	69 5 3	0 9 5	178 3 5	.....	.....	.....
Total for corresponding 20½ weeks of previous year ...	340,446	2,60,314 7 6	8,67,142 30	1,44,085 6 6	2,079 7 3	4,15,479 5 3	131,634	50,304	181,938

\* The increase chiefly occurred at Kalka and is apparently due to return of His Excellency the Viceroy's suite from Simla.  
 † Added number of passengers 4,533 and Rs. 1,942 }  
 ‡ Do. maunds 212 and deducted " 169 } on account of difference between the approximate and audited figures for the week ended 7th October 1893.  
 † Do. " 4 }

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K.-D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for the week ended 18th November 1893, on 778 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	180,450	97,440 0 0	8,18,040 0	1,70,180 0 0	14,860 0 0	2,82,480 0 0	28,038	80,658	67,696
Or per mile of railway ...	233	125 0 0	1,048 0	219 0 0	† 1 0 0	† 345 0 0	...	...	...
For previous 19 weeks of half-year* ...	3,129,361	14,32,020 0 0	1,66,68,153 0	33,71,043 0 0	3,30,567 0 0	51,34,530 0 0	538,922	678,006	1,214,928
Total for 20 weeks ...	3,309,814	15,30,360 0 0	1,74,83,233 0	35,41,233 0 0	3,45,427 0 0	54,17,010 0 0	566,964	715,664	1,282,618
COMPARISON.									
Total for corresponding week of previous year ...	162,840	77,014 0 0	7,78,876 0	2,15,966 0 0	20,613 0 0	3,13,493 0 0	26,946	48,696	75,642
Per mile of railway corresponding week of previous year ...	197	99 0 0	1,004 0	278 0 0	† 1 0 0	† 378 0 0	...	...	...
Total to corresponding date of previous year ...	3,211,439	14,24,605 0 0	1,48,56,832 0	35,02,949 0 0	3,57,331 0 0	53,74,885 0 0	550,639	708,240	1,258,879

\* Audited up to week ending 30th September 1893.

† Excluding steamer earnings.

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for the week ended 18th November 1893, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	28,370	11,070 0 0	41,729 0	3,200 0 0	120 0 0	14,390 0 0	3,678	1,994	5,672
Or per mile of railway ...	227	88 0 0	333 0	26 0 0	1 0 0	115 0 0	...	...	...
For previous 19 weeks of half-year* ...	590,498	1,95,374 0 0	10,06,183 0	87,071 0 0	2,001 0 0	2,85,340 0 0	70,523	38,302	108,825
Total for 20 weeks ...	618,778	2,06,444 0 0	11,08,103 0	90,271 0 0	3,021 0 0	2,99,730 0 0	74,201	40,296	114,497
COMPARISON.									
Total for corresponding week of previous year ...	27,565	11,253 0 0	58,106 0	4,908 0 0	188 0 0	16,370 0 0	3,678	1,994	5,672
Per mile of railway corresponding week of previous year ...	221	90 0 0	465 0	39 0 0	2 0 0	131 0 0	...	...	...
Total to corresponding date of previous year ...	615,271	2,04,828 0 0	11,15,453 0	93,373 0 0	3,007 0 0	3,01,800 0 0	74,506	42,905	117,411

\* Audited up to week ending 30th September 1893.

## DACCA STATE RAILWAY.

Approximate Return of Traffic for the week ended 18th November 1893, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	20,180	7,700 0 0	55,007 0	5,690 0 0	120 0 0	12,910 0 0	2,461	1,861	4,342
Or per mile of railway ...	235	90 0 0	640 0	66 0 0	1 0 0	150 0 0	...	...	...
For previous 19 weeks of half-year* ...	327,197	1,12,567 0 0	6,48,133 0	51,020 0 0	3,281 0 0	1,66,877 0 0	48,033	20,107	68,140
Total for 20 weeks ...	347,377	1,20,267 0 0	7,03,133 0	56,119 0 0	3,401 0 0	1,70,787 0 0	50,514	21,968	72,482
COMPARISON.									
Total for corresponding week of previous year ...	17,777	5,766 0 0	35,040 0	3,542 0 0	114 0 0	9,422 0 0	2,527	1,182	3,709
Per mile of railway corresponding week of previous year ...	207	67 0 0	407 0	41 0 0	2 0 0	110 0 0	...	...	...
Total to corresponding date of previous year ...	331,143	1,07,901 0 0	6,60,810 0	42,301 0 0	4,236 0 0	1,54,338 0 0	51,227	* 15,198	66,425

\* Audited up to week ending 30th September 1893.



## BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIBHUT STATE RAILWAY.)

*Approximate return of traffic for the week ending 11th November 1893, on 756 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week on 756 miles open ... ..	77,810	Rs. (a) 30,830	Mds. 3,09,640	Rs. 44,720	Rs. 10,070	Rs. 85,620	18,564	14,761	28,785
Or per mile of railway ... ..	102'03	40'78	409'58	59'13	13'32	113'25	.....	.....	.....
For previous 18½ weeks of half-year (b) ... ..	1,535,288	6,16,339	43,70,508	5,63,714	1,57,000	13,37,844	284,128	235,403	519,621
Total for 19½ weeks ... ..	1,673,098	6,47,169	46,80,148	6,08,634	1,67,070	14,23,464	298,092	250,254	548,346
COMPARISON.									
Total for corresponding week of previous year on 755 miles open ... ..	188,682	58,314	3,52,594	48,833	17,409	1,24,636	14,438	14,172	28,610
Per mile of corresponding week of previous year ... ..	183'62	77'24	467'61	64'70	23'14	165'08	.....	.....	.....
Total to corresponding date of previous year ... ..	1,753,290	6,92,927	49,78,204	6,51,512	1,77,629	15,24,907	296,422	288,691	556,013

(a) Decrease in coaching traffic is due to fairs having been held at Ajodhya and Sonapore in the corresponding week of last year.  
 (b) Includes audited figures up to 30th September 1893.

## BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIBHUT STATE RAILWAY.)

*Approximate Return of Traffic for the week ending 18th November 1893, on 756 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the period on 756 miles open ... ..	91,350	Rs. 59,813	Mds. 3,91,020	Rs. 49,920	Rs. 11,450	Rs. 91,680	15,075	13,791	28,866
Or per mile of railway ... ..	121'63	62'00	384'95	54'13	15'14	121'27	.....	.....	.....
For previous 19½ weeks of half-year (a) ... ..	1,678,189	6,52,207	43,90,070	6,07,731	1,68,540	14,28,481	295,520	253,030	548,550
Total for 20½ weeks ... ..	1,770,139	6,91,517	49,81,090	6,18,651	1,79,990	15,20,161	310,595	266,811	577,406
COMPARISON.									
Total for corresponding period of previous year on 755 miles open ... ..	88,612	31,003	2,93,175	50,334	11,633	98,570	12,871	17,650	30,521
Per mile of corresponding week of previous year ... ..	110'61	48'48	383'31	66'67	15'41	130'56	.....	.....	.....
Total to corresponding date of previous year ... ..	1,841,332	7,29,530	52,71,379	7,04,846	1,89,161	16,23,537	279,293	306,241	585,534

(a) Includes audited figures up to 7th October 1893.





# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, DECEMBER 6, 1893.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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### THE CANAL REVENUE REPORTS FOR 1892-93.

No. 12847.A.

GOVERNMENT OF BENGAL—IRRIGATION DEPARTMENT.

Accounts.

*Dated Calcutta, the 28th November 1893.*

#### RESOLUTION.

READ—

The Canal Revenue Reports for 1892-93, and the Chief Engineer's note on the same.

THERE are in Bengal four canal systems which are classed as Major Works. Three of these systems were mainly intended for irrigation, whilst the fourth, the Hijili Tidal Canal, is a purely navigation canal. The Sone and Midnapore Canals are practically complete; the Hijili Canal is also finished, except two works, remodelling the Kalinagar lock and the pipe across the Russulpur river, which are still under consideration. As regards the Orissa Canals, the extension of the distributary system and the completion of the drainage and protective works in connection with them are still in progress. It is expected that by the 1st of July 1894, the new distributaries will be in a state admitting of their being used for irrigation, and that by the close of that year they will be practically finished. The minor works of which Capital and Revenue accounts are kept by the Calcutta and Eastern Canals, the Orissa Coast Canal and the Saran Canals are finished works. There are other minor works for which Revenue accounts only or no separate Capital or Revenue accounts are kept.

2. The total length of canals in Bengal is 916 miles, of which 495½ miles are for irrigation and navigation, 242½ miles are for irrigation only, and 178 miles are navigation channels from which there is no irrigation. There are in addition 2,431½ miles of irrigating distributary channels. The area at present irrigable is 1,492,484 acres, of which 666,490 acres were irrigated during the year. The canals were during the year used by 219,946 boats carrying cargo valued at Rs. 13,69,79,995.

3. The canals of which Capital and Revenue accounts are kept have cost Rs. 7,41,72,616 to construct. Of this sum Rs. 6,07,93,546\* has been provided from loan funds, Rs. 1,05,12,677 from Provincial revenues, and Rs. 8,66,000 contributed by the Government of India from the Famine Relief and Insurance Fund.

The outlay on each canal chargeable to Capital account during the last two years and up to date is shown in the table following:—

WORKS.	DURING 1891-92.			DURING 1892-93.			TO END OF 1892-93.		
	Direct charges.	Indirect charges.	Total.	Direct charges.	Indirect charges.	Total.	Direct charges.	Indirect charges.	Total.
1	2	3	4	5	6	7	8	9	10
<i>Major Irrigation Works.</i>	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Orissa Canals ...	3,88,740	8,042	3,96,782	3,63,216	8,604	3,71,819	2,49,60,881	5,68,834	2,55,32,715
Midnapore Canal ...	14,400	...	14,400	...	...	...	82,68,711	1,81,133	84,12,844
Hijili Tidal Canal ...	2,34,918	6,900	2,41,818	38,319	357	38,676	22,71,024	66,865	23,27,889
Sone Canals ...	2,04,096	5,191	2,09,287	56,252	2,580	58,832	2,57,88,346	9,13,151	2,67,01,477
Total ...	8,42,225	20,141	8,62,366	4,57,786	11,541	4,69,327	6,12,87,983	17,16,988	6,30,04,925
<i>Minor Works and Navigation.</i>									
Tirhut Project ...	...	...	...	...	...	...	5,31,425	74,660	6,06,075
Damuda Project ...	(—)1,200	...	(—)1,200	(—)1,200	...	(—)1,200	1,46,341	16,249	1,62,590
Calcutta and Eastern Canals ...	(—)10,320	2	(—)10,327	72,923	1,856	74,279	82,36,460	62,383	83,07,849
Orissa Coast Canal ...	3,940	(—)65	3,875	2,460	28	2,488	42,41,469	1,02,975	43,44,434
Baran Canals ...	...	...	...	...	...	...	6,60,570	27,183	6,87,753
Total ...	(—)7,550	(—)63	(—)7,652	74,188	1,878	76,066	1,08,84,261	2,83,430	1,11,67,691
GRAND TOTAL	8,34,636	20,078	8,54,714	5,31,969	12,010	5,44,888	7,21,72,223	20,00,393	7,41,72,616

\* Exclusive of indirect charges amounting to Rs. 20,00,393.

4. The receipts from and working expenses of the four canal systems classed as Major Works are given in the statement following:—

WORKS.	Receipts, less refunds of revenue.	WORKING EXPENSES.			Not revenue.
		Direct charges.	Indirect charges.	Total.	
1	2	3	4	5	6
	Rs.	Rs.	Rs.	Rs.	Rs.
Orissa Canals ...	4,97,375	4,75,224	30,283	5,05,607	(—)8,132
Midnapore Canal ...	2,80,001	1,86,401	9,149	1,95,650	(+)84,451
Hijili Tidal Canal ...	53,390	31,704	1,385	33,089	(+)20,301
Sone Canals ...	10,52,581	6,97,691	53,656	7,51,247	(+)8,01,834
Total ...	18,83,347	13,91,020	94,373	14,85,393	3,97,954

The net revenue for the year, after providing for all charges, direct and indirect, but excluding interest, has been Rs. 3,97,954 against Rs. 1,60,673 for the year preceding. The interest charges payable from Provincial revenues amounted to Rs. 24,42,363.

The net revenue is the highest yet earned, that most nearly approaching being the year 1885-86, when it amounted to Rs. 3,75,981. With the exception of that year the revenue has never previously exceeded the amount realized in 1891-92, viz., Rs. 1,60,673.

5. The areas irrigated during the past five years are shown in the table below :—

YEAR.	ORISSA CANALS.				MIDNAPORE CANAL.				SONE CANALS.				TOTAL.			
	Kharif.	Rabi.	Perennial.	Total.	Kharif.	Rabi.	Perennial.	Total.	Kharif including five-year and long-term leases.	Rabi.	Perennial and hot weather.	Total.	Kharif.	Rabi.	Perennial.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1888-89	Acres. 156,310	Acres. 2,779	Acres. 104	Acres. 159,289	Acres. 68,408	Acres. 3,360	...	Acres. *69,777	Acres. 281,402	Acres. 69,817	Acres. 4,600	Acres. 355,909	Acres. 504,810	Acres. 75,030	Acres. 4,704	Acres. 584,578
1889-90	180,568	5,807	102	186,527	68,370	440	...	*68,810	270,012	29,396	5,004	305,283	528,680	66,879	5,168	580,719
1890-91	175,829	4,350	220	180,399	82,002	...	...	*69,032	255,980	20,032	4,408	281,014	518,511	24,852	4,622	543,815
1891-92	173,463	3,943	289	177,685	85,905	68	...	*68,973	286,210	177,306	1,190	474,723	554,877	181,319	1,485	736,881
1892-93	159,025	2,594	333	161,952	91,217	...	...	*91,217	274,829	120,106	0,727	410,761	524,061	128,780	10,080	662,930

\* Exclusive of lands surreptitiously irrigated for which leases were granted in subsequent years.

Owing to the more favourable character of the season the area irrigated was less than in the year preceding, but it is still greatly in excess of the average. The decrease was wholly in season or yearly leases, the area under long leases having been 489,512 acres in 1891-92, and 519,666 acres in 1892-93. The main decrease has been in *rabi* irrigation from the Sone Canals. Water is only in extensive demand for that crop when the rains fail altogether, which seldom happens. The demand for water for rice irrigation is, however, rapidly, more especially in Bihar, becoming independent of the character of the season, the increased yield of the crops where water can be supplied, whenever required, more than compensating for the charges levied. As a consequence of the lesser area under irrigation, the water-rates due on crops irrigated during the year, fell from 13,77,864 to 11,95,358.

6. Allusion was made in last year's resolution to changes which had been made in the administrative arrangements for collections. During the year under review the collections from the Sone and Orissa Canals were managed by a Deputy Collector in charge of a Revenue Division working directly under the Superintending Engineer, and this plan has been introduced as regards the Midnapore Canal collections from the 1st of April 1893. The following table, which extends from 1885-86, shows that the improvement in the collections which was last year noticed has been more than maintained:—

Y <small>EAR</small> .	Balance at beginning of year.	Balance at end of year.	Remissions, including cancelled demand statements and extraordinary remissions.	Irrecoverable items.
1	2	3	4	5
	Rs.	Rs.	Rs.	Rs.
1885-86	8,84,289	5,33,175	1,41,162	41,229
1886-87	5,33,175	3,69,789	57,375	22,612
1887-88	3,69,789	5,59,883	32,356	19,796
1888-89	5,59,883	5,79,987	42,666	14,074
1889-90	5,79,987	5,09,188	80,282	20,592
1890-91	5,09,188	4,72,113	48,674	16,476
1891-92	4,72,113	4,04,120	38,421	12,126
1892-93	4,04,120	2,26,174	61,576	11,168

As regards the Orissa Canals, the Superintending Engineer observes:

"Babu Jagdam Sahai, the Deputy Collector in charge of the Revenue Division, deserves the greatest credit for the immense improvement in the collections; this has, to my knowledge, only been effected by detailed and constant personal attention."

Both the Commissioner of Patna and the Superintending Engineer state that they consider the result of the collections very creditable to the Deputy Collector, Babu Saroda Prosaudd Chatterjee, and the staff working under him. The remissions during the year have been swollen by Rs. 9,107, which was embezzled by tahsildars in the Sone Circle and has this year been finally written off, and by Rs. 38,851 remitted by the Deputy Revenue Superintendent of the Orissa Canals, partly in accordance with rule and partly under circumstances which were, when reported, unfavourably noticed by Government. Apart from these items the sums remitted and written off as irrecoverable compare favourably with previous years, except in the case of remissions by the Executive Engineers of the Sone Canals, which indicate a slight deterioration in the accuracy of the assessments.

7. The collections under the head "Navigation" were Rs. 30,193 less than in the year preceding, but otherwise considerably in excess of an average year. Particulars showing the collections from each Canal will be found in the table following:—

YEAR.	Orissa Canals.	Madnapore Canal.	Hijili Tidal Canal.	Sone Canals.	Total.	Miles open.	Tollage per mile.
1	2	3	4	5	6	7	8
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1887-88	66,628	1,26,574	40,406	50,984	2,84,592	490	580.7
1888-89	69,830	1,46,780	53,910	52,162	3,22,682	49 ½	649.9
1889-90	78,032	1,45,356	40,338	61,189	31,4,922	496 ½	634.3
1890-91	1,06,961	1,10,830	27,146	56,593	3,01,529	496 ½	607.3
1891-92	1,20,761	1,32,572	36,348	57,339	3,47,020	524 ½	662.2
1892-93	1,00,603	1,14,141	52,180	49,996	3,16,827	524 ½	604.3

8. Turning to the canal systems separately it was last year noticed that financially a decided improvement had been made as regards the return from the Orissa Canals. In the preceding five years the average deficit had exceeded two lakhs of rupees yearly. In 1891-92 the excess of working expenses above revenue was Rs. 52,164, whilst in 1892-93 the deficit has been reduced to Rs. 8,132. This improvement has been obtained in spite of increased working expenses caused by repairs to damages caused to the canals by the extraordinary flood in the river Mahanadi of July 1892, and by the cyclone of October of the same year. The working expenses amounted to Rs. 5,05,507, which is greatly in excess of the expenditure of the previous year, Rs. 4,23,086, and of the average of the five years preceding, Rs. 4,70,505. As already noticed, the arrear balance has been reduced from Rs. 2,33,704 on the 1st of April 1892, to Rs. 89,816 on the 1st of April 1893. This improvement was mainly effected by arranging that certificate cases should be more promptly disposed of. The number of cases pending at the commencement of the year was 4,723, which, with 7,991 instituted during its currency, gives a total of 12,714. Of these 11,183 were disposed of by being fully satisfied and 552 cancelled. Of the cancelled certificates 70 only were filed during the year; the remainder were old cases of which even the records were difficult to trace. The balance remaining at the close of the year was 979 only. Babu Jagdam Sahai remarks:

"I think it worth stating here that although these numerous old cases were disposed of during the year, there was not a single instance in which any defaulter was sent to jail or his immovable property sold."

The certificate office was inspected both by the Collector of Cuttack and the Commissioner of Orissa, the latter, Mr. Toynbee, remarking:

"On the whole I am much pleased with the Deputy Collector's work. He has done wonders since he joined, and I see on all sides ample evidence of order, method, and business."

The Lieutenant-Governor trusts that, now the outstanding balances have mostly been collected, there will be a marked diminution in the number of certificate cases. Progress has been made more especially in the Brahmini-Byturni Division in executing new leases from which non-irrigable lands and lands requiring irrigation occasionally only have been excluded; but until all the old leases in which these areas are determined by an annual enquiry, fall in, there will remain the fluctuating demand which entails so much annoyance to the cultivator and labour to the staff. The Lieutenant-Governor notices with pleasure that there was practically no unauthorized irrigation, and that a good beginning has been made in the way of a more systematic regulation and distribution of the water-supply of the canals. The heavy working expenses, which were mainly due to breaches caused by a flood in the river Mahanadi, equal to the highest on record, were unavoidable, and it is noticed that the opportunity has been taken to raise the canal flood banks where necessary.

9. The chief feature in the year's working of the Midnapore Canal was the excessive demand for water in the latter part of the season. The average discharge of the Cossye river during October was 700 cubic feet per second only, and on the 23rd of that month it fell to 138 cubic feet per second. The area irrigated, 91,217 acres, was in excess of any year since 1883-84. The Superintending Engineer states that, except a few acres on high lands, which it was impossible to reach, the whole of the leased area received from two to four waterings during the season. The outturn on most distributaries was magnificent, whilst the unirrigated crops to the south and west of Midnapore almost entirely failed. The result of these good crops and high prices was that the number of certificates filed for the recovery of water-rates fell from 3,428 in 1891-92 to 1,223 in 1892-93, and the balance pending at the close of the year from 449 to 356. The balance of unrealized arrears due at the close of the year was, considering the demand high, Rs. 48,567, though it compares favourably with that due at the commencement of the year, Rs. 58,972. It has since been materially reduced. The net revenue was Rs. 84,451 in 1892-93, against Rs. 18,371 in 1891-92, chiefly owing to the working expenses having fallen from Rs. 2,66,326 to Rs. 1,95,550. The diminution in the working expenses was chiefly due to the thorough repairs carried out in 1891-92, when there was a long closure, but some part of it is attributable to the close supervision exercised by the Executive Engineer.

10. The Hijili Tidal Canal is in the same condition as last year, no steps having been taken towards constructing the pipe across the Russulpur river or the new lock at Kalinagar, the two works included in the remodelling scheme which are yet incomplete. It is probable that an extra supply channel will be substituted for the pipe, and the possibility of making alterations in the existing lock at Kalinagar in place of building a new one is now under investigation. The further deterioration of the crossing of the Russulpur river appears to have been arrested by the Balliaghai drain, which is now regularly used as a navigation canal. The net revenue was Rs. 20,301 against a deficit of Rs. 13,768 in 1891-92, an improvement due to the canal not having been closed during the year, there being consequently an increase in the revenue and a decrease in the working expenses.

11. The net revenue of the Sone Canals was Rs. 3,01,334 in 1892-93 against Rs. 2,08,234 in 1891-92, a result due to the collections on account of the rabi irrigation of the previous year. The area irrigated was 410,761 acres in the year under review against 474,723 acres in that previous, and the net revenue calculated on earnings was Rs. 1,48,422 against Rs. 3,78,516 in the year preceding. There is still a steady increase in the area under long lease, as will be apparent from the statement following, which shows the area under long and short leases during each of the last five years:—

		1888-89.	1889-90.	1890 91.	1891-92.	1892-93.
Long leases	...	200,102	224,268	223,556	234,791	271,966
Short leases	...	155,807	81,014	57,458	239,932	138,795
		—	—	—	—	—
Total	...	355,909	305,282	281,014	474,723	410,761
		—	—	—	—	—

The main reason of the increase in the working expenses from Rs. 6,97,840 in 1891-92 to Rs. 7,51,247 in 1892-93 was the silt clearance of the lower reaches of the Arrah Canal, which is only carried out once in five or six years, but there were other contributing causes amongst them, being the payment during the year of the fees due to headmen on the large area irrigated during the previous year. There has been a satisfactory decrease in the number of certificate cases from 3,178 in 1891-92 to 2,903 in 1892-93. There were 153 cases pending at the close of the year, of which all but eight had been disposed of by the 1st of September. The Commissioner of Patna remarks that—

“This is very satisfactory, as out of a total demand of Rs. 10,62,176 for the year, coercive measures had to be adopted for the realization of only Rs. 34,272.”

Last year the Lieutenant-Governor expressed some dissatisfaction with the late date on which the demand statements, more especially for the rabi crops, reached the Deputy Collector. It is exceedingly unsatisfactory to learn that in 1892-93, so far from there being any improvement, the demand statements were forwarded to that officer at a later period of the year, though the area irrigated was much less. In 1891-92 about one-third of the rabi demand statements were forwarded for collection before the close of the year. In 1892-93 this proportion had fallen to one-eighth. It has already been remarked that the remissions on account of inaccurate assessments were slightly in excess of those granted in 1891-92, and altogether His Honour can come to no other conclusion than that the Divisional Engineers failed to exercise that care and energy which is indispensable if accurate demand statements are to be supplied to the collecting officers at the earliest possible date. The falling off is inconsiderable, but it is necessary that remedial measures should at once be taken, it being borne in mind that though promptitude is highly desirable, accuracy is of even more importance. The Lieutenant-Governor is glad to see that Mr. Buckley is able to report an improvement in the arrangements for distributing water and also in the state of the village channels.

12. The yearly increase in the area under long lease for the Sone Canals has already been noticed, as also the fact that the demand for water in the rice season is rapidly becoming independent of the rainfall. The Superintending Engineer gives the following table based for the year 1892-93 on 87 experiments, from which it appears that the yield of irrigated land cultivated with rice shows a tendency to produce heavier crops the greater the number of years it is continuously irrigated:—

*Weight of grain from “good” rice crops irrigated with canal water.*

	1892-93.		1891-92.		1890-91.		1889-90.	
	Mds.	Srs.	Mds.	Srs.	Mds.	Srs.	Mds.	Srs.
Sone Circle average ...	37	4	36	14	32	2	31	19

Mr. Buckley makes the following remarks:—

“It is rather remarkable that the average results of “good” rice crops show a steady improvement year by year, and this appears to suggest that one result of irrigation with the silty waters of the Sone, instead of the clear water from ahars and from rainfall, is to improve the soil and thus produce superior crops. It would be straining these figures too far to say that they prove this proposition, but they are certainly evidence in that direction. The fact that silt is valuable to the fields needs no proof; the magnificent crops which have been produced in Egypt for 6,000 years or more, with no deterioration of the soil, have established that fact. It is known that irrigation from the Sone Canals insures the rice crop in bad years from failure; it did so in 1888-89: it is known that the irrigation with canal water of a field not previously watered by the canals increases the outturn. If it is also true that continuous irrigation for a series of years produces a further increase of crop by improvement of the soil to even half the extent which the above table indicates, the value to the landowner and raiyat of canal irrigation is very vastly in excess of the water-rate paid by the latter. It was asserted at the time of the Sone Canals Commission in 1887-88 that not only was the crop produced by the aid of canal water inferior, but that the longer the land was irrigated, the worse the crop became. The facts which have been collected from these crop experiments are strong evidence that these statements were false, and stronger evidence is found in the fact that the time has already come when the canals in a period of even ordinary demand are not able to satisfy the demands of the people for rice irrigation.”



13. The table following gives the financial results for the year of the canals classed as minor works :—

PARTICULARS.	MINOR WORKS AND NAVIGATION.											
	Saran Canals.		Calcutta and Eastern Canals.		Orissa Coast Canal.		Nadia Rivers.		Eden Canal.		Madhuban Canal.	
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
1	2	3	4	5	6	7	8	9	10	11	12	13
<b>RECEIPTS.</b>	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Water-rates ...	15,785	1,492	5 15 125	4,04 718	60 001	61 832	1,02,718	1,05,480	9,440	30,310	..	..
Navigation ...	40	94	10 218	15,128	2 072	9 140	247	168	738	803	92	168
Miscellaneous												
Total	15 831	1,586	5 25,343	4,80,246	62,123	64 981	1,02 965	1,05,598	10,158	31,113	92	168
Less—Refunds of revenue			124	170	61	47	228	14	39	70		
Total receipts	15,831	1 580	5 25,219	4 80 116	62 057	64 934	1 02 737	1 05 620	10,119	31,043	92	168
<b>WORKING EXPENSES</b>												
<i>Direct charges.</i>												
I.—Maintenance and repairs—												
Works (extraneous and im-			26 280	(-) 28 408					4	( ) 148		
provements)	0,021	0,517	1,72 457	1,05,2 3	48 809	45 490	62,704	68 763	14,023	20,478	7,300	7,093
Repairs	9,710	1,772	05 797	40 764	17,100	17 298	22 704	22,299	0,641	10,078	3,008	2,813
Establishment including	(-) 175	215	12 541	13,17	8,404	0 003	1,390	1 644	495	652	203	120
direction and accounts)							(-) 8,015	1 000				
Tools and plant												
Suspense account												
Total	12,518	18,502	2 87,014	1,90 686	69,182	69 419	85,723	1,00,773	20,001	37 160	10 506	10 032
II.—Revenue management—												
Irrigation establishment			41,170	48 945	6,194	1 556	23,194	22 292				
Navigation do												
Total			41 560	30,935	6,194	1 856	23 134	22 282				
Total direct charges	12 538	18 502	2 87 405	2 30 621	75,296	71 275	1 08 857	1 23,054	20 681	37 160	10,506	10 032
<i>Indirect charges</i>												
Leave and pension allowances	519	528	14 996	13,556	3,253	3 377	6,417	7 221				
Total indirect charges	519	528	14 996	13 556	3 253	3 377	6,417	7 221				
Total working expenses	13 057	14 030	2 43,999	2 62 177	78,549	74 652	1 13 274	1,30 275	27,061	37 160	10 506	10,032
Net revenue	2,774	(-) 12 504	1,81,820	2,27,917	(-) 16,492	(-) 14 715	78,463	35,345	(-) 15,544	6,117	( ) 10,414	(-) 9,860

14. The irrigation canals classed as minor works are the Saran, Eden, and Madhuban Canals.

The Saran Canals have never been satisfactory, and orders to close them were issued in the latter part of the year 1890. In March 1891 an agreement was entered into with the proprietors of the Sadowa and Moniara Indigo Concerns, under which they were kept open for the year 1891-92 on the basis of the proprietors paying a sum equal to their working expenses, omitting establishment charges. This agreement, slightly modified, was continued during 1892-93. There have been difficulties connected with the agreement, and it will not improbably be necessary to close the canals on the 1st of April 1894.

The Eden Canal was constructed for the purpose of supplying the districts of Hooghly and Burdwan with wholesome water for drinking and domestic purposes. The water-supply of the town of Burdwan is derived from it. The canal has frequently in years of scarcity been used for the purpose of saving crops, comparatively small sums being received by private agreement as water-rates. The Government of India in 1875 absolutely refused to permit the canal to be carried out as an irrigation work unless arrangements were made to recover an adequate return in the way of water-rates.

It was not found possible to devise any scheme under which a sufficient return could be obtained, and the project as an irrigation work was therefore dropped.

In April 1882 an estimate amounting to Rs. 8,38,533 was sanctioned for constructing the canal with reference to its utility as a work for supplying water to the silted-up river channels in the districts named. In order to secure to Government power to prevent the channels being obstructed, they were declared under section 8 of Act III (B.C.) of 1876, but the regularity of the proceedings is contested by some of the landholders interested. As regards the

masonry works, from which only a supply of water can be obtained and the artificial canal, there is no doubt as to the proprietary rights of Government. During 1892-93 the demand for water was pressing. Where canal-water could not be supplied, the rice crops failed wholly or in part, and 71,333 acres were irrigated on agreements being executed in a form prepared by the Solicitor to Government. The Lieutenant-Governor has had many petitions to extend and improve this canal, but there are grave practical difficulties mostly connected with the rights of the owners of the channels through which only water can be supplied, and moreover the discharge of the main canal is insufficient to irrigate more than the area to which water was supplied in the year under review. The landholders who have proprietary interests in the river channels have lately shown a disposition to meet Government in a conciliatory spirit, and it is hoped that an arrangement may be effected under which water will be made available for irrigation under regular rules, and some return obtained for the public money expended.

The Madhuban Canal is a small irrigation work in the Champaran district on the borders of Nepal from which 6400 acres were irrigated in 1892-93. There are no distributaries and it is improbable that it will be worthwhile to construct any.

15. The remaining minor works are canals for navigation, viz., the Calcutta and Eastern Canals, the Orissa Coast Canal, and the Nadia Rivers.

The report of the Committee on the Calcutta and Eastern Canals referred to in last year's resolution was not finally disposed of until the 1st of July 1893, when the system of measurement was altered, so as to make it more nearly correspond with the actual weight of cargo carried. At the same time the rate of tolls which have always been exceedingly moderate were adjusted so that the revenue will not suffer. The proposal to impose toll on loaded boats returning from Calcutta has been dropped, as it was found that the revenue derived would be small and it would entail stopping and examining all boats, only a fractional part of which carry cargo on the homeward journey. The toll levied was 0·68 per cent. on the value of the cargo carried. The net revenue for the year was Rs. 2,27,937 against Rs. 1,81,820 in the preceding year, or 4·2 per cent. on the capital expenditure. The increased profit was wholly due to a decrease in the working expenses, the gross revenue owing to slackness of trade being less than in 1891-92. These canals are in active competition with the Eastern and Central Bengal State Railways, which provide an alternative route from nearly all the places served. Of late years there has been a tendency for jute and other valuable goods to be sent by railway, but there are at present indications of a desire to return to the canals, a class of cargo boats more suitable for navigation having been constructed. The continued reduction in the number of missing tickets, the number of which has fallen from 3,086 in 1883-84 to 169 in 1892-93, may be taken as a sign of careful administration.

16. The orders of the Lieutenant-Governor as to the inspection of offices were only issued in January last, and the scale laid down has not in all cases been fully worked up to. His Honour expects that during the current year all divisional offices and subdivisional and toll offices, to the extent laid down, will be inspected by Superintending Engineers, and that Executive Engineers will not fail to inspect every office subordinate to them. The record of tours is satisfactory, the requirements of Government, except in one instance for which there were special reasons, having been fully met.

17. The Lieutenant-Governor considers that the Superintending Engineer's reports and the Chief Engineer's note thereon show that the Officers and Subordinates of the department have done good work during the year. In some respects there have been shortcomings of which notice has been taken in this Resolution, but in the main there has been a distinct advance both as regards assessments and collections, more especially the latter. His Honour notes the commendation bestowed by the Chief Engineer on the Engineers and Subordinates of the Orissa Circle, more especially on Mr. C. A. White, Executive Engineer, Eden Canal. To Babu Saroda Prosad Chatterjee, Deputy Collector Revenue Division, Sone Canals, the Lieutenant-Governor's thanks are due for the success of the arrangements by which the collections in the three districts of Patna, Gaya and Shahabad have been concentrated in one office.

The encomiums pronounced by the Commissioner of Orissa and the Superintending Engineer on the work of Babu Jagdam Sahai, Deputy Collector, Revenue Division, Orissa Canals, are in His Honour's opinion well deserved, as that officer has brought order out of something like chaos, and with a minimum of coercive measures, recovered arrears which had been left outstanding for years. Finally the Officiating Lieutenant Governor desires to specially thank the Chief Engineer, Mr. Odling, for the ability and zeal he has brought to bear on his important duties throughout the year.

ORDER.—Ordered that a copy of this Resolution and of the Chief Engineer's note and its accompaniments be submitted to the Government of India in the Public Works Department, and published in the *Calcutta Gazette*. Also that it be circulated to other Governments, and to all Departments and Officers of this Government as usual.

By order of the Lieutenant-Governor of Bengal,

G. C. MACONCHY,

*Under-Secretary to the Government of Bengal.*

## Government of Bengal.

### IRRIGATION DEPARTMENT.

## REVENUE REPORT.

*Note by C. W. ODLING, ESQ., M.E., M. INST. C.E., Chief Engineer, on the Canal Revenue Reports of Bengal for the year 1892-93.*

DURING the year 1892-93, the Capital expenditure on Irrigation Works, for which Capital Accounts are kept, amounted to Rs. 5,31,969 for direct and Rs. 12,919 for indirect charges:—

	Direct charges.	Indirect charges.	Total.
	Rs.	Rs.	Rs.
Capital expenditure not charged against Revenue ...	4,57,786	11,541	4,69,327
Minor Works and Navigation ...	74,183	1,378	75,561
Total ...	5,31,969	12,919	5,44,888

2. The total Capital outlay at the end of the year 1892-93, including indirect charges, was as follows:—

	Direct charges.	Indirect charges.	Total.
	Rs.	Rs.	Rs.
<i>Major Irrigation Works—</i>			
Productive Public Works ...	6,12,87,962	17,16,963	6,30,04,925
<i>Minor Works and Navigation—</i>			
Protective grants—Imperial ...	8,66,000	...	8,66,000
Ordinary revenue { Imperial and Provincial. }	1,00,18,261	2,83,430	1,03,01,691
Total ...	7,21,72,223	20,00,393	7,41,72,616

3. Divided under the different projects the above outlay is shown in the following statement :—

Works.	During 1892-93.			To end of 1892-93.		
	Direct charges.	Indirect charges.	Total.	Direct charges.	Indirect charges.	Total.
1	2	3	4	5	6	7
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
<i>Major Irrigation Works—</i>						
Orissa Canals ...	3,63,215	8,804	3,71,819	2,49,69,881	6,62,874	2,55,32,715
Midnapore Canal ...	...	...	...	82,58,711	1,84,133	84,42,841
Hijili Tidal Canal ...	38,319	357	38,676	22,71,024	56,865	23,27,889
Sone Canals ...	56,252	2,580	58,832	2,57,88,346	9,13,131	2,67,01,477
Total ...	4,57,786	11,541	4,69,327	6,12,87,962	17,16,963	6,30,04,925
<i>Minor Works and Navigation—</i>						
Tirhut project ...	...	...	...	5,31,425	74,650	6,06,075
Damodar project ...	(—) 1,200	...	(—) 1,200	1,46,341	16,239	1,62,580
Calcutta and Eastern Canals ...	72,923	1,856	74,779	52,95,466	62,383	53,57,849
Orissa Coast Canal ...	2,460	22	2,482	42,41,459	1,02,975	43,44,434
Saran Canals ...	...	...	...	6,69,570	27,183	6,96,753
Total ..	74,183	1,378	75,561	1,08,84,261	2,83,430	1,11,67,691
GRAND TOTAL ...	5,31,969	12,919	5,44,888	7,21,72,223	20,00,393	7,41,72,616

## REVENUE.

4. The total receipts, working expenses, and charges for interest for the year 1892-93 and four previous years in respect of the works which are classed as Major Irrigation Works are shown in the statement below :—

PARTICULARS.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6
	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts from all sources (less refunds of revenue) ...	13,81,179	15,04,474	13,39,141	15,98,608	18,83,347
Working expenses (direct and indirect charges) ...	14,87,295	14,22,368	14,32,136	14,37,935	14,85,893
Not revenue ...	(—) 1,06,116	82,106	(—) 92,995	1,60,673	3,97,954
Charges for interest ...	23,39,849	23,65,030	23,87,119	24,16,363	24,42,363
Deficit ...	24,45,965	22,92,924	24,80,114	22,55,690	20,44,409
Rate per cent. on Capital outlay ...	4.04	3.74	4.02	3.61	3.24

## INTEREST.

5. The total amount of interest payable to the Imperial Treasury on account of Major Irrigation Works for the year 1892-93 is Rs. 24,23,353.

6. The financial results to the end of the year 1892-93 of both Major Irrigation Works and Minor Works and Navigation, of which Capital and Revenue Accounts are kept, are shown in the statement below:

FINANCIAL RESULTS.

	Major Irrigation Works.	Minor Works and Navigation.
	Rs.	Rs.
Direct revenue ... ..	2,15,11,018	2,22,34,808
Working expenses (direct charges) ...	2,12,50,075	25,37,644
Results on direct charges only ..	Profit 2,60,938	Profit 1,88,97,163
Indirect charges debitable to revenue ...	11,82,199	2,74,919
Results on both direct and indirect charges ...	Loss (—)9,21,261	Profit 1,31,22,243
Charges for interest on Capital ...	4,36,74,892	Not calculated.
Net results, including interest to end of 1892-93 ... ..	Loss 4,45,96,063	.....

7. The financial results to the close of the year 1892-93 of Minor Works and Navigation, of which only Revenue Accounts are kept, are as follows:—

	Rs.
Direct revenue ... ..	85,66,770
Working expenses (direct charges) ...	46,65,248
Results on direct charges only ...	Profit 39,01,522
Indirect charges debitable to revenue ...	2,47,203
Results on both direct and indirect charges ...	Profit 36,54,319

8. The receipts from, and expenditure on, Irrigation, Navigation, and Agricultural Works during the year 1892-93, as compared with those of the year 1891-92, are shown below:—

	1891-92. Rs.	1892-93. Rs.
<b>RECEIPTS.</b>		
XXIX—Major Irrigation Works—Direct Receipts—		
Provincial ... ..	16,02,710	18,87,670
XXX—Minor Works and Navigation—		
Irrigation and Navigation Works—		
Provincial ... ..	8,06,512	7,43,565
<b>Total</b> ... ..	<b>24,09,222</b>	<b>26,31,235</b>

<b>EXPENDITURE.*</b>		
42—Major Irrigation Works, Working Expenses—		
(Direct and indirect charges) Provincial ...	14,42,037	14,89,716
43—Minor Works and Navigation—		
Irrigation and Navigation Works—		
(Direct and indirect charges) Provincial ...	5,84,905	5,23,591
<b>Total</b> ... ..	<b>20,26,942</b>	<b>20,13,307</b>

NET REVENUE FROM IRRIGATION AND NAVIGATION WORKS ... .. 3,82,280 6,17,928

49—Irrigation—Capital expenditure not charged against Revenue ... .. 8,62,366 4,69,327

43—Minor Works and Navigation—Agricultural Works—

<b>RECEIPTS.</b>		
Provincial—		
Collections by P. W. D. ... ..	11,406	10,762
Ditto by Civil officers ... ..	1,17,692	1,24,735
<b>Total</b> ... ..	<b>1,29,098</b>	<b>1,35,497</b>

\* Inclusive of refunds of revenue.

				1891-92	1892-93.
				Rs.	Rs.
EXPENDITURE.					
Provincial	...	...	...	7,58,278	7,81,750
Contributions	...	...	...	6,927	42,531
Total				7,65,205	8,24,281

AREAS IRRIGATED.

9. The areas irrigated by the Major Irrigation Works, during the year 1892-93, and the four previous years, are shown in the following statement:—

Year.	ORISSA CANALS.				MIDNAPORE CANAL				SONE CANALS.				TOTAL.				
	Kharif.	Rabi.	Perennial.	Total.	Kharif.	Rabi.	Perennial.	Total.	Kharif, in- cluding five year and long term leases.	Rabi.	Perennial and hot weather	Total.	Kharif.	Rabi.	Perennial.	Total.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	
1888-89	156,519	2,779	104	159,392	66,408	3,961			*69,777	281,402	60,817	4,000	355,909	504,219	75,905	4,794	584,978
1889-90	180,568	5,897	102	186,627	68,070	440			*68,510	279,942	20,136	5,004	305,292	524,880	26,673	5,166	580,719
1890-91	175,829	4,260	220	180,299	82,002				*82,002	275,980	20,632	4,402	281,014	513,811	24,842	4,622	543,315
1891-92	178,453	3,944	280	177,685	83,905	68			*83,973	296,219	177,905	1,106	474,723	553,577	181,319	1,485	736,381
1892-93	155,025	2,594	333	160,952	91,217				*91,217	274,820	126,195	9,727	410,741	524,081	128,789	10,060	663,630

\* Exclusive of lands surreptitiously irrigated for which leases were granted in subsequent years

The year's working and its financial results will now be dealt with separately for each of the canal systems of the province, as in previous years.

GENERAL.

In all statements showing totals of receipts or expenditure, the figures are those of the Examiner of Accounts. In dealing with details the figures of the Commissioner or of the Superintending Engineer have been taken.

ORISSA CANALS.

10. The Capital, Interest, and Revenue Accounts of these canals are given below:—

CAPITAL ACCOUNT.

I—CAPITAL ACCOUNT.

HEADS OF ACCOUNT.				Outlay during 1892-93.	Outlay to end of 1892-93.
1				2	3
DIRECT CHARGES.				Rs.	Rs.
I.—Works	...	...	...	3,16,566	1,80,92,197
II.—Establishment	...	...	...	61,011	45,25,554
III.—Tools and plant	...	...	...	3,184	20,23,915
IV.—Suspense accounts	...	...	...	(—)17,477	1,46,314
Loss by exchange	...	...	...	...	2,68,070
Total				3,63,284	2,50,56,050
V.—Less—Receipts on Capital account	...	...	...	69	86,169
Net total Direct Charges				3,63,215	2,49,69,881
INDIRECT CHARGES.					
Capitalization of abatement of land revenue	...	...	...	62	33,130
Leave and pension allowances	...	...	...	8,542	5,29,704
Total Indirect Charges				8,604	5,62,834

The principal works charged to Capital account which were in progress during the year were:—The extension of the Taldunda Canal from 28 to 52 miles, the remodelling of the existing Taldunda Canal from Biribatty to Tarpore, the extension of the Byturni right embankment from 7th to 20th miles, and the Burra Khursooa left embankment, a large syphon under No. 4 distributary, and a self acting sluice and other works in connection with the Bhimiai Had drainage. The Daib embankment was completed, and most of the refuge mounds on Sunkarsahi island finished. The works in connection with the Sukendapat drainage scheme were also continued, and good progress was made with the distributaries, several of which were finished during the year.

2.—INTEREST ACCOUNT.

		Rs.
Interest charges to end of 1891-92	...	1,66,70,158
Ditto for 1892-93	...	9,91,531
Total	...	1,76,61,689

INTEREST  
ACCOUNT.

3.—REVENUE ACCOUNT—(Actuals).

PARTICULARS.	EXPENDITURE—		PARTICULARS.	RECEIPTS—	
	During 1891-92.	During 1892-93.		During 1891-92.	During 1892-93.
1	2	3	4	5	6
DIRECT CHARGES.	Rs.	Rs.		Rs.	Rs.
I.—Works, maintenance, and repairs ...	3,22,436	3,79,311	Water-rates ...	2,17,256	3,52,369
II.—Revenue management ...	73,580	95,913	Navigation ...	1,35,902	1,18,757
			Miscellaneous ...	17,843	26,532
Total Direct Charges ...	3,96,016	4,75,224	Total ...	3,71,001	4,97,658
			Less—Refunds of revenue.	79	263
INDIRECT CHARGES ...	27,070	30,283	Net total receipts	3,70,922	4,97,375
			Deficit ...	52,164	8,132
Total Working Expenses	4,23,086	5,05,507	Total ...	4,23,086	5,05,507

REVENUE  
ACCOUNT.

NOTE.—The details by heads of expenditure for the year 1892-93 and nine preceding years will be found in the table given in paragraph 12 following:—

The net result compared with previous years is very satisfactory. Omitting indirect charges, the receipts have exceeded the expenditure by Rs. 22,151; including them the deficit is only Rs. 8,132. This result is due to the recoveries of arrears of past years on account of water-rates and miscellaneous revenue. The receipts under these two heads are the highest on record.

The increased expenditure was mainly due to repairs to the damages caused to the canals by the flood of July 1892. Of the excess of Rs. 22,333 under the head Revenue establishment, Rs. 14,201 are arrears of headmen's fees, paid during the year. Under the new arrangements these fees will no longer be allowed.

11. The following statement shows the earnings, by which is meant the revenue due on the irrigation of the year, whether or no the demand statements

EARNINGS.

were prepared before the 1st of April or not as opposed to collections and actual outlay, for the years 1891-92 and 1892-93.—

	1891-92.	1892-93.
<b>Earnings.</b>	<b>Rs.</b>	<b>Rs.</b>
Irrigation ...	2,66,587	2,40,200
Navigation ...	1,35,902	1,18,757
Miscellaneous ...	17,843	26,532
<b>Total</b> ...	<b>4,20,332</b>	<b>3,85,489</b>
Deduct refunds ...	79	283
<b>Net earnings</b> ...	<b>4,20,253</b>	<b>3,85,206</b>
<b>Outlay</b> ...	<b>4,23,086</b>	<b>5,05,507</b>
<b>Net deficit</b> ...	<b>2,833</b>	<b>1,20,301</b>

As regards irrigation the assessed revenue shows a decrease of Rs. 26,387 compared with that of the previous year, which is entirely due to the falling off of 16,733 acres in the leased area consequent on the favourable rainfall. The actual collections during the year amounted to Rs. 3,52,369, and was Rs. 1,12,169 in excess of the assessed revenue of the year. This is altogether due to the collection of arrear balance, a result of a new system of management, and a more efficient establishment.

12. The revenue receipts and working expenses for the last ten years are tabulated below :—

PARTICULARS.	1891-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-00.	1900-01.	1891-92.	1892-93.
1	2	3	4	5	6	7	8	9	10	11
<b>RECEIPTS.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>
Water-rates ...	1,11,885	51,945	1,00,542	90,976	1,37,689	1,51,305	1,90,444	2,09,806	2,17,356	3,52,369
Navigation ...	1,10,162	79,802	84,012	67,048	71,004	77,908	88,632	1,21,408	1,35,902	1,18,757
Miscellaneous ...	15,600	12,538	16,496	15,587	14,171	14,242	15,747	13,708	17,843	26,532
<b>Total</b> ...	<b>2,37,647</b>	<b>1,43,685</b>	<b>2,07,330</b>	<b>1,70,611</b>	<b>2,23,044</b>	<b>2,43,515</b>	<b>3,04,223</b>	<b>3,45,012</b>	<b>3,71,001</b>	<b>4,97,658</b>
<b>Less—Refunds of revenue</b> ...	<b>68</b>	<b>78</b>	<b>6</b>	<b>92</b>	<b>365</b>	<b>221</b>	<b>129</b>	<b>76</b>	<b>79</b>	<b>283</b>
<b>Total receipts</b> ...	<b>2,37,579</b>	<b>1,43,607</b>	<b>2,07,324</b>	<b>1,70,519</b>	<b>2,22,679</b>	<b>2,43,294</b>	<b>3,04,094</b>	<b>3,44,936</b>	<b>3,70,922</b>	<b>4,97,375</b>
<b>WORKING EXPENSES.</b>										
<b>Direct Charges.</b>										
1.—Works, maintenance and repairs—										
Works (extensions and improvements) ...	1,80,617	2,03,137	2,22,090	3,52,701	3,10,980	2,36,694	2,31,068	2,22,638	5,001	8,123
Repairs ...	41,060	50,958	51,190	81,117	98,163	70,201	1,09,434	1,32,850	1,19,775	1,30,391
Establishment, including direction and accounts ...	11,202	15,107	10,159	15,486	16,391	21,156	10,722	13,051	27,023	19,437
Tools and plant ...	...	...	...	...	...	...	...	1,225	...	...
Profit and loss ...	...	...	...	...	...	...	...	...	...	...
Direct expenditure in England ...	427	...	...	...	...	...	...	...	...	...
<b>Total</b> ...	<b>2,44,896</b>	<b>2,69,202</b>	<b>2,83,048</b>	<b>4,40,304</b>	<b>4,25,524</b>	<b>3,28,051</b>	<b>3,60,224</b>	<b>3,70,678</b>	<b>3,22,436</b>	<b>3,79,311</b>
11.—Revenue management—										
Irrigation establishment ...	33,432	33,009	34,304	37,805	40,390	43,161	55,502	52,591	57,074	78,906
Navigation ditto ...	14,681	12,396	15,219	15,471	15,125	15,734	15,871	16,119	10,506	16,017
<b>Total</b> ...	<b>48,113</b>	<b>45,405</b>	<b>49,523</b>	<b>53,276</b>	<b>55,515</b>	<b>58,895</b>	<b>71,373</b>	<b>68,710</b>	<b>73,580</b>	<b>95,913</b>
<b>Total Direct Charges</b> ...	<b>2,93,009</b>	<b>3,14,607</b>	<b>3,32,571</b>	<b>4,93,580</b>	<b>4,81,039</b>	<b>3,86,946</b>	<b>4,31,597</b>	<b>4,39,388</b>	<b>3,96,016</b>	<b>4,75,224</b>
<b>Indirect Charges.</b>										
Capitalized abatement of land revenue ...	12,840	13,029	14,101	18,703	21,501	18,073	25,313	28,220	27,070	30,283
Leave and pension allowances ...	...	...	...	...	...	...	...	...	...	...
<b>Total Indirect Charges</b> ...	<b>12,840</b>	<b>13,029</b>	<b>14,101</b>	<b>18,703</b>	<b>21,501</b>	<b>18,073</b>	<b>25,313</b>	<b>28,220</b>	<b>27,070</b>	<b>30,283</b>
<b>Total Working Expenses</b> ...	<b>3,05,849</b>	<b>3,27,636</b>	<b>3,46,672</b>	<b>5,12,283</b>	<b>5,02,540</b>	<b>4,05,019</b>	<b>4,56,910</b>	<b>4,67,608</b>	<b>4,23,086</b>	<b>5,05,507</b>
<b>Net revenue</b> ...	<b>(-) 68,270</b>	<b>(-) 1,84,029</b>	<b>(-) 1,40,348</b>	<b>(-) 3,41,764</b>	<b>(-) 2,79,771</b>	<b>(-) 1,61,725</b>	<b>(-) 1,52,716</b>	<b>(-) 1,22,672</b>	<b>(-) 52,164</b>	<b>(-) 8,132</b>

The very large increase in the total receipts for the year under review is the most striking feature presented by the figures above. The arrear balances, however, have now been mostly collected, and the revenue will in future largely depend on the rainfall and on irrigation on the new distributaries becoming general, a result which will only slowly take place.



13. The lengths of the canals and distributaries in operation at the close of the year 1892-93 compared with 1891-92, are given in the following table:—

LENGTHS OF  
CANALS AND  
DISTRIBUTA-  
RIES.

NAME OF CANALS.	1891-92.								1892-93.							
	Navigable canals.	Canals for irrigation only.	Distributaries and village channels.	Area protected from flood.	Area under command.	Area provided with distributaries.	Area irrigated.	Percentage of area irrigated to area provided with distributaries.	Navigable canals.	Canals for irrigation only.	Distributaries and village channels.	Area protected from flood.	Area under command.	Area provided with distributaries.	Area irrigated.	Percentage of area irrigated to area provided with distributaries.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<b>Mahanadi Series.</b>	Miles.	Miles.	Miles.	Acres.	Acres.	Acres.	Acres.		Miles.	Miles.	Miles.	Acres.	Acres.	Acres.	Acres.	
Taldundah ... ..	51½	...	76½	75,278	75,278	21,850	41,906	54.90	61½	...	93½	75,278	75,278	23,510	36,591	45.99
Machgong ... ..	4	28	140½	97,057	97,057	54,480	...	...	4	28	138½	97,057	97,057	56,067	...	...
Kendrapara ... ..	39	...	389½	129,421	101,110	85,190	...	...	39	...	393½	129,421	101,110	23,390	...	...
Gobri with extension ... ..	2½	...	15½	27,251	53,290	6,118	74,180	53.34	2½	...	19½	27,251	53,290	8,676	67,738	45.93
Pattamondoe ... ..	...	47	98½	65,000	51,250	37,829	...	...	...	47	100	65,000	51,250	43,159	...	...
Kendrapara Extension ... ..	15	...	...	8,000	7,000	...	...	...	15	...	...	8,900	7,000	...	...	...
High Level Canal, Range I ... ..	33	...	131½	80,128	48,815	48,815	22,423	55.93	33	...	131½	80,128	48,815	48,815	21,325	48.48
<b>Total Mahanadi Series</b> ... ..	166½	75	834½	483,095	439,800	264,212	138,509	52.42	166½	75	890½	489,056	439,800	275,357	125,544	46.51
<b>Brahmini-Byturni Series.</b>																
High Level Canal, Range II ... ..	12½	...	...	...	10,000	...	2,513	...	12½	...	...	...	10,000	...	2,389	...
Do. do., do. III ... ..	19	...	40½	...	57,500	44,047	36,211	82.21	19	...	49½	...	57,500	44,047	32,201	73.11
Jaipur Canal ... ..	0½	...	8½	...	70,000	600	452	75.33	0½	...	10½	10,000	70,000	1,200	878	73.17
<b>Total Brahmini-Byturni Series</b> ... ..	38	...	56	...	137,500	44,647	36,170	87.74	38	...	60½	10,000	137,500	45,247	35,408	78.35
<b>Total Orissa Canals</b> ... ..	204½	75	890½	493,095	571,300	308,859	177,685	77.53	204½	75	941	493,056	571,300	321,084	160,952	80.13

No change was made in the lengths of canals during the year. The completion of fifty miles of distributaries during the year resulted in an increase of 12,225 acres to the area irrigable. The total area protected from floods was increased by 10,000 acres, owing to the extension of the Byturni right embankment from 6½ to 10 miles, and the completion of 10 miles of the Burra Khursooah left embankment.

14. In the following statement is shown the average rainfall at thirteen stations situated within the canal irrigated area, for the kharif and rabi seasons of the last five years:—

RAINFALL.

		AVERAGE OF THIRTEEN STATIONS.				
		1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1		2	3	4	5	6
		Inches.	Inches.	Inches.	Inches.	Inches.
Kharif season	July ...	8.91	13.10	12.59	10.34	11.99
	August ...	21.61	13.11	7.58	16.98	8.08
	September ...	8.36	5.30	14.40	19.45	10.71
	October ...	1.11	9.16	8.63	1.17	5.66
	Total ...	39.99	40.67	43.20	47.94	36.44
Rabi season	November ...	2.88	11.24	1.94	6.77	0.85
	December ...	.....	0.15	0.05	.....	.....
	January ...	0.06	0.06	.....	.....	2.00
	February ...	0.81	0.03	0.99	0.20	1.89
	Total ...	3.75	11.47	2.98	6.97	4.74
Whole year ...		49.07	67.95	63.17	61.03	56.43

The total rainfall of the year was below the average, and in the kharif season there was a marked deficiency everywhere. The rains set in earlier than usual, and the amount which fell in June and July was plentiful, but it was

scanty in August and September, and this led to the renewal of some of the lapsed leases. After the 13th October the rainfall was seasonable, and there was no further demand for canal water. It is in this month that new leases are generally entered into, so that the rainfall was on the whole favourable to the unirrigated crops.

The average rainfall of the year at ten stations in the Central Provinces, which are drained by the Mahanadi, was 62·43 inches, against 56·14 inches in 1891-22.

FLOODS.

15. The flood in the Mahanadi river was the highest recorded during the last 50 years. There were high floods also in the Brahmini and Beropa. The highest recorded readings of the principal rivers for the year and up to date are given in the following statement:—

NAME OF RIVER.	Locality.	1891-92.		1892-93.		HIGHEST RECORDED.	
		Date.	Read- ing.	Date.	Read- ing.	Date.	Read- ing.
1	2	3	4	5	6	7	8
Mahanadi	Naraj above weir ...	30th July 1891 ...	87·90	26th July 1892 ..	92·10	20th July 1882 ...	92·10
	Do, below weir ...	30th „ „ ...	87·90	12th „ „ ...	92·10	20th „ „ ...	92·10
	Jobra above weir ...	30th „ „ ...	71·75	12th „ „ ...	75·95	25th „ „ ...	75·95
	Do, below weir ...	30th „ „ ...	70·10	12th „ „ ...	74·00	25th „ „ ...	74·00
Brahmini	Janapur above weir ...	15th September 1891	66·00	13th „ „ ..	66·40	18th „ „ 1891 ..	68·75
	Ditto below weir ...	15th „ „ ..	65·90	13th „ „ ..	66·20	18th „ „ ..	66·00
Byturni	Akhaopada above weir...	14th August 1891 ..	62·70	11th June „ ..	61·80	16th „ „ ..	66·00
	Ditto below weir...	14th „ „ ..	60·20	11th „ „ ..	55·50	16th „ „ ..	63·70
Salindi	Randia ...	4th „ „ ..	56·68	3rd Sept. „ ..	51·20	12th Sept. 1887 ..	50·78
Katjuri	Belovue ...	30th July „ ..	78·80	25th July „ ..	83·30	25th July 1892 ..	83·30
Beropa	Jagatpur above weir ..	30th „ „ ..	67·60	25th „ „ ..	70·40	4th „ „ 1872 ..	71·10
	Ditto below weir ...	30th „ „ ..	64·20	25th „ „ ..	70·40	4th „ „ ..	70·60

IRRIGATION.

16. The areas of each crop irrigated during the last ten years with the yearly rainfall are shown in the following statement:—

YEAR.	Kharif.	Rabi.	Perennial.	Total.	Rainfall.
1	2	3	4	5	6
	Acres.	Acres.	Acres.	Acres.	Inches.
1883-84 ...	47,035	1,381	344	48,760	57·21
1884-85 ...	54,181	2,994	197	57,372	50·40
1885-86 ...	70,563	1,605	171	72,339	52·59
1886-87 ...	75,115	2,440	154	77,709	60·07
1887-88 ...	108,867	502	137	109,506	47·84
1888-89 ...	156,319	2,779	194	159,292	49·07
1889-90 ...	180,568	5,897	162	186,627	67·95
1890-91 ...	175,829	4,250	220	180,299	63·17
1891-92 ...	173,453	3,943	289	177,685	61·03
1892-93 ...	158,025	2,594	333	160,952	56·43

The whole of these areas was assessed.

17. The nature of the assessment of the crops irrigated during the year, as compared with the figures of the two preceding years, is shown in the statement below:—

Crops.	Rate per acre.	1890-91.		1891-92.		1892-93.	
		Area.	Amount.	Area.	Amount.	Area.	Amount.
1	2	3	4	5	6	7	8
Kharif ...	Rs. a. p.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.
{ Flow ...	1 8 0	(a) 168,227	2,52,173	(b) 168,656	2,56,314	(c) 155,727	2,32,448
{ Lift ...	1 0 0	(a) 5,596	5,596	(b) 4,787	4,780	(c) 2,197	2,197
Perennial crops ...	6 0 0	121	712	141	845	125	748
{ Flow ...	4 0 0	88	351	148	594	208	894
{ Lift ...	0 8 0						
Rabi ...	2 0 0	3,634	3,888	3,259	3,435	2,291	2,408
{ Flow ...	0 5 0						
{ Lift ...	1 8 0	615	474	632	513	808	268
Unauthorized irrigation		2,006	6,080	11	20	101	802
{ Kharif ...		12	36	52	78		
{ Rabi ...							
Total		180,299	2,69,310	177,685	2,66,587	160,952	2,40,200

(a) 173,577 acres 5-year lease, and 246 acres annual lease.

(b) 170,816 acres 5-year lease, and 2,625 acres annual lease.

(c) 156,458 acres 5-year lease, and 1,466 acres annual lease.

The area of unauthorized irrigation assessed was 101 acres, against 63 acres in 1891-92. There was a decrease of kharif irrigation on all the canals, except the Jajpur, the total amounting to 15,428 acres. Under rabi there was a large decrease on the Kendrapara Canal owing to the closure of some of the distributaries.

Of the commanded area 29·64 per cent., and of the area provided with distributaries 52·75 per cent., were under lease at the end of the year. These percentages are less than those of last year, owing partly to the area provided with distributaries having been increased by 12,225 acres, and partly to the decrease of the leased area.

The Superintending Engineer summarizes the general character of the irrigation season as follows:—

“There was early and seasonable rain in June, and on account of the heavy rainfall in July, there was no demand for canal water; but from the middle of August to the end of October demand was constant. The season was of an ordinary character, and at no time was the demand such as to put the canals to any severe test.”

As before remarked, there was no rain towards the end of October, and generally the season was not favourable to any extensive increase in the irrigated area.

18. The duty obtained on each of the principal canals, and calculated from the gross discharge at the canal heads is given in the following table for the year under review and two preceding years:—

PARTICULARS.		Kendra-para Canal system.	Taldunda Canal system.	High Level Canal, Range I.	High Level Canal, Range II.	High Level Canal, Range III.
1		2	3	4	5	6
1892-93	Kharif ... Acres	65,724	36,327	20,950	2,285	32,194
	Duty on gross supply	64·93	114·97	60·51	119·76	98·95
	Rabi ... Acres	2,004	264	275	44	7
1891-92	Duty on gross supply	5·80	13·03	1·82	74·58	0·74
	Kharif ... Acres	70,688	41,570	22,394	2,451	36,189
	Duty on gross supply	80·05	103·99	84·75	24·95	117·69
1890-91	Rabi ... Acres	3,494	336	29	62	22
	Duty on gross supply	7·60	3·50	0·14	2·88	1·02
	Kharif ... Acres	71,403	41,247	21,893	2,473	39,033
1890-91	Duty on gross supply	66·42	102·22	66·07	37·61	107·81
	Rabi ... Acres	3,567	559	91	30	3
	Duty on gross supply	9·46	13·31	1·79	2·11	0·43

DUTY OF WATER.

The rabi irrigation is so small that it is not worthwhile considering the duty in that season.

The results regarding the duty of water for the kharif season are shown in the following statement:—

1	Kendrapara Canal system.	Taldunda Canal system.	HIGH LEVEL CANAL—		
			Range I.	Range II.	Range III.
2	3	4	5	6	7
Area of kharif irrigation ..Acres.	65,724	36,327	20,950	2,285	32,194
Average gross discharge at head of canal .. O. ft.	1,012'25	307'25	340'25	19'08	325'35
Average gross discharge at head of canal utilized ..	956'68	309'25	298'15	14'48	318'60
Duty of quantity entering canal ..	64'93	114'97	60'51	119'76	98'95
Ditto utilized ..	68'70	134'92	75'13	157'80	101'05

The duty on the gross discharge was highest on the High Level Canal, Range II, and least on Range I, while that on the discharge utilized was highest also on Range II, and lowest on the Kendrapara Canal.

The duty obtained during the kharif season was higher on the Taldunda Canal System and High Level Canal, Range II, than in 1891-92. On all the other canals is has decreased.

The Officiating Superintending Engineer, Mr. Horn, who was previously Executive Engineer in charge of the Brahmini-Byturni Division, makes the following observations:—

"It seems to me that this system of deducing an average duty for the season has little practical value. For example, it is only necessary to point out that an average duty of 80·05 was obtained on the Kendrapara canal system in 1891-92, whereas the duty during October of that year was only 56. The high average duty is only explicable when it is remembered that the canal was practically closed during August and September on account of exceptional rainfall. Throughout the whole of October the strain on the canal was great, and every drop of water that could be admitted at Jagatpur was utilized"

The most important matter is the duty which can be obtained over a short lease not exceeding 15 days. In 1891-92 the duty in October was 56 acres per cubic foot per second only, but improvements in the distributaries and outlets have been and are being made which will give the Subdivisional Canal Officer more control over the supply. It is expected that even at the time of maximum demand a duty of 70 acres per cubic foot per second will ultimately be obtained.

CROP EXPERIMENT.

19. To test the outturn of crops, 267 experiments were made during the year—144 of them were on lands irrigated by canal water, and 123 on unirrigated lands. The results obtained are tabulated below:—

NAME OF DIVISION.	Number of experiments.	OUTTURN PER ACRE FROM IRRIGATED LAND.		Number of experiments.	OUTTURN PER ACRE FROM UNIRRIGATED LAND.		VALUE OF OUTTURN FROM IRRIGATED LAND.		VALUE OF OUTTURN FROM UNIRRIGATED LAND.	
		Rice frs of paddy.	Straw.		Rice frs of paddy.	Straw.	Rice 17 seers 3 chs. per rupee.	Straw at 9 maunds per rupee.	Rice 17 seers 3 chs. per rupee.	Straw at 9 maunds per rupee.
1	2	3	4	5	6	7	8	9	10	11
		Mds.	Mds.		Mds.	Mds.	Rs.	Rs.	Rs.	Rs.
Mahamedli .. .. .	30	501'34	787'00	27	239'33	341'00	1,169'75	67'44	556'08	37'68
Brahmani-Byturni .. .. .	54	536'25	1,191'01	45	395'88	760'05	1,245'00	132'34	921'09	86'07
Aquapada-Jajpur .. .. .	51	780'93	1,479'95	51	582'49	1,011'10	1,817'43	104'43	1,308'86	112'34
Total	144	1,818'52	3,457'96	123	1,187'70	2,132'15	4,232'18	384'21	2,786'93	236'09
Average of all experiments per acre	...	12'63	24'01	...	9'66	17'33	29'40	2'67	22'60	1'92
Average of five years ending with 1891-92	1891-92	10'07	19'20	...	8'10	13'70	16'00	2'14	12'15	1'62
	1890-91	13'81	22'59	...	10'04	16'12	20'76	2'51	15'05	1'79
	1889-90	14'01	23'00	...	9'28	14'40	21'01	2'56	13'71	1'60
	1888-89	10'82	20'12	...	7'35	14'02	16'23	2'24	11'02	1'56
	1897-98	8'22	16'84	...	6'25	12'00	12'35	1'67	9'31	1'19

N.B. In this statement the outturn is shown in rice by taking frs of shusked paddy. The previous year's outturn paddy has been converted into rice by taking frs, and the quantities thus found are entered above.

20. The balances outstanding at the commencement of the year under review were as follows:—

ASSESSMENTS  
COLLECTIONS,  
AND BALANCES

	Rs.
Water-rates ... ..	2,88,704
Miscellaneous Revenue ... ..	967
Total ...	2,33,971

as against the balances outstanding on 1st April 1893, which were—

	Rs.
Water-rates ... ..	89,816
Miscellaneous Revenue ... ..	..
Total ...	89,816

The table below shows the balances, assessments, and recoveries of water-rates for the last five years:—

YEAR.	Amount outstanding at commencement of year.	Amount falling due during the year.	Total for recovery.	Cash realizations.	Remitted or written off.	Balance at the end of the year.
1	2	3	4	5	6	7
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1888-89 ..	92,109	1,96,765	2,88,874	1,51,365	22,912	1,14,597
1889-90 ..	1,14,597	2,87,277	4,01,874	1,99,844	25,268	1,76,762
1890-91 ...	1,76,762	2,69,650	4,46,412	2,09,806	38,242	1,98,364
1891-92 ...	1,98,364	2,82,880	4,81,244	2,17,256	30,284	2,33,704
1892-93 ...	2,33,704	2,61,023	4,94,727	3,52,368	52,543	89,816

The results disclosed by these figures cannot be regarded as otherwise than satisfactory. The outstanding balance, which at the end of 1891-92 was the highest on record, has been reduced at the end of the year under review, to a comparatively small amount. This improvement is very largely due to the new system of Revenue management under the supervision of the Superintending Engineer which was introduced during the year. The offices of the Revenue Superintendent and Deputy Revenue Superintendent of Canals were abolished, and a Revenue Division was formed on the 1st April 1892. The Special Deputy Collector, who was placed in charge, took up the task of collecting arrears with great assiduity. The Superintending Engineer writes as follows on the working of the Revenue Division:—

“The Deputy Collector deserves the greatest credit for the immense improvement in collections; this has to my knowledge only been effected by detailed and constant personal attention”

21. The progress of the year in realizing arrears and current demand is shown in the following table:—

ARREARS

Year in which irrigation occurred	DEMANDS.			Collected or remitted	Balance on 31st March 1893
	Arrears on 31st March 1892	Demands for 1892-93	Total.		
1	2	3	4	5	6
	Rs.	Rs.	Rs.	Rs.	Rs.
1889 90 and previous years	28,732	14,471	43,203	42,779	424
1890-91 ..	81,940	53	81,993	66,784	15,259
1891-92 ..	1,23,032	89,418	2,12,450	1,90,404	22,046
1892-93 ...	...	1,57,081	1,57,081	1,04,994	52,087
Total ..	2,33,704	2,61,023	4,94,727	4,04,911	89,816

CERTIFICATES.

The amount realised by the Collectors on water-rates and miscellaneous revenue was Rs. 3,73,244, against Rs. 2,28,451 so collected in 1891-92.

22. In the following table is shown (approximately) the amount of certificate work done in each district:—

	CUTTACK.				BALASORE.				TOTAL.			
	1891-92.		1892-93.		1891-92.		1892-93.		1891-92.		1892-93.	
	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.
1	2	3	4	5	6	7	8	9	10	11	12	13
Cases for disposal—		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
1. Cases pending at the close of the preceding year	7,580	23,599	4,503	20,090	1,484	3,900	221	1,029	9,044	27,499	4,723	21,119
2. Cases instituted during the year	7,094	24,049	6,964	56,634	1,440	4,470	1,027	14,633	8,643	28,519	7,001	71,267
Total	15,254	47,648	11,467	76,724	2,433	8,370	1,248	15,662	17,687	56,018	11,724	92,386
Cases disposed of—												
1. By being struck off owing to the demand having been remitted	1,200	2,444	528	2,937	76	142	94	876	1,375	3,607	552	3,218
2. By being wholly satisfied	9,573	25,094	10,975	67,634	2,136	7,198	1,108	12,042	11,709	32,392	11,183	70,676
Total	10,873	27,538	10,003	70,571	2,212	7,340	1,132	12,917	13,084	36,009	11,735	73,894
Balance outstanding at the close of the year	4,382	20,040	863	6,153	221	1,029	116	3,345	4,603	21,119	979	9,408

These figures show another satisfactory result of the establishment of a Revenue Division. Of 12,714 cases, of which 4,723 were pending from the preceding year, 11,735 were disposed of, and of this number 11,122 cases were dealt with by the Special Deputy Collector. That his task was no light one is evidenced by the following remark of the Superintending Engineer. "Most of the pending cases from last year were of a difficult nature, some of them referring to as far back as 1885-86." The balance of cases left pending at the close of the year was only 979.

The large number of cases struck off was due partly to the erroneous assessment of high and unirrigable lands, and partly to irrecoverable demands. There were scarcely any complaints regarding the measures adopted to realize the arrears, one only reaching head-quarters, and this on investigation was found not to have emanated from the person whose signature it bore. The Commissioner who inspected the Deputy Collector's office recorded a note expressing his approval of the manner in which Babu Jagdam Sahai had carried on the work generally, and more especially the certificate cases.

23. The following table shows the number of objections against assessment filed and disposed of during the year:—

DIVISION.	(I)—ORDINARY REMISSION.				(II to IV)—OTHER COMPLAINTS.				Total complaints received during the year including those pending from previous year.	Pending.
	Received during the year and pending from previous year.	Disposed of.		Pending.	Received during the year and pending from last year.	Disposed of.		Pending.		
		Remission allowed.	Remission refused.			Remission allowed.	Remission refused.			
1	2	3	4	5	6	7	8	9	10	11
1.—Water-rates—										
Land not irrigated ... ..	1,008	883	71	54	...	...	...	...	920	54
Do. damaged ... ..	432	370	32	25	...	...	...	...	379	25
Erroneous assessment ... ..	221	116	49	56	...	...	...	...	118	56
Regulators not allowed in drainage cuts	4	4	...	...	...	...	...	...	1	...
Jagir lands ... ..	125	90	19	14	...	...	...	...	105	14
Double assessment ... ..	9	8	1	...	...	...	...	...	9	...
Appeals ... ..	...	...	...	...	...	...	...	...	...	...
Total ...	1,790	1,477	171	151	...	...	...	...	1,827	151
2.—Miscellaneous										
3.—Mutations and other complaints ... ..	300	238	48	23	...	...	...	...	217	23
...	...	...	...	...	2,094	1,543	232	280	1,628	280
Total for 1892-93 ...	2,108	1,715	219	174	2,094	1,543	232	280	3,372	454
Total for 1891-92 ...	2,807	1,803	370	363	2,604	1,049	180	406	5,780	839

COMPLAINTS.

24. The amounts remitted and written off as irrecoverable during the year on account of water-rates aggregated Rs. 52,541 as compared with Rs. 30,485 written off under the same heads in 1891-92. The details are given below:—

*Revision of Assessment.*

			Rs.
(a) Unirrigated crops	...	...	17,641
(b) Damaged	...	...	7,421
(c) Chaukidar's jagir	...	...	5,048
Total	...	...	30,110

*Remissions*

(a) Waste land	...	...	1,444
(b) Land occupied by canals	...	...	175
(c) Twice assessed	...	...	244
(d) Barred by limitation	...	...	2,664
(e) Excess recovery refunded	..	...	990
(f) Change of rates	..	...	5,642
(g) Erroneous assessments	..	...	491
(h) On account of death of defaulters	...	...	631
(i) Absconding of defaulters	..	...	266
(j) Lease cancelled	...	...	825
(k) Cyclone damages	...	...	3,296
Total	...	...	16,668

*Written off.*

Irrecoverable demands	...	...	7,532
Total	...	...	54,310
Deduct remissions under miscellaneous revenue	...	...	1,769
Net remission	...	...	52,541

Of the above amount Rs. 38,851 were remitted by Mr. Roberts, the late Deputy Revenue Superintendent of Canals before he made over charge of his office. The matter was brought to the notice of Government, and orders taking exception in some respects to the course adopted were passed.

The large amount of remission under the head unirrigated crops is somewhat misleading. Under the old revenue system it was the custom to include the whole area of the village jamabandi in the lease and demand statement, and afterwards to remit such portion of it as was found to be unirrigable. This system has now been abolished, and under the new rules a large portion of the area remitted would not have been entered either in the lease or demand statement. The same remarks apply to the remission under damaged crops, as the lowlands which do not derive benefit from canal water would find no place in the new leases.

The amounts remitted by the Special Deputy Collector with the Superintending Engineer's sanction aggregated Rs. 13,654, which was largely due to damage caused by the cyclone of October 1892.

The undernoted table shows the distribution of the remission year by year, and under each canal:—

YEAR.	Kendiapara Canal system	Taldunda Canal system	High Level Canal, Range I.	High Level Canal, Range II, including Jajpur Canal	High Level Canal, Range III	Total
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1886-87	324 8 6	199 9 2	17 6 7	8 3 6		549 11 8
1887-88	1,853 9 11	95 7 11	927 0 4		42 15 4	2,919 1 6
1888-89	2,313 7 4	1,290 2 10	1,245 15 1	115 1 11	140 6 11	5,136 2 1
1889-90	2,511 6 2	1,026 15 9	444 13 3	2 7 11	311 14 2	4,330 8 3
1890-91	2,995 15 5	4,124 8 0	1,599 9 0	2 3 1	742 3 4	9,464 6 10
1891-92	14,187 10 9	11,082 10 6	2,932 6 10	69 9 4	1,104 3 4	29,326 8 9
1892-93	69 12 6	660 11 9	...	..	86 7 5	817 1 8
Total	24,286 6 6	18,430 1 11	7,167 2 1	197 9 9	2,461 2 6	52,542 6 0

REVENUE  
ESTABLISH-  
MENT.

25. The cost of the revenue establishment for the last five years is given in the following statement:—

	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6
<i>Establishment under Deputy Collector.</i>	Rs.	Rs.	Rs.	Rs.	Rs.
Permanent establishment, including travelling allowance ... ..	21,448	22,116	21,848	22,014	31,086
Temporary establishment ... ..	9,941	19,112	17,451	17,504	16,020
Contingencies ... ..	2,889	4,482	2,928	3,458	4,098
Headmen's fees ... ..	1,680	2,244	2,803	6,591	20,040
<i>Establishment under Executive Engineer.</i>					
Permanent and temporary establishment ... ..	3,052	3,398	3,417	3,447	5,930
Water-regulation establishment ... ..	4,151	4,150	4,144	4,127	3,274
Total ... ..	43,161	55,502	52,591	57,141	80,448
Collections of water-rates and miscellaneous revenue by the Canal Revenue Department ... ..	1,60,328	2,09,823	2,19,692	2,28,451	3,73,244
Percentage ... ..	26.9	26.4	23.9	25.0	21.0

The increased cost of establishment was, as previously remarked, mainly owing to the payment of arrears of headmen's fees due on irrigation in former years. There has, however, been some increase in the cost of establishment owing to the introduction of a new system which has increased efficiency more than repaid the extra expenditure.

NAVIGATION.

26. The tollage receipts of each of the canal systems for the last five years are shown below:—

YEAR.	TALDUNDIAH CANAL SYSTEM.		KENDRAPARA CANAL SYSTEM.		HIGH LEVEL CANAL, RANGE I.		HIGH LEVEL CANAL, RANGE II.		HIGH LEVEL CANAL, RANGE III.		JAIPUR CANAL.		TOTAL.	
	Number of miles open.	Tollage receipts.	Number of miles open.	Tollage receipts.	Number of miles open.	Tollage receipts.	Number of miles open.	Tollage receipts.	Number of miles open.	Tollage receipts.	Number of miles open.	Tollage receipts.	Number of miles open.	Tollage receipts.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
1888-89	31	4,310	75	55,786	33	6,542	12½	3,592	19	1,001	6½	99	177	69,830
1889-90	31	4,120	75	60,345	33	8,700	12½	3,553	19	1,386	6½	165	177	78,639
1890-91	31	2,118	75	60,007	33	12,220	12½	3,185	19	2,174	6½	318	177	1,06,061
1891-92	56½	4,357	78	98,462	33	12,554	12½	3,027	19	1,775	6½	286	204½	1,20,761
1892-93	56½	6,534	78	73,500	33	15,278	12½	3,165	19	1,761	6½	275	204½	1,00,503

The decrease in the total tollage receipts is due chiefly to the diminished exports from False Point caused by the high price of grain in the local market.

The up traffic in salt largely increased, while the down traffic was only half that of the previous year.

TRAFFIC.

The following table details the traffic (excluding the transport service) of all the canals in Orissa for the last ten years:—

	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6	7	8	9	10	11
Number of miles open ... No.	164½	164½	170½	170½	170½	177	177	177	204½	304½
Toll collections ... Rs.	61,092	52,784	64,063	68,664	68,628	69,830	78,039	1,00,961	1,26,781	1,00,503
Rate of toll per mile ... ..	37.4	320.8	375.9	344.1	380.7	394.5	440.9	604.3	689.8	460.8
Number of boats plying cargo and passenger ... No.	15,507	18,768	20,632	14,311	12,084	11,475	11,937	12,005	12,946	13,325
Tonnage of cargo and passenger boats ... Tons.	146,685	167,017	180,148	128,398	176,996	153,674	186,019½	250,248	286,601½	239,588
Estimated value of cargo, including raffa ... Rs.	47,59,658	44,80,105	46,32,733	41,61,050	50,32,008	47,40,887	48,08,265	85,21,551	98,40,756	84,68,728



27. During the year the cost of working the transport service amounted to Rs. 17,297 and the actual receipts were Rs. 18,891. The service therefore, which has hitherto always worked at a loss, worked at a profit of Rs. 1,594. The working charges under miscellaneous include Rs. 5,417 as tollage debited to the account by book adjustment. If this amount be excluded, the profit would amount to Rs. 7,011 against Rs. 2,521 in 1891-92.

TRANSPORT  
SERVICE

28. The miscellaneous receipts for the last five years are shown in the following statement:—

MISCELLANEOUS  
RECEIPTS.

DETAILS.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6
	Rs.	Rs.	Rs.	Rs.	Rs.
Sale of water ...	41	243	222	56	158
Plantations ...	1,450	728	1,035	917	1,960
Other canal produce ...	895	568	845	936	1,123
Rent of buildings ..	4,855	4,781	3,067	6,332	4,749
{ Rent of lands ...	5,857	7,659	6,793	8,232	9,291
{ „ fisheries ...	877	920	1,039	1,104	972
Miscellaneous { Cost of process ...	68	63	6	...	7,420
{ Sales of old materials	31	65	100	96	3
{ Other items ...	168	116	601	170	856
Total ...	14,242	15,143	13,708	17,843	26,532

29. The charges for works, and maintenance and repairs during the year were Rs. 2,39,483 against Rs. 1,75,467 in the previous year distributed as in the following statement:—

MAINTENANCE  
AND REPAIRS

	1890-91.	1891-92.	1892-93.
1	2	3	4
	Rs.	Rs.	Rs.
Extensions and improvements ...	11,051	8,679	9,123
Head-works ...	74,407	48,151	53,456
Main canals ..	90,592	82,741	1,23,060
Distributaries ...	21,992	15,324	30,033
Drainage and protective works ...	12,676	10,389	11,997
Cost of working transport service ...	11,478	10,180	11,814
Total ...	2,22,226	1,75,467	2,39,483

The amount under extensions and improvements includes a sum of Rs. 8,172 expended during the year in remodelling the Byturni weir shutters on the Sone pattern.

HEAD-WORKS.

30. The cost of maintenance of the weirs was Rs. 42,666 out of the total Rs. 55,125 spent on head-works. Details are given below:—

NAME OF WEIR.	Length.	EXPENDITURE.			RATE PER RUNNING FOOT.		
		1890-91.	1891-92.	1892-93.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6	7	8
	Feet.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Naraj ...	3,833	4,728	3,194	4,031	1.23	0.83	1.05
Mahanadi ...	6,349	33,310	19,484	15,136	5.25	3.07	2.38
Beropa ...	1,980	7,616	8,433	9,546	3.85	4.27	4.77
Brahmini...	4,000	4,302	2,721	2,985	1.08	0.69	0.74
Pattia ...	783	4,194	2,538	3,224	5.36	3.39	4.11
Byturni ...	1,026	3,792	1,244	4,604	3.70	1.21	4.48
Burra ...	526	4,450	1,067	3,140	8.46	2.02	5.97
Total of all weirs ...	18,497	62,422	38,681	42,666	3.37	2.09	2.30

The cause of the excess in the expenditure on head-works is summarised as follows by the Superintending Engineer:—

*Naraj weir.*—Extra expenditure incurred on repairs to shutters and damage caused by flood.

*Mahanadi weir.*—Expenditure less on ordinary repairs, and only a small portion of flood damage was charged during the year.

*Beropa.*—Extensive repairs were done to the tail apron of the right shore sluice, and also to the weir.

*Brahmini.*—Expenditure normal.

*Pattia.*—Additional packing below the line of cribs was required.

*Byturni.*—The apron was scoured in five places during the high flood, which were repaired with gabions filled with rubble.

*Burra.*—A large sum was expended in repairing the shutters.”

MAIN AND  
BRANCH  
CANALS.

31. The expenditure on each canal for the last three years is shown below:—

CANALS.	1890-91.			1891-92.			1892-93.		
	Miles.	Cost.	Per mile.	Miles.	Cost.	Per mile.	Miles.	Cost.	Per mile.
11	2	3	4	5	6	7	8	9	10
	No.	Rs.	Rs.	No.	Rs.	Rs.	No.	Rs.	Rs.
Kendrapara ...	39	30,723	787	39	24,450	627	39	40,132	1,030
Ditto extension ...	15	1,835	122	15	2,442	163	15	7,439	509
Gobri ...	15	8,448	563	15	10,286	685	15	7,747	516
Do. extension ...	6	14,406	2,401	9	7,516	835	9	5,604	566
Pattamundi ...	47	9,972	212	47	4,307	93	47	8,328	181
Taldundah ...	27	6,471	239	51½	7,587	146	51½	14,051	271
Machgong ...	32	5,405	172	32	6,671	208	32	11,165	349
High Level, Bango I ...	33	12,047	364	33	9,160	277	33	8,914	270
Ditto, do. II ...	124	3,757	300	124	4,071	329	124	6,836	547
Ditto, do. III ...	19	5,589	294	19	4,007	211	19	6,870	362
Jajpur Canal ...	6½	1,033	158	6½	1,275	196	6½	1,932	297
Total ...	253	99,746	395	279½	82,741	295	279½	1,18,818	425

The expenditure was in almost every case in excess of that of the previous year. The causes, fully described by the Superintending Engineer, were briefly as follows. On the Kendrapara, Pattamundi, Taldunda and Machgong canals, the damages caused by the great Mahanadi flood of July 1892 and by the cyclone of that year were considerable and necessitated a heavy outlay in repairs. A portion of the Kendrapara canal bank had to be raised to bring it above high flood level, and extra expense was incurred in revetting the inner banks of that canal and in silt-clearance from a sluice channel. The renewal of the Beribatty lock-gates on the Taldundah Canal and the dredging of silt, the result of breaches, were also costly works.

On the High Level Canal a very high flood in the Pattia caused much damage, and the repairing of this and the increased cost of masonry works explain the increased maintenance charges.

32. The average mileage rate for the maintenance of distributaries was Rs. 39.06 as compared with Rs. 20.94 in the previous year:—

DISTRIBUTARIES.

1	1890-91.			1891-92.			1892-93.		
	Miles.	Cost	Per mile	Miles.	Cost.	Per mile.	Miles.	Cost.	Per mile.
2	3	4	5	6	7	8	9	10	
DISTRIBUTARIES	No	Rs.	Rs.	No	Rs	Rs.	No.	Rs.	Rs.
Kendrapara Canal System ..	977	0 975	22 94	357	6 57½	18 41	357	14,420	40 49
Taldundah Canal	71½	1 95½	27 91	71½	1 106	16 30	71½	3,784	53 98
Machgong Canal ...	122½	4 084	33 41	122½	2 75½	22 52	122½	6 014	41 17
High Level Canal, Range I	131½	3 161	30 18	131½	2 66½	20 29	131½	2,945	22 43
Ditto, do II									
Ditto, do III	49½	2 01½	4 80	49½	2,169	43 80	40½	2,184	43 71
Pattamundi Canal							37½	680	18 25
Total	731½	21,942	30 06	711½	15,324	21 04	708½	30,033	39 06

The lengths of distributaries in the above are those which have been brought on the revenue account and consequently differ from the lengths given in paragraph 13 which include all so far advanced as to be fit for use, whether the capital account is still open or not.

The increased cost of distributaries was due to the expenditure on repairs to flood damage and to the thorough repairs of the beds of the distributaries which were levelled, cleaned from silt, and supplied with datum blocks, and the outlets provided with shutters.

33. The most important works under this head were raising the Kendrapara canal and flood embankments, and the repairs to the ombankments on the High Level Canal. The total expenditure on drainage and protective works was Rs. 14,525 against Rs. 10,389 in 1891-92.

DRAINAGE AND PROTECTIVE WORKS.

34. The cost of silt-clearing and dredging during the year 1892-93 is given in the following table:—

DREDGING AND SILT CLEARING.

1	Silt-clearing.			Dredging.		
	Quantity.	Cost.	Rate per 1,000 c. ft.	Quantity.	Cost.	Rate per 1,000 c. feet.
2	3	4	5	6	7	
	C. feet.	Rs.	Rs.	C. feet.	Rs.	Rs.
Kendrapara Canal ...	173,850	7,568	4 22	630,817*	4,286	6.79
" Extension	...	...	...	...	...	...
Pattamundi Canal ...	104,270	209	2 00	...	...	...
Gobri Canal	153,427	338	2 20	...	...	...
" Extension	202,294	638	3 15	157,831	1,008	6 89
High Level Canal, Range I	787,806	2,034	2 58	...	...	...
Taldundah Canal ...	556,448	1,964	3.53	622,984	2,959	4.75
Machgong Canal ...	84,581	158	1 87	...	...	...
High Level Canal, Range II	356,249	891	2.50	...	...	...
Jajpur Canal	...	...	...	...	...	...
High Level Canal, Range III	497,783	1,244	2 50	...	...	...
Total ...	4 536,708	15,044	3 31	1,411,632	8,333	6.90

\* Inclusive of 267,626 cubic feet hand dredged during the rains.

Compared with the previous year the rate for silt clearing was slightly higher on the Gobri Extension and High Level Canals, and less on all the other canals.

35. Three combined post and telegraph offices were opened during the year at Jagatpur, Kendupatna and Aquapada, this department giving a guarantee for three years of a gross receipt of Rs. 400 from each office and undertaking

TELEGRAPH OFFICES.

to make good by a charge against the canal revenue any difference between that sum and the actual receipts.

A statement is subjoined showing the working of each of the Telegraph offices:—

NAME OF TELEGRAPH OFFICE.	Service telegrams.		Private telegrams.		Total.		Number of telegrams received.		Date of opening of the office.
	Number.	Amount.	Number.	Amount.	Number.	Amount.	Service.	Private.	
Jagatpore ...	88	...	79	...	167	Rs. 149 6 0	99	40	1st July 1892.
Kendupatna ...	...	...	...	...	420	440 13 0	283		Ditto.
Aquapada ...	52	...	120	...	172	188 15 0	58	57	3rd July 1892.

The Superintending Engineer remarks:—

"The receipts from the Kendupatna Telegraph office exceeded the amount guaranteed by Government. This office it is reported is now being largely used by the merchants and other private parties, and the total receipts from April to August 1893 amounted to Rs. 206. Additional accommodation for the office has been asked for, which is under consideration, and traffic in the other two offices is reported to have increased since April 1893."

PLANTATIONS. 36. The following table shows the state of the plantations for the last two years:—

Year.	Trees over 12 feet.	Saplings from 1 to 12 feet.	Seedlings below 4 feet.	Total.
1	2	3	4	5
1891-92 ...	No. 66,307	No. 34,469	No. 23,244	No. 124,020
1892-93 ...	78,976	31,018	32,462	142,456

#### MIDNAPORE CANAL.

CAPITAL ACCOUNT. 37. The Capital, Interest, and Revenue Accounts of this Canal are given below:—

##### 1.—CAPITAL ACCOUNT.

HEADS OF ACCOUNT.	Outlay during 1892-93.	Outlay to the end of 1892-93.
1	2	3
Direct charges ...	Rs. ...	Rs. 82,90,269
Less—Receipts on Capital Account ...	...	31,558
Total direct charges ...	...	82,58,711
Indirect charges ...	...	1,84,133

This canal is no longer classed as a productive work, and all capital expenditure is now, in accordance with the orders of the Government of India, charged to the head 43—Minor Works and Navigation, and provided from Provincial funds. There was no expenditure under this head during the year under review.

2.—INTEREST ACCOUNT.

		Rs.
Interest charges to end of 1891-92	...	64,09,199
Ditto for 1892-93	...	8,30,318
Total	...	67,39,547

INTEREST  
ACCOUNT.

3.—REVENUE ACCOUNT (Actuals).

REVENUE  
ACCOUNT.

PARTICULARS.	EXPENDITURE.		PARTICULARS.	RECEIPTS.	
	During 1891-92.	During 1892-93.		During 1891-92.	During 1892-93.
1	2	3	4	5	6
	Rs.	Rs.		Rs.	Rs.
DIRECT CHARGES.					
I.—Maintenance and repairs	2,28,301	1,55,732	Water-rates ...	1,32,981	1,49,057
II.—Revenue management ...	29,023	30,669	Navigation ...	1,32,572	1,14,141
			Miscellaneous ...	19,147	16,979
Total direct charges ...	2,57,324	1,86,401	Total ...	2,84,700	2,80,177
INDIRECT CHARGES ...	9,002	9,149	Less—Refunds of revenue ...	3	176
Total working expenses	2,66,326	1,95,550	Total receipts ...	2,84,697	2,80,001
Net revenue ...	18,371	84,451			
Total ...	2,84,697	2,80,001			

NOTE.—The details by heads of expenditure for the year 1892-93 and nine preceding years will be found in the table given in paragraph 39 following.

38. The net result, calculated on the earnings as opposed to collections, and actual outlay for the year 1892-93 and the preceding year is shown below:—

EARNINGS.		1891-92.	1892-93.
		Rs.	Rs.
Irrigation ...	...	1,29,245	1,40,000
Navigation ...	...	1,32,572	1,14,141
Miscellaneous ...	...	19,147	16,979
Total ...	...	2,80,964	2,71,120
Deduct refunds of revenue		3	176
Net earnings ...	...	2,80,961	2,70,944
Outlay ...	...	2,66,326	1,95,550
Net profit ...	...	14,635	75,394

EARNINGS.

FINANCIAL  
RESULTS.

39. The receipts on Revenue Account and Working Expenses of the Midnapore Canal during the last ten years are shown below :—

PARTICULARS.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6	7	8	9	10	11
<b>RECEIPTS.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>
Water-rates ... ..	1,31,000	1,16,807	1,08,709	1,08,834	90,837	91,016	1,16,424	1,15,438	1,32,981	1,40,067
Navigation ... ..	1,20,560	1,28,747	1,37,678	1,09,093	1,20,574	1,40,480	1,48,164	1,12,754	1,32,572	1,14,141
Miscellaneous ... ..	12,908	12,401	16,197	15,658	16,007	11,299	13,016	9,004	10,147	10,079
<b>Total ...</b>	<b>2,64,570</b>	<b>2,57,955</b>	<b>2,62,484</b>	<b>2,33,585</b>	<b>2,34,378</b>	<b>2,51,795</b>	<b>2,77,004</b>	<b>2,37,196</b>	<b>2,64,700</b>	<b>2,60,177</b>
<b>Less—Refunds of revenue</b>	<b>44</b>	<b>112</b>	<b>...</b>	<b>211</b>	<b>453</b>	<b>285</b>	<b>181</b>	<b>205</b>	<b>3</b>	<b>176</b>
<b>Total receipts ...</b>	<b>2,64,526</b>	<b>2,57,843</b>	<b>2,62,484</b>	<b>2,33,374</b>	<b>2,33,925</b>	<b>2,51,510</b>	<b>2,77,423</b>	<b>2,36,991</b>	<b>2,64,697</b>	<b>2,60,001</b>
<b>WORKING EXPENSES.</b>										
<b>DIRECT CHARGES.</b>										
<b>I.—Works, maintenance, and repairs.</b>										
Works (extensions and improvements) ... ..	...	...	83	...	...	...	...	...	...	3,736
Repairs (including compensation) ... ..	1,27,658	1,34,036	1,24,774	1,37,792	1,31,181	1,06,391	1,13,507	1,05,038	1,41,292	87,430
Establishment, including direction and accounts	29,342	30,822	28,651	31,677	46,467	36,111	29,753	30,502	35,278	34,081
Tools and plant ... ..	31,220	26,591	25,052	25,003	31,409	24,336	27,612	23,929	51,761	29,885
<b>Total ...</b>	<b>1,88,220</b>	<b>1,91,419</b>	<b>1,79,460</b>	<b>1,94,432</b>	<b>2,09,057</b>	<b>1,66,836</b>	<b>1,70,872</b>	<b>1,68,529</b>	<b>2,28,301</b>	<b>1,55,732</b>
<b>II.—Revenue management.</b>										
Irrigation establishment	19,802	24,004	22,790	24,154	22,797	25,927	21,903	22,809	21,273	23,011
Navigation ditto ...	7,511	7,690	7,610	7,575	7,759	7,550	7,710	7,711	7,750	7,658
<b>Total ...</b>	<b>27,373</b>	<b>31,615</b>	<b>30,400</b>	<b>31,729</b>	<b>30,556</b>	<b>33,477</b>	<b>29,622</b>	<b>30,520</b>	<b>29,023</b>	<b>30,669</b>
<b>Total direct charges ...</b>	<b>2,15,602</b>	<b>2,23,032</b>	<b>2,09,860</b>	<b>2,26,161</b>	<b>2,39,613</b>	<b>2,00,302</b>	<b>2,00,494</b>	<b>1,99,049</b>	<b>2,57,324</b>	<b>1,86,401</b>
<b>Indirect charges ...</b>	<b>7,940</b>	<b>8,741</b>	<b>8,207</b>	<b>8,877</b>	<b>10,783</b>	<b>9,742</b>	<b>8,313</b>	<b>9,811</b>	<b>9,002</b>	<b>9,149</b>
<b>Total working expenses ...</b>	<b>2,23,542</b>	<b>2,31,803</b>	<b>2,18,067</b>	<b>2,35,038</b>	<b>2,50,396</b>	<b>2,09,044</b>	<b>2,08,807</b>	<b>2,08,860</b>	<b>2,66,326</b>	<b>1,95,550</b>
<b>Net revenue ...</b>	<b>40,980</b>	<b>26,040</b>	<b>44,357</b>	<b>(—) 1,064</b>	<b>(—) 16,471</b>	<b>41,706</b>	<b>68,617</b>	<b>28,131</b>	<b>18,371</b>	<b>84,461</b>

LENGTHS OF  
CANALS AND  
DISTRIBUTARIES.

40. No alteration was made in the length of the canal open for navigation during the year, which was 72 miles, nor were any additions made to the areas protected or commanded. The following table gives particulars of the canals and distributaries and the areas protected, commanded, irrigable, and assessed :—

NAME OF CANAL.	1891-92.							1892-93.								
	Navigable canals.	Canals for irrigation only.	Distributaries and village channels.	Area protected from floods.	Area under command.	Area provided with distributaries.	Area irrigated.	Percentage of area irrigated to area with distributaries.	Navigable canals.	Canals for irrigation only.	Distributaries and village channels.	Area protected from floods.	Area under command.	Area provided with distributaries.	Area irrigated.	Percentage of area irrigated to area provided with distributaries.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Under Midnapore weir	Miles. 44	Miles. ...	Miles. 286	Acres. 294,400	180,000	Acres. 100,000	Acres. 77,031	77.6	Miles. 44	Miles. ...	Miles. 286	Acres. 294,400	180,000	Acres. 100,000	Acres. 82,642	82.6
Under Panchkurah weir	12	...	35	112,640		23,000	5,958	25.9	12	...	35	112,640		23,000	7,600	33.4
Tidal reaches, Ranges I and II ...	16	...	18	30,080		2,000	376	18.8	16	...	18	30,080		2,000	885	44.2
Total Canals Midnapore	72	...	339	437,120	180,000	125,000	83,973	67.2	72	...	339*	437,120	180,000	125,000	91,317	78.9

\* The length of distributaries during the year was the same as that of last year, viz., 283.19 miles.

41. The area commanded by distributary channels and the number of outlets in use in the Division are shown below :—

PORTION OF CANAL.	Total length of channel.	Area commanded.	NUMBER OF TEMPORARY OUTLETS.		NUMBER OF PERMANENT OUTLETS.	
			1891-92.	1892-93.	1891-92.	1892-93.
1	2	3	4	5	6	7
	Milos.	Acres.				
Under Midnapore weir ...	229.94	100,000	1,260	1,294	55	55
Do. Panchkurah weir ...	35.25	23,000	202	202	10	10
Do. Tidal Reaches, Ranges I and II ...	18.00	2,000	6	6	11	11
Total ...	283.19	125,000	1,468	1,502	76	76

42. The rainfall during the year and during the four previous years at four stations which lie within the area irrigated by the canal is shown in the statement below :—

STATIONS.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	Average of former years.	
						No. of years.	Average rainfall.
1	2	3	4	5	6	7	8
	Inches.	Inches.	Inches.	Inches.	Inches.		Inches.
Midnapore ...	68.00	48.71	57.64	55.68	44.44	24	55.72
Panchkurah ...	59.47	61.78	55.84	41.60	39.95	24	54.91
Luchmapore ...	60.93	45.61	59.30	57.48	47.13	8	56.95
Mowah ...	60.14	31.89	49.93	53.07	33.60	8	51.91
Average ...	62.13	44.48	55.68	51.81	41.28	...	54.87

The total rainfall was considerably below the average, and its distribution was very much the same as last year. The following table shows the amounts which fell during the kharif season :—

	Midnapore.	Panchkurah.	Luchmapore.	Mowah.	Average. 1892-93.	Average. 1891-92.
1	2	3	4	5	6	7
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
July ...	6.71	8.72	9.78	5.17	7.60	9.18
August ...	5.02	4.98	5.94	4.27	5.05	18.30
September ...	6.62	6.67	7.76	5.10	6.51	11.02
October ...	2.62	3.39	4.04	4.03	3.50	1.17
Total, kharif season, 1892-93.	20.77	23.76	27.52	18.57	22.66	39.97
Do, 1891-92 ...	42.51	30.07	44.84	42.50	39.97	.....

43. The floods in the Cossye and Silye rivers were not abnormally high and did no damage. The highest gaugo-readings of the river Cossye at Midnapore and Panchkurah above and below weir, and those of the river

Rupnarain at Dainau and Kantapukhur, are shown in the statement below, the readings being the height in feet above mean sea level :—

River.	Locality.	1891-92.		1892-93.		HIGHEST RECORDED.	
		Date.	Reading.	Date.	Reading.	Date.	Reading.
1	2	3	4	5	6	7	8
Cossye	Midnapore above weir	14th August 1891	87.80	17th June 1892	86.10	1868	92.30
	Ditto below weir	Ditto	80.00	Ditto	79.00	Do.	91.55
	Panchkurah above weir	Ditto	33.50	19th July 1892	32.10	10th October 1876	38.00
	Ditto below weir	Ditto	31.90	Ditto	31.60	Ditto	34.30
Rupnarain	Dainau	19th August 1891	14.20	9th September 1892	15.40	26th August 1885	17.36
	Kantapukhur	Ditto	13.80	Ditto	15.20	Ditto	16.80

The greatest discharge of the Cossye during the year was 38,778 cubic feet per second on the 17th June 1892. After July the discharge diminished rapidly. The minimum discharge occurred on the 1st February 1893, when only 21 cubic feet per second was registered.

44. The area of each crop irrigated during 1891-92 and the nine previous years exclusive of unleased areas compared with the yearly rainfall is shown below :—

YEAR.	Khariif.	Rabi.	Perennial.	Total.	Rainfall.
1	2	3	4	5	6
	Acres.	Acres.		Acres.	Inches
1883-84	97,919	...	...	97,919	47.99
1884-85	69,294	1,835	...	69,294	53.01
1885-86	68,769	...	...	70,604	81.28
1886-87	69,762	...	...	69,762	53.05
1887-88	64,702	1,162	...	65,864	22.08
1888-89	66,408	3,369	...	69,777	62.13
1889-90	68,370	410	...	68,810	44.47
1890-91	82,002	...	...	82,002	55.68
1891-92	83,905	68	...	83,973	51.81
1892-93	91,217	...	...	91,217	41.28

\* Mean of observations of two stations—Midnapore and Panchkurah.

† Average of four stations throughout the irrigated areas under the Midnapore and Panchkurah weirs.

The area irrigated during the year was 91,217 acres, as compared with 83,973 acres of the previous year, thus showing an increase of 7,244 acres. The Superintending Engineer gives the following extracts from the Executive Engineer's report :—

"Owing to the almost total failure in the rains from August to October, the demand for canal irrigation during these months was very great. The only way it was possible to meet this demand was to supply the distributaries in rotation, and even then in the long distributaries, irrigation would be only carried out from half their lengths at one time. When the demand on the upper half of a distributary had been fairly met, all the outlets were taken out and the water forced down to the lower half. This was the only way in which anything like a fair distribution of the available supply could be effected. The removal of outlets produced some discontent among the lessees, who in one or two instances proceeded to cut the distributary banks. They were, however, caught in the act and handed over to the police and punished."

This is not a satisfactory system of management, but until masonry outlets are provided, at any rate in the upper halves of distributaries, it appears unavoidable.

The Executive Engineer states :—

"The discharge of the Cossye river went down on the 23rd October to 138 cubic feet per second, while the average discharge of the whole month was about 700 cubic feet per second. It was at this time that the greatest demand for irrigation arose; 90,000 acres were under lease, and every man wanted his fields to be irrigated at once. Excepting a few acres on high lands, which it was impossible to get at, the whole of the leased area received from two to four waterings during the season. The outturn was on most distributaries magnificent. Indeed, the cultivators state that they have not reaped such an excellent harvest for a very long time."



Unirrigated crops in this district to the south and west of Midnapore almost entirely failed.

45. The areas under lease at the beginning of the year, the progress of leasing during the year, and the leases which remained in force after its close, are given in the following table. The figures do not include assessments for illicit irrigation for which leases were executed after 31st March 1892:—

LEASES.

PARTICULARS.	KHARIF.			Sugarcane and other perennial irrigation.	Rabi.	Total.
	Long leases.	Annual leases.	Surroptitious irrigation.			
1	2	3	4	5	6	7
Leases in force at the end of 1891-92 ...	Acres. 83,905	Acres. 68	Acres. ...	Acres. ...	Acres. ...	Acres. 83,973
.. which expired at the end of 1891-92 ...	17,183	68	...	...	...	17,251
.. in force at the beginning of 1892-93 ...	66,773	83	20	...	...	66,773
.. executed during 1892-93 ...	24,342	...	...	...	...	24,445
.. in force during the year 1892-93 ...	91,114	83	20	...	...	91,217
.. which expired at the end of 1892-93 ...	35,297	83	20	...	...	35,400
.. current on the 1st April 1893 ...	55,817	...	...	...	...	55,817
.. renewed after 1st April 1893 owing to excessive and untimely rainfall of 1893-94 ...	7,968	...	...	...	...	7,968

46. The duty obtained from the gross discharge during the past three years is detailed in the following statement:—

DUTY OF WATER.

PARTICULARS.			Under Midnapore weir.	Under Panch-kurah weir.
1	2	3	4	5
1890-91 Kharif ...	Acres ...	...	76,645	4,981
.. Duty on gross supply ...	...	...	160	89
1891-92 Kharif ...	Acres ...	...	77,631	5,898
.. Duty on gross supply ...	...	...	172	64
1892-93 Kharif ...	Acres ...	...	82,642	7,690
.. Duty on gross supply ...	...	...	138	54

The duty is still high, though owing to the scanty rainfall it is below that obtained in the preceding year.

47. No experiments on outturn of crops were carried out during the year.

CROP EXPERIMENTS.

48. The balances, assessments, and recoveries of water-rates on the Midnapore Canal during the last five years are shown in the following statement:—

ASSESSMENTS, COLLECTIONS, AND BALANCES.

YEAR.	Amount outstanding at commencement of year.	Amount falling due during the year.	Total for recovery.	Cash realization.	Remitted or written off.	Balance at the end of the year.
1	2	3	4	5	6	7
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1888-89 ...	56,493	1,23,337	1,79,830	91,016	4,041	84,773
1889-90 ...	84,773	1,17,202	2,01,975	1,16,424	34,907	50,644
1890-91 ...	50,644	1,30,595	1,81,239	1,15,438	834	64,967
1891-92 ...	64,967	1,29,822	1,94,789	1,32,981	2,836	58,972
1892-93 ...	58,972	1,39,990	1,98,962	1,49,057	1,388	48,567

The figures in the above statement have been furnished by the Special Deputy Collector in charge of the new Revenue Division formed during the year under the orders of the Superintending Engineer, and agree with those given in the Examiner's memorandum. They show an improvement in all items. The assessments of the year are Rs. 10,168 and the realizations Rs. 16,076 in excess of the figures of the previous year, while the remissions are Rs. 1,498 less than in 1891-92, and the balance for recovery has decreased by Rs. 10,415. This balance, however, was much in excess of what it should have been with so small a demand. Since the close of the year it has been greatly reduced. The failure of rainfall leading to a large demand for water is the cause of the increase in assessments.

ARREARS.

49. In the following table, arrear and current dues are distinguished, the sums composing the demand being distributed by the years in which they were earned, and the proportions of each year's earnings, recovered or remitted, are separately shown:—

YEAR.	Amount previously due and unrealised.	Amount falling due within the year.	Total amount due to end of the year.	ADJUSTMENT OF THE YEAR.				Balance unrealised at end of the month of March 1893.
				Cash recoveries.	Remission authorised.	Written off as being irrecoverable.	Total.	
1	2	3	4	5	6	7	8	9
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1888-89 ...	625 5 3 —200 7 6	...	358 13 9	80 1 6	8 6 3	...	88 1 9	270 12 0
1889-90 ...	0 7 9 —231 12 0	43 6 0	275 9 9	263 11 6	11 10 6	...	275 0 0	0 3 9
1890-91 ...	4,441 13 3 +34 11 6	832 5 0	5,308 14 3	1,020 4 6	586 15 3	...	4,997 3 9	701 10 6
1891-92 ...	53,084 10 9	2,245 8 9	56,150 3 6	51,001 11 6	231 5 9	...	52,233 1 3	3,917 2 3
1892-93 ...	...	1,36,868 13 9	1,36,868 13 9	33,191 9 9	...	...	33,191 9 9	43,677 4 0
Total ...	58,972 5 6	1,39,590 1 6	1,98,503 7 0	1,19,657 6 9	1,337 15 9	...	1,50,305 6 0	48,567 0 6

Those figures show that the total amount collected or otherwise adjusted during the year was 75·5 per cent. of the amount due for water-rates, against a percentage of 69·8 last year.

REMISSIONS.

50. The remissions granted during the year were as follows:—

	Rs.
By Collector under rule 27	1,135
Remissions granted by officers disposing of certificate objections ..	241
Ditto by Government, vide letter No. 4391.A., dated	
the 2nd April 1892	223
Total	1,599

Of this sum, Rs. 261 are for miscellaneous revenue. Deducting this amount from the total remissions, there remains a balance of Rs. 1,338, which is the figure shown in the foregoing statements.

CERTIFICATES.

51. The following statement gives particulars of the number of certificates issued and disposed of during the year:—

MIDNAPORE.				
PARTICULARS.	1891-92.		1892-93.	
	No.	Amount.	No.	Amount.
1	2	3	4	5
<i>Cases for disposal.</i>				
1. Cases pending at the close of the preceding year ...	1,958	Rs. 6,085	449	Rs. 3,572
2. Cases instituted during the year ...	3,428	17,765	1,223	9,080
Total	5,386	23,850	1,672	12,652
<i>Cases disposed of.</i>				
1. By being struck off, owing to the demand having been remitted.	1,422	6,239	153	1,384
2. By being wholly satisfied	3,515	14,039	1,163	9,306
Total	4,937	20,278	1,316	10,690
Balance outstanding at the close of the year	449	3,572	356	1,962

The decreases which occurred in the number of cases instituted and the balance outstanding at the end of the year are satisfactory.

Out of the total number of 1,672 certificates for disposal, 142 were for surreptitious irrigation, and 1,530 for satisfaction of demands under kabuliyats. Of the 153 cases struck off, 142 were on account of illicit irrigation and 11 for satisfaction of demands under kabuliyats. The percentage of disposals is 78.1, against 91.66 in the preceding year. Out of 356 cases pending on the 31st March 1893, only 25 remained pending on the 14th August 1893.

52. The following table shows the number of complaints filed during the last two years, and how they have been disposed of:—

YEAR.	Class of complaints.	RECEIVED.			DISPOSED OF.			BALANCE PENDING AT END OF THE YEAR.		
		Balance pending from previous year.	Received during the year.	Total.	Allowed.	Refused.	Total.	Received during previous years.	Received during the year.	Total.
1	2	3	4	5	6	7	8	9	10	11
1891-92 ...	Ordinary remission ..	103	474	577	112	407	519	...	...	58
	Other complaints ..	67	152	219	20	156	182	...	...	37
	Total ..	170	626	796	138	563	701	...	...	95
1892-93 ...	Ordinary remission ..	58	182	240	60	152	212	...	...	28
	Other complaints ..	37	159	196	45	110	155	...	...	41
	Total ..	95	341	436	105	262	367	...	...	69

The number of cases received during the year was only 341 compared with 626 of 1891-92. Of the total number of 436 cases, of which 95 were complaints pending on the 1st April 1892, 367 were disposed of during the year, and of this number 28.6 per cent. were established and 71.4 per cent. rejected.

53. The following statement compares the cost of the revenue establishment during the last five years:—

REVENUE  
ESTABLISH-  
MENT.

ESTABLISHMENT UNDER THE COLLECTOR.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6
	Rs.	Rs.	Rs.	Rs.	Rs.
Permanent establishment, including travelling allowances ...	20,474	18,984	19,757	17,947	20,263
Temporary establishment ...	660	604	649	682	441
Contingencies ...	1,459	1,253	1,260	1,154	1,014
Headman's fees ...	2,135	49	60	335	375
Total ...	24,728	20,890	21,726	20,118	22,093

In addition to the amounts specified in the foregoing table, the following sums were paid by the Executive Engineer for water regulation:—

		Water-regulation.	
		Permanent.	Temporary.
		Rs.	Rs.
1888-89 ...	...	546	653
1889-90 ...	...	480	533
1890-91 ...	...	488	595
1891-92 ...	...	473	682
1892-93 ...	...	419	500

The cost of collection was 14·07 per cent. on the amount realised, against 15·1 per cent. in 1891-92.

NAVIGATION.

54. The total tollage receipts of the year were Rs. 1,14,141, against Rs. 1,32,572 in 1891-92. The Superintending Engineer makes the following comments on this decrease:—

"The total tollage receipts of the year were Rs. 1,14,141, against Rs. 1,32,572 of the year before. The revenue from tolls on private boats was slightly less as compared with that of the last year, but the total number of passengers was far in excess, viz. 205,804, against 163,836 for 1891-92. The tolls realised from the Calcutta Steam Navigation Company show a decrease of Rs. 12,114 and that from country boats Rs. 6,317. The falling off in the collections of the year is solely due to the failure of the rice crop in parts of the Midnapore district. There was hardly any export of rice or paddy from the south and south-west of Midnapore from October to January. While the receipts from rice and paddy fell, those from other items of import, such as metal, oil-seeds, salt and miscellaneous goods, show an increase over the previous year."

There was a decrease of 14,514 tons of rice and 2,485 tons of paddy carried on the Midnapore Canal as compared with that carried in the previous year.

TRAFFIC.

The usual particulars regarding the traffic carried in vessels, including those of the Calcutta Steam Navigation Company for the last ten years are given below:—

DESCRIPTION.	1883-84.	1884-85.	1885-86	1886-87.	1887-88	1888-89.	1889-90.	1890-91	1891-92.	1892-93.
1	2	3	4	5	6	7	8	9	10	11
Miles open ... No.	72	79	72	72	72	79	72	72	72	72
Toll collections ... Rs.	1,04,931	1,10,797	1,25,331	1,01,054	1,06,440	1,25,332	1,16,409	89,556	(a) 1,32,572	(a) 1,14,141
Rate of toll per mile ..	2,055	2,200	2,361	1,908	2,048	2,365	2,190	1,089	1,724	1,606
Number of boats, including empty boats No.	52,060	47,053	42,240	45,709	40,028	54,214	52,060	45,054	42,323	40,438
Tonnage of boats ... Tons	382,479	412,379	373,208	387,140	400,866	470,806	462,418	417,803	411,802	4,10,062
Passengers carried ... No.	170,743	111,257	122,094	208,582	190,567	167,259	176,226	187,700	163,836	(b) 205,804
Estimated value of cargo, including rafts ... Rs.	1,70,53,400	1,57,52,097	1,27,22,175	97,25,587	1,18,44,844	1,31,70,200	1,45,12,442	1,48,33,391	1,26,65,724	1,20,04,204

(a) Inclusive of tolls (Rs. 41,180 and 29,006) paid by the Calcutta Steam Navigation Company.

(b) Inclusive of passengers (22,257) carried by the Calcutta Steam Navigation Company's steamers.

MISCELLANEOUS RECEIPTS.

55. The table below shows the miscellaneous receipts for the last five years:—

DETAILS.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6
	Rs.	Rs.	Rs.	Rs.	Rs.
Sale of water ...	...	...	...	...	10
Plantations ...	...	35	52	40	34
Other canal produce ...	4	299	37	5	1
Rent of buildings ...	727	738	721	711	740
Miscellaneous { Rent of lands	7,182	7,984	6,079	8,758	8,586
" of fisheries	1,084	812	736	4,447	1,162
Cost of process	1,113	2,400	1,009	2,516	1,280
Other items ...	1,189	748	370	2,670	5,166
Total ...	11,299	13,016	9,004	19,147	16,979

MAINTENANCE AND REPAIRS.

56. The following figures show the actual cost of maintenance and repairs during the last three years distributed by subheads:—

	1890-91.	1891-92.	1892-93.
	Rs.	Rs.	Rs.
Head works, including buildings ...	11,610	8,373	9,965
Main canal and branches ...	77,323	1,18,241	59,802
Distributaries ...	11,851	10,365	12,612
Drainage and protective works ...	1,151	1,239	2,090
Working steamers ...	3,103	3,044	2,961
Total ...	1,05,038	1,41,262	87,430

57. The expenditure on the Midnapore and Panchkurah head works during the year was Rs. 7,619 and Rs. 2,846, respectively, against Rs. 4,582 and Rs. 3,700 in last year. On weirs the expenditure was at the rate of Rs. 2.08 per foot run at Midnapore, and Rs. 0.46 at Panchkurah, against Rs. 0.80 and Rs. 1.84, respectively, last year. HEAD WORKS AND WEIRS.

58. The outlay on repairs to the main canal, including that on head works, on working steamers, and on drainage works, was Rs. 74,818 against Rs. 1,30,897 in the previous year. This large decrease in the expenditure on general repairs was mainly owing to the thorough repairs carried out in the preceding year when there was a long closure, but is also partly attributable to close supervision. The expenditure on tools and plant was Rs. 29,885 as compared with Rs. 51,761 of the previous year. MAIN CANAL.

59. On distributaries the expenditure on repairs was Rs. 12,612, or Rs. 44 per mile, against Rs. 10,365, or Rs. 36 per mile, in the previous year. The increase was caused by the bringing into use again of one or two distributaries which had practically been abandoned. DISTRIBUTARIES.

60. The milage rates for the last ten years, both for main canals and distributaries, are shown in the following table:—

YEAR.	MAIN CANAL AND HEAD WORKS, &C.			DISTRIBUTARIES.		
	Length of canal open.	Total cost of work.	Rate per mile.	Length of distributary channels.	Total cost of work.	Rate per mile.
1	2	3	4	5	6	7
	Miles.	Rs.	Rs.	Miles.	Rs.	Rs.
1883-84	48	1,06,425	2,216	277	21,195	76
1884-85	48	1,15,171	2,399	277	18,865	68
1885-86	48	1,10,350	2,299	277	14,424	52
1886-87	48	1,20,135	2,503	283	17,617	63
1887-88	48	1,10,494	2,301	283	21,687	74
1888-89	48	83,675	1,743	283	22,464	79
1889-90	48	93,738	1,953	283	19,769	69
1890-91	48	93,187	1,941	283	11,851	41
1891-92	48	1,30,897	2,727	283	10,365	36
1892-93	48	74,818	1,558	283	12,612	44

61. The quantity of silt dredged during the year was 3,825,213 cubic feet, at an average rate of Rs. 5.9 per 1,000 cubic feet, whereas the quantity during the previous year was 4,030,769 cubic feet, and the rate Rs. 4.76. The falling off was due to the dredgers being laid up for repairs for considerable periods. DREDGING AND SILT CLEARING.

The work done by the steam dredgers during the year under review and the cost of working them is shown below:—

NAME OF DREDGER.	Quantity of earth dredged.	Actual cost of lifting.	COST OF REMOVING—		Total.	Lifting rate per 1,000 cubic feet.	Removing rate per 1,000 cubic feet.	Total rate per 1,000 cubic feet
			Steam hopper-barges.	Ordinary hopper-barges.				
1	2	3	4	5	6	7	8	9
	C. ft.	Rs.	Rs.	Rs.	Rs.			
Hector dredger	828,709	4,018	2,015	...	6,033	4.8	2.4	7.2
Ajax ditto	694,420	3,008	1,509	...	4,517	4.3	2.1	6.4
Atlas ditto	1,530,900	4,894	2,454	...	7,348	3.1	1.6	4.7
Combination ditto	247,324	1,795	...	...	1,795	7.2	...	7.2
Marchants ditto	13,000	57	...	...	57	4.3	...	4.3
Cadmus steam excavator	510,860	2,388	...	...	2,388	4.6	...	4.6
S. L. Cricket	...	451	...	...	451	...	...	...
Total for 1892-93	3,825,213	16,611	5,978	...	22,589	4.3	1.5	5.9
Total for 1891-92	4,030,769	13,948	5,276	...	19,219	3.45	1.3	4.76

## PLANTATIONS.

62. The state of the plantations for the last two years is shown in the following statement:—

YEAR.	Trees upwards of 12 feet high.	Saplings between 4 and 12 feet.	Seedlings below 4 feet.	Total.
1	2	3	4	5
1891-92 ...	No. 10,082	No. 10,351	No. 2,452	No. 22,885
1892-93 ...	No. 10,296	No. 10,216	No. 2,346	No. 22,858

## GENERAL RESULTS.

63. The results of the year may be considered on the whole satisfactory. There was a slight falling off in the receipts due to the diminished exports, but there was also a decrease in the cost of maintenance, and the result is a net profit of Rs. 84,451 against Rs. 18,371 of the previous year. The unusually scanty rainfall in September and October which was noticed in 1891-92 was even more pronounced during the year under review and led to a similarly excessive demand for water for kharif irrigation. It is satisfactory to note that 98 per cent. of the leased area was thoroughly irrigated, notwithstanding the difficulties experienced in meeting the heavy demands, and that bumper crops resulted.

## HIJILI TIDAL CANAL.

64. The capital, interest and revenue accounts of this canal are given below:—

## CAPITAL ACCOUNT.

## 1.—CAPITAL ACCOUNT.

HEADS OF ACCOUNT.	Outlay during 1892-93	Outlay to end of 1892-93.
1	2	3
<b>DIRECT CHARGES.</b>	<b>Rs.</b>	<b>Rs.</b>
I.—Works ...	33,820	15,92,236
II.—Establishment ...	2,547	5,35,919
III.—Tools and plant ...	1,952	1,21,004
IV.—Suspense accounts ...	.....	.....
Loss by exchange ...	.....	22,790
<b>Total</b> ...	<b>38,319</b>	<b>22,71,949</b>
V.—Less—Receipts on capital account ...	.....	925
<b>Net total—direct charges</b> ...	<b>38,319</b>	<b>22,71,024</b>
<b>INDIRECT CHARGES.</b>		
Capitalization of abatement of land revenue ...	.....	11,210
Leave and pension allowances ...	357	45,655
<b>Total—indirect charges</b> ...	<b>357</b>	<b>56,865</b>

The works in connection with the remodelling scheme for this canal have been practically completed, with the exception of the new lock at Kalinagar and the arrangements for the supply of Range II. It is expected that a definite decision as to the manner in which these works should be carried out will shortly be arrived at.

## INTEREST ACCOUNT.

## 2.—INTEREST ACCOUNT.

	Rs.
Interest charges to end of 1891-92 ...	15,65,055
Ditto for 1892-93 ...	90,075
<b>Total</b> ...	<b>16,55,130</b>

## 3.—REVENUE ACCOUNT (Actuals).

REVENUE  
ACCOUNT

PARTICULARS.	EXPENDITURE—		PARTICULARS.	RECEIPTS—	
	During 1891-92.	During 1892-93.		During 1891-92.	During 1892-93.
1	2	3	4	5	6
DIRECT CHARGES.	Rs.	Rs.		Rs.	Rs.
I.—Works, maintenance and repairs ...	45,714	27,372	Water-rates ...	...	...
II.—Revenue manage- ment ...	2,955	4,332	Navigation ...	36,318	52,180
Total Direct Charges ...	48,669	31,704	Miscellaneous ...	567	1,282
Indirect charges ...	2,014	1,385	Total ...	36,915	53,462
Total working expenses Not revenue ...	50,683 —13,768	33,089 20,301	Less—Refunds of revenue ...	...	72
Total ...	36,915	53,390	Net Total receipts...	36,915	53,390

NOTE.—The details by heads of expenditure for the year 1891-93 and nine preceding years will be found in the table given in paragraph 65 following.

65. The following statement shows the receipts on revenue account and working expenses for the last ten years:—

FINANCIAL  
RESULTS.

PARTICULARS.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6	7	8	9	10	11
RECEIPTS.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Navigation ...	62,317	41,382	52,143	51,904	40,406	53,921	40,338	27,145	30,348	52,180
Miscellaneous ...	1,273	2,125	312	2,500	1,452	1,240	1,614	809	567	1,282
Total ...	63,590	43,507	52,455	54,404	41,858	55,170	41,952	28,044	36,915	53,462
Less—Refunds of revenue ...				910		73				72
Total Receipts	63,590	43,507	52,455	54,404	41,858	55,097	41,952	28,044	36,915	53,390
WORKING EXPENSES.										
DIRECT CHARGES.										
I.—Works, maintenance, and repairs.										
Works ...						1,718				
Repairs ...	32,974	24,862	34,099	11,938	47,928	50,927	10,713	27,012	32,689	16,447
Establishment, including direction and accounts	7,688	6,178	7,843	2,756	11,875	16,372	4,157	8,636	11,433	5,562
Tools and plant ...	2,784	202	3,524	4,155	2,105	2,808	1,806	13,487	1,693	5,303
Total ...	43,366	33,332	45,466	18,809	61,888	72,078	22,676	49,135	45,714	27,372
II.—Revenue management.										
Navigation establishment ...	3,215	3,554	3,143	3,026	3,007	3,195	3,073	2,833	2,955	4,332
Total Direct Charges	46,581	36,886	48,609	21,835	64,895	75,273	25,749	51,968	48,669	31,704
INDIRECT CHARGES ...	1,512	1,362	1,538	810	2,081	2,777	1,007	1,606	2,014	1,385
Total working expenses	48,093	38,248	50,147	22,735	66,976	78,040	26,722	53,574	50,683	33,089
Net revenue ...	15,497	5,259	2,308	30,769	(-)25,118	(-)22,943	15,230	(-)25,530	(-)13,768	20,301

The cost of maintenance was Rs. 33,089 against Rs. 50,683 of the previous year. The high cost of maintaining this canal has been chiefly owing to the heavy influx of silt. In 1892-93 owing to the improved feeding arrangements by means of supply channels there was no closure for purposes of silt clearance. It will, however, probably be necessary to close the canal in the cold weather of the current year.

## RAINFALL.

66. The rainfall at Contai station was 52·71 inches against 49·97 inches in 1891-92.

## FLOODS.

67. There were no very highfloods in any of the rivers crossed by the Hijili Tidal Canal during the year. The highest gauge readings of the rivers Hooghly, Haldi, and Russulpore are shown in the following statement:—

NAME OF RIVER.	Locality.	1891-92.		1892-93.		HIGHEST RECORD.		REMARKS.
		Date.	Reading.	Date.	Reading.	Date.	Reading.	
1	2	3	4	5	6	7	8	9
Hooghly ...	Gewankhali ..	119th Sept. 1891	115'90	9th Sept. 1892	116'40	Cyclonic storm of 1874.	133'23	* Recorded on plan without date (Mr. Verannes's).
Haldi ...	Etanugra ...	Ditto ...	118'40	Ditto ...	117'20	* Not known ...	120'23	
Russulpore ...	Kahnagar ...	118th Sept. 1891	114'70	Ditto ...	116'30	26th August 1888	118'50	

## NAVIGATION.

68. The usual particulars regarding the traffic on the Hijili Tidal Canal carried in vessels during the last ten years are given in the following statement. The figures include those relating to the steamers belonging to the Calcutta Steam Navigation Company:—

PARTICULARS.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6	7	8	9	10	11
Miles open ... No.	29	29	29	29	29	29	29	29	29	29
Toll collections ... Rs.	82,317	41,382	52,143	(a) 51,304	(a) 40,106	(a) 53,010	(a) 40,341	(a) 27,145	(a) 31,348	(a) 52,180
Rate of toll per mile ...	2,148	1,427	1,798	1,734	1,338	1,700	1,200	821	1,128	1,607
Number of boats, including empty boats ... No.	22,724	17,900	19,316	17,542	13,603	16,481	13,785	10,216	15,332	16,084
Tonnage of boats ... Tons.	106,761	145,424	163,535	149,747	124,003	165,635	124,006	91,114	133,575	161,239
Passengers carried ... No.	...	...	...	8,560	11,951	34,032	(b) 30,222	(b) 22,420	(b) 27,320	(b) 42,488
Estimated value of cargo, including rafts ... Rs.	36,42,020	30,06,853	32,74,061	31,48,826	26,13,351	33,01,125	27,20,720	20,78,972	34,07,725	52,56,550

(a) Inclusive of tolls, Rs. 1,603, Rs. 1,562, Rs. 4,590, Rs. 5,523, Rs. 3,146, Rs. 3,634 and Rs. 5,068 paid by the Calcutta Steam Navigation Company.

(b) Inclusive of passengers, 23,243, 17,554, 21,200, and 31,792, carried by the Company's steamers.

The toll-collections for the year, though still below the figures of 1883-84 and of 1888-89, indicate a decided increase of traffic. The receipts would probably have been much larger if there had not been an indifferent rice crop in Hijili. The introduction of the revised toll tariff will probably give a stimulus to the use of the canal route and still further augment the receipts.

69. The miscellaneous receipts for the last five years are shown below:—

## MISCELLANEOUS RECEIPTS.

1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
Rs.	Rs.	Rs.	Rs.	Rs.
1,249	1,614	899	567	1,282

The increase in the miscellaneous receipts during the year, amounting to Rs. 715, was due to the completion of the remodelling works and to the increased rents realized during the year.

## DREDGING.

70. The amount of silt dredged from the Terapakia and Etanugra lock entrances, and the cost of removal is shown in the statement below:—

NAME OF DREDGER, HOPPER BARGES AND MUD PUNTS.	Cubic feet dredged.	Actual cost of lifting.	COST OF REMOVING.				Lifting rate per 1,000 cubic feet.	Removing rate per 1,000 cubic feet.	Total rate per 1,000 cubic feet.	REMARKS.
			By hopper barges.	By mud punts.	Total.	Total cost of lifting and removing.				
1	2	3	4	5	6	7	8	9	10	11
Dredger "Marchant" and 4 mud punts ...	40,000	Rs. 196	Rs. ...	Rs. 100	Rs. & P. 100 0 0	Rs. & P. 295 0 0	Rs. & P. 4 14 0	Rs. & P. 2 8 0	Rs. & P. 7 6 0	



71. The state of the plantations for the last two years is shown in the following statement:—

YEAR.	Trees over 12 feet in height.	Saplings between 4 and 12 feet	Seedlings under 4 feet.	Total.
1	2	3	4	5
1891-92	No. 2,000	No. 3,116	No. 1,041	No. 6,157
1892-93	2,217	2,934	1,077	6,228

### SONE CANALS

72. The Capital, Interest and Revenue Accounts of these canals are given below:—

#### I—CAPITAL ACCOUNT.

HEADS OF ACCOUNT.	Outlay during 1892-93.	Outlay to end of 1892-93
1	2	3
<b>DIRECT CHARGES.</b>	<b>Rs</b>	<b>Rs</b>
I.—Works ... ..	81,312	1,86,69,549
II.—Establishment ... ..	18,425	51,85,164
III.—Tools and plant ... ..	5,762	21,32,977
IV.—Suspense accounts ... ..	(—) 47,088	1,22,561
Loss by exchange ... ..	.....	52,240
<b>Total</b> ... ..	<b>58,411</b>	<b>2,61,62,791</b>
V.—Less—Receipts on capital account ... ..	2,159	3,74,445
<b>Net total direct charges</b> ... ..	<b>56,252</b>	<b>2,57,88,346</b>
<b>INDIRECT CHARGES.</b>		
Capitalization of abatement of land revenue ... ..	... ..	37,911
Leave and pension allowances ... ..	2,580	8,75,220
<b>Total indirect charges</b> ... ..	<b>2,580</b>	<b>9,13,131</b>

The original Capital estimate of the Sone Canals was closed on the 30th March 1891, and works chargeable to capital which remained to be finished are being carried out under the rules laid down in Chapter XV of the Public Works Department Code. The present sanction is for Rs 7,22,013, out of which Rs 4,39,485 had been expended up to the close of the year. The outlay charged to Capital during the year compared with that of 1891-92 is shown in the following statement:—

I.—Works—	1891-92.	1892-93.
	<b>Rs.</b>	<b>Rs.</b>
(1) Head-works ... ..	2,035	4,696
(2) Main canal and branches ... ..	31,337	15,944
(3) Distributaries ... ..	79,312	40,311
(4) Drainage and protective works ... ..	57,728	11,361
<b>Total works</b> ... ..	<b>1,70,412</b>	<b>81,312</b>
II.—Establishment ... ..	37,083	18,425
III.—Tools and plant ... ..	(—) 1,352	5,762
IV.—Suspense accounts ... ..	(—) 1,715	(—) 47,088
<b>GRAND TOTAL</b> ... ..	<b>2,04,428</b>	<b>58,411</b>
V.—Less—Receipts on capital account ... ..	330	2,159
<b>Net total</b> ... ..	<b>2,04,098</b>	<b>56,252</b>

The works which were executed during the year were:—planting trees at Dehri, the construction of permanent outlets on many distributaries, masonry crossings to carry village channels under district and other roads, the Kunjee drainage cut in the Buxar Division, several other smaller drainage projects, the construction of a quay wall at Nokha on the Buxar Canal, and several other works of less importance.

INTEREST  
ACCOUNT.

## 2.—INTEREST ACCOUNT.

Rs.

Interest charges to end of 1891-92	...	1,65,88,027
Ditto for 1892-93	...	10,30,409
Total	...	1,76,18,436

REVENUE  
ACCOUNT.

## 3.—REVENUE ACCOUNT (ACTUALS.)

PARTICULARS.	EXPENDITURE—		PARTICULARS.	RECEIPTS—	
	During 1891-92.	During 1892-93.		During 1891-92.	During 1892-93.
1	2	3	4	5	6
DIRECT CHARGES.	Rs.	Rs.		Rs.	Rs.
I.—Works, maintenance and repairs	4,81,683	5,23,961	Water-rates ...	8,11,750	9,68,070
II.—Revenue management ...	1,66,377	1,73,730	Navigation ...	66,517	59,089
			Miscellaneous ...	31,827	29,214
Total Direct Charges	6,48,060	6,97,691	Total ...	9,10,094	10,56,373
Indirect Charges ...	49,780	53,556	Less—Refunds of revenue.	4,020	3,792
Total Working Expenses.	6,97,840	7,51,247			
Profit ...	2,08,234	3,01,334			
Total ...	9,06,074	10,52,581	Total Receipts ...	9,06,074	10,52,581

NOTE.—The details by heads of expenditure for the year 1892-93 and nine preceding years will be found in the table given in paragraph 74 following.

## EARNINGS.

73. The earnings as opposed to collections and the actual outlay were as follows:—

	1891-92.	1892-93.
	Rs.	Rs.
Earnings—		
Irrigation ..	9,82,032	8,15,158
Navigation ...	66,517	59,089
Miscellaneous ...	31,827	29,214
Total ...	10,80,376	9,03,461
Deduct refunds of revenue	4,020	3,792
Net earnings ...	10,76,356	8,99,669
Outlay ...	6,97,810	7,51,247
Profit ...	3,78,516	1,48,422

The net earnings include the actual realisations of navigation and miscellaneous revenue, together with the revenue assessed on the irrigation of the year, after deducting refunds. The demand statements for the *rabi* season were mostly despatched after the close of the financial year, but the sums due under them are nevertheless included under earnings, which shows the amount due on account of the irrigation of the year.

The collection of outstanding arrears has helped to swell the receipts. The arrear balance is now small.

74. The receipts on revenue account and working expenses of the canals for the year 1892-93 and the nine preceding years are shown in the statement below :—

FINANCIAL RESULTS.

	1893-94.	1894-95	1895-96.	1896-97.	1897-98	1898-99.	1899-00.	1900-01.	1901-02.	1902-03.
1	2	3	4	5	6	7	8	9	10	11
<b>RECEIPTS.</b>	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs
Water-rates	4,84,309	7,70,350	9,78,333	8,38,461	5,19,590	7,59,550	8,16,304	6,44,718	6,11,790	9,82,979
Navigation	85,193	51,761	46,248	54,254	53,904	57,320	57,759	53,639	66,517	59,089
Miscellaneous ..	34,405	40,354	38,080	57,714	28,459	26,504	23,340	26,126	31,337	22,514
<b>Total</b>	6,03,807	8,62,474	10,62,661	9,18,489	6,03,949	8,43,380	8,97,403	7,26,473	7,10,094	10,64,573
<b>Less—Refunds of revenue</b>	5,429	7,455	10,657	15,737	16,131	12,611	16,520	7,301	4,020	3,793
<b>Total Receipts</b>	5,98,378	8,55,019	10,51,999	9,02,692	5,88,611	8,31,278	8,80,775	7,29,170	7,06,074	10,60,780
<b>WORKING EXPENSES.</b>										
<b>DIRECT CHARGES.</b>										
<i>I—Works, maintenance and repairs</i>										
Works (extensions and improvements)					5,012	10,426	4,713	3,203	3,613	6,541
Repairs including compensation	2,76,335	3,44,838	2,83,315	3,08,766	3,08,149	1,38,182	2,92,992	2,72,831	2,59,832	2,80,879
Establishment including direction and accounts	63,477	79,300	65,163	71,000	2,10,227	1,17,677	1,82,087	1,94,805	1,89,190	2,08,810
Tools and plant	34,983	26,175	32,451	27,698	28,221	33,020	33,480	24,527	24,843	38,031
<b>Total</b>	3,74,795	4,50,313	3,80,921	4,07,464	5,46,429	1,70,205	5,13,811	4,93,516	4,81,683	5,23,461
<i>II—Revenue management</i>										
Irrigation establishment	1,14,005	1,29,318	1,46,025	1,41,000	1,37,243	1,56,240	1,52,823	1,45,528	1,52,113	1,59,300
Navigation ditto	20,248	16,885	14,756	14,535	14,308	14,165	14,305	14,242	14,264	14,430
<b>Total</b>	1,34,253	1,46,203	1,60,781	1,55,535	1,51,551	1,70,405	1,67,128	1,59,770	1,66,377	1,73,730
<b>Total—direct charges</b>	5,09,048	5,96,516	5,41,702	5,63,000	7,01,373	7,42,010	6,80,939	6,53,286	6,48,060	7,07,191
<b>INDIRECT CHARGES</b>										
Capitalization of abatement of land revenue										
Leave and pension allowances	27,642	31,109	31,032	32,097	50,363	51,913	48,171	48,813	40,780	53,556
<b>Total—indirect charges</b>	27,642	31,109	31,032	32,097	50,363	51,913	48,171	48,813	40,780	53,556
<b>Total—working expenses</b>	5,36,690	6,27,625	5,72,734	5,95,097	7,51,736	7,93,923	7,29,110	7,02,099	6,88,840	7,60,747
<b>Net revenue</b>	61,688	2,27,394	4,79,267	3,07,602	(—) 1,01,125	36,846	1,51,665	27,071	2,08,234	3,01,334

Compared with 1891-92 the receipts (less refunds) have increased from Rs. 9,06,074 to Rs. 10,52,581, that is, by Rs. 1,46,507, and the working expenses (direct charges) from Rs. 6,48,060 to Rs. 6,97,691, or by Rs. 49,631. Including indirect charges the net revenue has increased from Rs. 2,08,234 to Rs. 3,01,334. The increase in the working expenses was due mainly to heavy silt clearances in the lower reaches of the Arrah Canal costing over Rs. 18,000 only required every fifth or sixth year, and to increased charges for engineering and revenue establishments amounting to Rs. 19,614 and Rs. 7,187 respectively. The works carried out under the head extensions and improvements were of a minor character, chiefly alterations to bridges. The Eastern Main Canal was closed from the 28th March to the 5th May 1892, and the Western Main Canal from the 6th to the 16th May, for silt clearance, and the lower portion of the Arrah Canal was closed for six weeks for the silt clearance already alluded to.

LENGTHS OF  
CANALS AND  
DISTRIBUTARIES.

75. The following table shows the lengths of canals and distributaries in operation, and the areas commanded, provided with distributaries, and irrigated, at the close of the last two years:—

NAME OF CANAL.	1891-92.								1892-93.							
	Navigable canals.	Canals for irrigation only.	Distributaries and village channels.	Area protected from flood.	Area under command.	Area provided with distributaries.	Area irrigated.	Percentage of area irrigated to area provided with distributaries.	Navigable canals.	Canals for irrigation only.	Distributaries.	Area protected from flood.	Area under command.	Area provided with distributaries.	Area irrigated.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Eastern Sone Division. { Eastern Main ... .. { Patna ... ..	Miles. 7½ 79	Miles. ...	Miles. 9 341½	Acres. ...	Acres. 15,462 300,693	Acres. 15,462 379,787	Acres. 2,000 91,121	10 24	Miles. 7½ 79	Miles. ...	Miles. 9 341½	Acres. ...	Acres. 15,462 300,693	Acres. 15,462 379,787	Acres. 2,000 91,121	
	80½	...	350½	...	406,155	385,180	94,080	23	80½	...	350½	...	406,155	385,180	79,661	
Arrah Divi- { Arrah ... .. sion.         { Dumraon Branch ... .. { Behea Branch ... ..	65½ ... ...	40½ 31	208 149 112	...	229,433 209,817 179,104	229,433 209,817 179,104	72,679 55,330 53,114	31 26 29	65½ ... ...	40½ 31	208 149 112	...	229,433 209,817 179,104	229,433 209,817 179,104	74,558 53,596 52,155	
Dehri Workshops Division— Western Main ... ..	65½ 9	71½ ...	469 ...	...	618,354 ...	618,354 ...	18,123 ...	20 ...	65½ 9	71½ ...	469 ...	...	618,354 ...	618,354 ...	180,309 ...	
Buxar Divi- { Western Main ... .. sion.         { Gurra Chowbey Branch ... .. { Buxar ... .. { Chowma Branch ... ..	12½ ... ... 67½	38 ... 30½ 77½	45½ 56 181½ 388	...	89,480 173,440 233,600 709,000	89,480 114,522 200,569 540,955	62,556 136,954	30 30	12½ ... ... 67½	38 ... 30½ 77½	45½ 56 181½ 388	...	89,480 173,440 233,600 709,000	89,480 114,522 200,569 547,299	35,277 115,514 180,791	
SOME CANALS ...	218½	148½	1,207½	...	1,733,509	1,560,508	474,723	30	218½	148½	1,208	...	1,733,509	1,560,852	410,761	

The Government village channels which in 1891-92 were classed as village channels, have since the close of that year been classed as distributaries. The total length of distributaries was only increased by three quarters of a mile during the year, and the canals are now fully provided with them.

VILLAGE  
CHANNELS AND  
OUTLETS.

76. The length of village channels made by villagers up to the end of 1892-93 and the number of outlets in use during the year are shown below:—

DIVISION.	Total length of village channels completed up to end of 1892-93.	Total number of temporary and perma- nent out- lets in use during 1892-93.	Number of perma- nent out- lets.
1	2	3	4
	Miles.	No.	No.
Eastern Sone ... ..	381½	1,511	786
Arrah ... ..	833½	2,255	1,373
Buxar ... ..	659	1,458	589
Total, 1892-93 ...	1,874	5,224	2,748
Total, 1891-92 ...	1,987	5,943	2,356

The decrease in the length of channels in the Buxar Division is due to the fact that an unusually large number of channels was made during 1891-92 to irrigate the rabi crop of that year, when there was an extraordinary demand for water. These channels have now disappeared. Although there has been a reduction of 719 in the total number of outlets in consequence of the reduced rabi area of the year, which led to the removal of many temporary outlets, it is satisfactory to note that the number of permanent outlets has risen from 2,356 to 2,748.

77. The rainfall during the last five years registered at 22 stations on, or in the neighbourhood of, the Sone Canals is shown below :—

RAINFALL

		AVERAGE OF 22 STATIONS.				
		1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1		2	3	4	5	6
		Inches.	Inches.	Inches.	Inches.	Inches.
Kharif season	August ...	18.49	12.01	14.47	9.11	15.47
	September...	7.35	5.90	6.58	4.09	4.27
	October ...	0.18	0.79	0.99	1.17	0.33
	Total ..	26.02	18.70	22.04	14.37	20.07
Rabi season	November ..	0.48	0.48	.	.....	0.03
	December ...	.. ..	.....	0.01	...	.....
	January ..	1.22	..	1.69	0.13	0.61
	February ..	1.30	0.01	0.32	1.03	2.07
	Total ..	2.98	0.49	2.09	1.16	2.71
Whole year ...		47.34	39.27	52.86	29.12	38.36

The average rainfall for twenty years is 40.48 inches.

78. There was no high flood in the Sone during the year, and the figures below show the highest level the water rose to, compared with the previous year and with the highest recorded flood. The R. L. of the crest of the weir is 334.00 :—

FLOODS.

RIVER SONE

LOCALITY.	1892-93—22ND JULY 1892.		1891-92—9TH AUGUST 1891.		HIGHEST KNOWN, 1876-77—7TH JULY 1876.	
	Above weir.	Below weir.	Above weir.	Below weir.	Above weir.	Below weir.
1	2	3	4	5	6	7
	R. L.	R. L.	R. L.	R. L.	R. L.	R. L.
Dehri ...	339.00	336.00	335.70	333.30	343.10	341.00
Baroon ...	341.10	338.60	337.50	335.40	343.50	342.70

The head sluices of the Western Main Canal were closed from 8 P.M. on the 22nd of July to 8 A.M. on the 23rd July to exclude silt from the canals. The head sluices of the Eastern Main Canal were similarly closed from 8 P.M. on the 22nd to 10 A.M. on the 23rd of July.

The highest flood readings recorded in this circle for the river Ganges in 1892-93 were as under:—

RIVER GANGES.

LOCALITY.	Date.	Reading.	HIGHEST KNOWN SINCE 1875.	
			Date.	Reading.
1	2	3	4	5
Buxar ... ..	9th September 1892 ..	R. L. 197.38	6th August 1875 ...	R. L. 200.71
Deegah ... ..	2nd ditto ...	165.95	14th August 1879 ..	169.20
Hajipur, confluence of rivers Ganges and Gandak ...	1st ditto ..	164.10	1st ditto ...	166.20

ATION.

79. The irrigation for ten years together with the rainfall over 16 stations actually situated on the canal irrigated area is shown below:—

YEAR.	Kharif.	Rabi.	Perennial hot weather.	Total.	Rainfall.
1	2	3	4	5	6
	Acres.	Acres.	Acres.	Acres.	Inches.
1883-84 ..	215,790	117,960	16,864	350,614	32.91
1884-85 ...	246,740	100,239	23,682	370,661	31.37
1885-86 ...	217,072	87,936	27,562	332,570	44.52
1886-87 ...	177,510	60,639	30,055	268,204	58.84
1887-88 ...	220,428	69,945	25,007	315,380	40.18
1888-89 ...	238,895	100,142	16,872	355,909	45.43
1889-90 ...	230,741	55,613	18,928	305,282	49.65
1890-91 ...	211,726	51,318	17,970	281,014	52.23
1891-92 ...	248,819	210,907	14,997	474,723	26.82
1892-93 ...	274,839	126,195	9,727*	410,761	37.69

\* Hot weather crop.

The copious rainfall that occurred during the rabi season accounts for the marked decrease in the area of rabi irrigation, compared with that of the previous year, when the rainfall was very scanty. The Superintending Engineer remarks:—

“It is indeed rather surprising that the rabi area was so great as it was, and the fact seems rather to show that the cultivators, who had been compelled by the bad season of 1891-92 to take canal water, had so far acknowledged its benefits that they took it again even in a rabi season of such abundant rainfall as that of the year under review.”

The new rules under the Irrigation Act (Notification No. 42 of the 10th February 1891) which had been introduced in 1891-92 were fully in force during the year under review. Under these new rules irrigation is treated mainly by “seasons” and the rates are “season” rates, whereas the old rules treated irrigation more by crops. Under the new rules the area irrigated in any year is the sum of the areas irrigated in the three “seasons.” This may lead in some cases to an apparent exaggeration of the area of a crop irrigated. For instance, if a sugarcane crop is irrigated in each of the three seasons—it is frequently irrigated in two—the total area shown under the new system as

irrigated during the year would be treble of the actual area of the crop. Although at first sight this may be held to be objectionable, it is actually correct, if it be allowed that the total area irrigated during the year is the sum of the areas irrigated in the three seasons. Under the old rules the rate for sugarcane under "annual" leases covered the irrigation of the crop in the kharif and rabi seasons, and if it was irrigated in the hot weather a separate lease was taken out. The total irrigated area of the year was found by adding the "hot weather" irrigation to other items (see appendix XIII for instance), this process really resulting in giving a total which included twice over those fields of sugarcane included in "five-year" and "sugarcane" leases which were also irrigated in the hot weather. In this, as in other respects, the old system was faulty.

On account of the change of rules and because one of the old crop rates (that for sugarcane) survived into part of 1891-92, a comparison of the areas irrigated in the two years cannot be made accurately.

80. The following statement gives the areas of each crop irrigated under annual and five-year leases up to 1891-92, and under season and long-term (seven and three-year) leases in 1892-93 under the new rules:—

Crop.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6
	Acres.	Acres.	Acres.	Acres.	Acres.
Kharif ... { Five-year leases ...	154,825	174,780	189,227	200,716	Long-term leases 235,637
{ Annual leases ...	69,628	41,917	22,499	48,103	Season leases 39,202
Total ...	224,453	216,697	211,726	248,819	274,839
Rabi ... { Five-year leases ...	27,408	31,128	20,761	20,274	Long-term leases 36,329
{ Annual leases ...	69,817	20,336	20,632	177,308	Season leases 89,866
Total ...	97,225	51,464	41,393	197,582	126,195
Sugarcane { Five-year leases ...	17,869	18,360	13,568	13,801	* .
{ Annual leases ...	4,600	5,004	4,402	1,196	
Total ...	22,469	23,364	17,970	14,997	...
Hot-weather ...	11,762	13,757	9,925	13,325	Season leases 9,727
GRAND TOTAL ...	355,909	305,282	281,014	474,723	410,761
Total five-year leases ...	200,102	224,268	223,556	234,791	Total long-term leases 271,966
„ annual leases ...	155,807	81,014	57,458	239,932	„ season leases 138,795

\* Under the new rules for the Bone Canals there are no separate leases for sugarcane. They are included in each season lease as explained above.

The total irrigation of the year 1892-93 may be stated in this way:—

Area irrigated under long-term leases ...	...	Acres.
„ „ „ season leases ...	...	271,966
„ „ by sale by volume ...	...	129,356
„ „ without permit ...	...	5,732
		3,707
Total ...	...	410,761

DISTRIBUTION  
BY DIVISIONS.

The following statement shows the areas irrigated in 1892-93 in divisions and in subdivisions :—

			Acres.	Acres.
Eastern Sone Division—				
Daudnagar subdivision	...	...	42,029	
Bikram ditto	...	...	37,632	
Arrah Division—				79,661
Nasriganj subdivision	...	...	37,367	
Koath ditto	...	...	53,596	
Ramnagar ditto	...	...	52,155	
Agaon ditto	...	...	37,191	
Buxar Division—				180,309
Sikroul subdivision	...	...	72,915	
Jamrora ditto	...	...	53,404	
Basawan ditto	...	...	24,472	
			150,791	
Total			...	410,761

The year 1891-92 was the last in which any five-year leases were granted under the old rules. The new rules passed (in notification No. 42 of the 10th February 1892) by the Lieutenant-Governor under the Irrigation Act made marked changes in the system of leasing; under rule 71 the new schedule of long-term leases (schedule No. 1) came into force on the 1st April 1892, and it is under this schedule that seven and three-year leases, which will in time entirely supersede the old five-year leases, have been introduced. It may perhaps be explained here that the seven-year leases are at the same rate of two rupees an acre (or Re. 1-4 a bigha) which obtained under the five-year leases, but that the three-year leases are rated at Rs. 2-8 an acre (or Re. 1-9 a bigha). In the year under review five-year leases for 44,553 acres lapsed, as they had run their course, and seven and three-year leases for a total area aggregating 65,066 acres were executed. The following statement shows by divisions the main facts with reference to these leases :—

DIVISION.			Leases which lapsed on 31st March 1892.	Five-year leases in force on 1st April 1892.	LEASES ENTERED INTO DURING 1892-93.		Total area under long-term leases in 1892-93.
					Seven-year leases.	Three-year leases.	
			Acres.	Acres.	Acres.	Acres.	Acres.
Eastern Sone	...	...	10,235	42,756	18,794	686	62,236
Arrah	...	...	21,057	89,490	21,920	4,975	116,385
Buxar	...	...	13,61	58,652	13,880	4,811	77,343
Total			44,553	190,898	51,594	10,472	255,964

81. The areas actually irrigated in each division since the year 1888-89 are shown by crops in the following statement :—

YEAR.	EASTERN SONE DIVISION.						ARRAH DIVISION.						BUXAR DIVISION.						TOTAL FOR ALL DIVISIONS.					
	Five-year leases.					Total.	Five-year leases.					Total.	Five-year leases.					Total.	Five-year leases.					Total.
	Annual leases.				Annual leases.				Annual leases.				Annual leases.											
	Kharif.	Rabi.	Sugarcane.	Hot-weather.	Kharif.		Rabi.	Sugarcane.	Hot-weather.	Kharif.	Rabi.		Sugarcane.	Hot-weather.	Kharif.	Rabi.	Sugarcane.		Hot-weather.					
1888-89	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.		
1889-90	37,117	21,750	7,720	404	66,995	101,489	25,025	27,244	2,660	9,028	165,349	61,496	22,853	34,853	1,630	2,733	123,555	200,102	69,628	69,917	4,600	11,762	355,90	
1890-91	40,017	16,602	8,227	295	65,141	108,057	12,411	11,244	3,201	10,215	145,738	75,244	18,904	5,255	1,508	3,642	99,503	224,248	41,017	20,310	5,004	13,757	304,98	
1891-92	40,116	12,177	2,505	604	61,302	108,999	8,637	11,786	2,810	7,566	139,807	68,441	1,686	6,341	1,079	2,359	79,902	233,556	23,499	20,632	4,432	9,025	281,01	
1891-92	53,03	23,385	17,237	205	94,090	169,204	17,331	43,361	850	10,377	181,123	72,324	7,387	110,710	141	2,948	199,510	234,791	49,103	177,308	1,196	13,825	474,72	

YEAR.	EASTERN SONE DIVISION.						ARRAH DIVISION.						BUXAR DIVISION.						TOTAL FOR ALL DIVISIONS.					
	Long-term leases.					Total.	Long-term leases.					Total.	Long-term leases.					Total.	Long-term leases.					Total.
	SEASON LEASES.				SEASON LEASES.				SEASON LEASES.				SEASON LEASES.											
	Kharif.	Rabi.	Hot-weather.		Kharif.		Rabi.	Hot-weather.		Kharif.	Rabi.		Hot-weather.		Kharif.	Rabi.	Hot-weather.							
1892-93	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.		
1892-93	64,801	7,573	6,987	...	79,361	124,814	11,435	35,906	4,664	180,309	82,351	16,494	40,583	5,063	150,791	271,960	...	89,202	89,880	9,727	...	410,701		



The area measured during 1892-93 was 111·87 per cent. of the area for which permits were issued. The proportion of flow to lift irrigation was as 24·6 to 1.

82. The average gross discharge is the average supply entering at the head of the canal or series of canals named: the discharge utilised is the discharge at the head less the quantity gauged as escaping from recognised escapes. These duties show a decided improvement over those of the previous year in the kharif season, but the rabi duties are far lower than those of 1891-92, as is shown by the following table:—

DUTY OF  
WATER.

*Kharif.*

		1892-93.		1891-92.		1890-91.	
		Acres.	Duty.	Acres.	Duty.	Acres.	Duty.
Eastern Main Canal Series	...	68,284	56·43	75,937	57·59	56,600	55·22
Arrah Canal System	...	122,471	70·46	119,304	61·25	112,584	86·87
Buxar Canal System	...	81,084	74·87	69,465	55·13	60,512	79·20
Western Main Canal Series	...	206,555	71·52	188,779	57·94	173,096	83·66
Sone Canals	...	274,839	67·06	263,816	57·84	229,696	74·24

*Rabi.*

		Acres.	Duty.	Acres.	Duty.	Acres.	Duty.
Eastern Main Canal Series	...	11,377	45·51	20,851	48·60	6,735	20·72
Arrah Canal System	...	53,174	76·73	60,115	70·39	30,492	57·75
Buxar Canal System	...	61,644	96·77	131,613	130·82	22,136	55·48
Western Main Canal Series	...	114,818	86·33	191,728	103·02	52,628	56·77
Sone Canals	...	126,195	79·87	212,579	92·83	59,363	47·41

In the case of the Sone Canals, the most important duty is that obtained at the period of maximum demand, as the area leased in the kharif season is restricted to that which it may reasonably be expected can be irrigated at that time.

In the year under review the rainfall in October (Subsidiary Form IVEa) was very deficient, and there was a large demand for water. During the ten days ending on the 19th October, when the demand was greatest, the average supply required for the irrigation on the Western Main Canal Series was 3,939 cubic feet per second for 193,118 acres of kharif (exclusive of sugarcane), which is equivalent to a duty of 49 acres per c. ft. per second to the lease of ten days. On the Eastern Main Canal Series the corresponding figure was 42 acres only.

CROP EXPERI-  
MENTS.

83. *Crop experiments.*—The following tables show the results of the experiments made during the year to determine the yield of rice crops, wheat irrigated from the canals during the year 1892-93:—

TABLE I.

*Result of experiments on "good" rice crops irrigated with canal water for the year 1892-93.*

DIVISION.	Number of experi- ments.	AVERAGE YIELD PER ACRE WEIGHED DRY.				REMARKS.
		Grain.		Straw.		
		Maunds.	Seers.	Maunds.	Seers.	
Arrah ... ..	13	32	38	68	27	
Buxar ... ..	14	30	22	68	0	
Eastern Sone ... ..	40	42	33	111	2	
Sone Circle average ...	87	37	4	88	1	

N.B.—A good crop means a crop decidedly above the average crop in the village in which it was taken.

TABLE II.

*Result of experiments on "good" rabi crops irrigated with canal water for the year 1892-93.*

DIVISION.	Staple.	Number of experi- ments made.	IRRIGATED WITH CANAL WATER.			
			AVERAGE YIELD PER ACRE.			
			Grain.		Straw.	
			Maunds.	Seers.	Maunds.	Seers.
Eastern Sone ... ..	Wheat ...	16	24	28	49	4
Arrah ... ..	" ...	57	16	38	27	7
Buxar ... ..	" ...	34	14	6	22	13
Sone Circle average ...	...	107	17	8	28	36

The Superintending Engineer makes the following interesting comments upon the effects on the land of continued irrigation with Sone water:—

"It is rather remarkable that the average results of "good" rice crops show a steady improvement year by year, thus:—

*Weight of grain from "good" rice crops irrigated with canal water.*

	1892-93.	1891-92.	1890-91.	1889-90.
	Mds. srs.	Mds. srs.	Mds. srs.	Mds. srs.
Sone Circle average ...	37 4	36 14	32 2	31 19

and this appears to suggest that one result of irrigation with the silty waters of the Sone, instead of the clear water from abrahs and from rainfall, is to improve the soil and thus produce superior crops. It would be straining these figures too far to say that they prove this proposition, but they are certainly evidence in that direction. The fact that silt is valuable to the fields needs no proof; the magnificent crops which have been produced in Egypt for 6,000 years or more, with no deterioration of the soil, have established that fact. It is

known that irrigation from the Sone Canals insures the rice crop in bad years from failure; it did so in 1888-89: it is known that the irrigation with canal water of a field, not previously watered by the canals increases the outturn. If it is also true that continuous irrigation for a series of years produces a further increase of crop by improvement of the soil to even half the extent which the above table indicates; the value to the landowner and raiyat of canal irrigation is very vastly in excess of the water paid by the latter. It was asserted at the time of the Sone Canals Commission in 1887-88 that not only was the crop produced by the aid of canal water inferior, but that the longer the land was irrigated, the worse the crop became. The facts which have been collected from these crop experiments are strong evidence that these statements were false, and stronger evidence is found in the fact that the time has already come when the canals in a period of even ordinary demand are not able to satisfy the demands of the people for rice irrigation."

84. The demands, collections, and balances of water-rates for the last five years are shown below:—

DEMANDS,  
COLLECTIONS  
AND  
BALANCES.

YEAR.	Amount outstanding at commencement of year.	Amount falling due for recovery during the year.	Total for recovery.	Cash realization.	Remitted or written off.	Balance at the end of the year.
1	2	3	4	5	6	7
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1888-89	1,11,281	7,53,217	11,64,198	7,59,556	24,329	3,80,613
1889-90	3,80,613	7,52,788	11,33,401	8,16,394	35,325	2,81,782
1890-91	2,81,782	6,29,121	9,10,903	6,44,718	21,460	2,44,728
1891-92	2,44,728	6,93,685	9,38,413	8,11,750	16,220	1,11,443
1892-93	1,11,443	9,50,733	10,62,176	9,59,172	14,914	87,790

The Examiner gives the "assessments of the year" as Rs. 8,91,632, but the above statement shows the "amount falling due during the year" as Rs. 9,50,733, which is arrived at in this way:—

	Rs.	Rs.
Examiner's "assessments of the year" ...	...	8,91,632
Add—The assessments of the rabi of 1891-92 which were "received" in that year but legally due in 1892-93 ...	87,567	63,208
Deduct—The assessments of the rabi of 1892-93 which were "received" in that year but legally due in 1893-94 ...	21,359	
		9,54,840
Deduct—Certain excess recoveries which are treated as "amounts falling due during the year" (see paragraph 21 of Deputy Collector's revenue report) ...		4,107
Amount falling due during the year ...		9,50,733

The Examiner gives the outstanding balance at the end of the year as Rs. 1,12,149 instead of Rs. 87,790 as shown above. The Superintending Engineer offers the following explanation of the difference:—

"The demand statements for the rabi crop ought to be submitted to the Deputy Collector on the 15th March, but it is hardly possible to do this; some are submitted before and some after the last day of March. The Deputy Collector includes in his account of "assessments received during the year" all demand statements which reach him between 1st April and 31st March inclusive, and the Examiner's "balance outstanding" is based on those assessments. It is the fact, however, that the money due on the rabi assessments is not legally due until the 1st April, so the amount included in rabi "assessments received during the year" is not "outstanding at the end of the year," although it may be "outstanding on the 1st April" of the next year. The Examiner's figure exaggerates the true outstandings. If all the money legally due on the 1st April were collected on that day, the Examiner's figure, which is really based on the accounts for March, would still show a balance due, although such balance would not exist. At the end of March 1893, the rabi "assessments received during the year" by the Deputy Collector amounted to Rs. 24,359, so that the true "outstanding at the end of the year was (1,12,149—24,359) Rs. 87,790."

The amounts assessed during the last three years as unauthorised use of water and as wastage of water are shown below :—

	1889-90.	1890-91.	1891-92.	1892-93.
	Rs.	Rs.	Rs.	Rs.
For unauthorised use of water ...	913	2,734	12,861	14,549
For wastage of water ...	224	256	314	105

ARREARS.

85. In the following statement the Deputy Collector shows the extent to which the arrears as well as current demand have been worked off:—

	Demand of 1892-93 consisting of	Collected or remitted in 1892-93.	Percentage of demand adjusted.	Unadjusted balance at close of year.
1	2	3	4	5
	Rs.	Rs.		Rs.
Arrears previous to 1890-91 ...	11,626	11,626	...	...
Arrears of 1890-91 ...	4,481	4,207	93·8	274
.. of 1891-92 ...	95,337	88,258	92·5	7,079
Total arrears outstanding on 1st April 1892 ...	1,11,444	1,04,091	93·4	7,353
Current demand for 1892-93 ...	9,50,732	8,70,295	91·5	80,437
Total ...	10,62,176	9,74,386	91·7	87,790

There is on the whole a reduction on the outstanding balance of Rs. 1,23,653, but the rabi assessments which formerly became due on the 31st March, and are now due on the 1st April, no longer form a part of the balance.

COLLECTIONS.

86. The following statement gives the collections in each district :—

DISTRICT.	DEMAND.			ADJUSTMENTS.				Balance on 31st March 1893.	Percentage, column 9 on column 4.
	Arrears on 31st March 1892.	Current demand for 1892-93.	Total.	Collection.	Remission made by canal officers.	Written off as irrecoverable.	Total.		
1	2	3	4	5	6	7	8	9	10
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Shahabad ..	16,078	7,72,654	8,29,332	7,71,169	1,837	1,443	7,74,449	50,883	93·3
Patna ..	29,154	74,280	1,03,434	71,778	8,476	1,583	81,837	18,597	82·0
Gaya ..	25,611	1,03,798	1,29,410	1,17,525	965	610	1,18,100	11,310	88·9
Total ...	1,11,443	9,50,732	10,62,176	9,59,472	11,278	3,636	9,74,386	87,790	91·7

The collections during the year were everywhere satisfactory and show improvement over those of the preceding year. The heavy balance of Rs. 6,95,306 in 1884-85 was reduced to Rs. 87,790 at the close of the year under review. This result is very creditable to the Deputy Collector and his staff.

Besides the collections of Rs. 9,66,712 shown above, a further sum of Rs. 7,239 was credited to water-rate accounts as below :—

	Rs.
Surplus or excess recoveries ...	4,107
Process fees in certificate cases ...	2,945
Miscellaneous ...	187
Total ...	7,239

REMISSIONS.

87. The sums remitted during the year under review and the preceding year according to the figures given by the Examiner of Accounts are :—

	1891-92.	1892-93.
	Rs.	Rs.
By Canal officers ...	2,555	2,171
By Civil ..	12,665	8,252
	<u>15,220</u>	<u>10,423</u>

According to the figures supplied by the Superintending Engineer the remissions are—

	1891-92.	1892-93.
	Rs.	Rs.
Written off by Civil officers as irrecoverable ...	11,510	12,743
Remissions granted by Executive Engineers ...	3,304	4,620
Extraordinary remissions by Superintending Engineer ..	1,248	...
Remitted on revised and cancelled khatianies ...	1,365	1,921
	<u>17,427</u>	<u>19,284</u>

Leaving out the extraordinary items amounting to Rs. 9,107, which were misappropriated by tahsildars in past years in the Patna district under the old system of collections which is not real remission, and Rs. 2,449 treated as refunds of revenue and charged to working expenses, there remains Rs. 5,807, which is the actual remission during the year. This amount consists of Rs. 2,172 granted by the Canal officers to correct wrong and unfair assessments, and Rs. 3,635 remitted by the Revenue officers owing to death or absconding of rate-payers, or owing to their being too poor to pay. Compared with 1890-91 and 1891-92, when the amounts remitted were Rs. 21,460 and Rs. 15,221, the result is apparently favorable, but is really so only in the case of sums written off as irrecoverable by civil officers. The remissions by Executive Engineers were in excess of those granted during the previous year, and besides demand statements aggregating Rs. 1,921 were cancelled as against Rs. 1,365 in 1891-92. This unsatisfactory result is probably not unconnected with the delay in submitting demand statements, which it is claimed were held back with the view of ensuring greater accuracy. The Superintending Engineer is taking steps to bring about an improvement in this respect.

The ordinary remissions by the Executive Engineers are classified in the following table:—

Class.	Causes.	Eastern Sone Division.	Arrah Division.	Buxar Division.	Total, 1892-93.	Total, 1891-92.
1	2	3	4	5	6	7
		Rs.	Rs.	Rs.	Rs.	Rs.
a	Charged by mistake for land cultivated by others ...	...	...	...	...	23
b	Excess measurement or errors in calculation ...	557	189	191	940	417
c	Lift charged as flow ...	25	38	156	219	61
d	Irrigation not denied, but remitted as not chargeable under the Act ...	59	4	170	233	797
e	Land not having been irrigated at all ...	733	162	110	1,005	691
f	Injury to crop due to insufficient supply ...	193	69	...	262	694
g	Land thrown temporarily out of cultivation ...	...	1	69	70	...
h	(Applicable to long leases only) Failure of crop originally sown, rule 82 ...	27	382	1,162	1,571	306
i	Land appropriated for other purposes than cultivation ...	...	16	...	16	42
j	Double assessment, as when land assessed on a season lease is subsequently included in a long lease in the same year ...	189	88	27	304	363
	Total ...	1,783	949	1,888	4,620	3,304

The increase in the amount remitted is not satisfactory, as evincing less careful preparation of the demand statement. The increase under head *h* is

mainly due to rule 82, having been held by some Executive Engineers to justify remissions in cases to which it was scarcely intended to apply. The matter is now under consideration.

The remissions implying errors in assessments were for the last five years as follows:—

1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
Rs.	Rs.	Rs.	Rs.	Rs.
18,813	11,284	6,555	3,304	4,620

The percentage on the gross demand of remissions by canal officers is as follows:—

		Percentage of remissions to gross demand.	
		1891-92.	1892-93.
Eastern Sone Division	...	0.68	0.73
Arrah	"	0.31	0.24
Buxar	"	0.22	0.41

REVENUE  
ESTABLISH-  
MENT.

88. The expenditure on the revenue establishments employed during the year under review and the four previous years is shown below:—

PARTICULARS.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6
<i>Establishment under Collector.</i>	Rs.	Rs.	Rs.	Rs.	Rs.
1. Permanent establishment, including travelling allowances.	29,427	30,589	31,253	40,997	58,538
2. Temporary establishment	1,011	710	687	4,752	3,070
3. Contingencies	2,878	2,522	2,398	2,784	2,663
4. Fees to tahsildars or establishment employed in lieu thereof.	28,362	28,603	24,499	16,868	2,580*
Fees to patwaris. Rule 40	4,128	3,763	3,988	2,205	1,152
<i>Establishment under Executive Engineer.</i>					
Permanent and temporary establishment, including travelling allowances.	48,717	51,635	48,105	50,228	52,187
Contingencies	3,338	3,695	3,500	5,443	4,768
Water-regulation establishment	2,270	2,299	2,235	2,286	2,310
Headmen's fees	38,118	29,007	28,861	26,550	32,032
Total	1,58,249	1,52,823	1,45,528	1,52,113	1,59,300
Collections of water-rates and miscellaneous revenue by the Canal Revenue Department	7,63,376	8,19,762	6,47,839	8,15,858	9,71,202
Percentage	20.7	18.6	22.3	18.66	16.4

\* Lamberdar's fee and contractor's percentage.

The increased expenditure is due to the large rabi irrigation of the previous year and to the heavy collections of that under review. A large part of the expense of the rabi assessments of 1891-92 is shown in the accounts of 1892-93, the headmen's fees being wholly calculated on the assessments of the previous year. The result of substituting fixed establishments for tahsildars paid by fees has been an increase in cost of from Rs. 2,000 to Rs. 3,000 a year, accompanied, however, by a very considerable increase in the efficiency of the staff. Columns 3 and 4 of the table are not altogether satisfactory, as the establishment is also employed on matters connected with areas measured and assessed in previous years. They are, however, useful for purposes of comparison.

89. The cost per acre of assessments, including permanent and temporary establishments and headmen's fees, is given in the statement below:—

DIVISION.	Areas measured and assessed during 1892-93.	COST OF PERMANENT AND TEMPORARY ESTABLISHMENT.		Area which concerns headmen's fees.	HEADMEN'S FEES EARNED.		TOTAL COST OF ASSESSMENTS PER ACRE.	
		Total.	Per acre assessed.		Total.	Per acre assessed.	1892-93.	1891-92.
	Acres.	Rs.	Rs. A. P.	Acres.	Rs.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Eastern Sone	34,340	10,955	0 5 1	77,096	5,741	0 1 2	0 6 3	0 4 3
Arrah ...	82,390	20,157	0 3 11	1,71,880	11,386	0 1 1	0 5 0	0 4 3
Buxar ...	87,131	17,586	0 3 3	1,45,783	9,412	0 1 0	0 4 3	0 2 7
Total ...	203,861	48,698	0 3 9	3,94,759	26,539	0 1 1	0 4 10	0 3 6

90. The number of complaints, such as objections to assessments actually made, or petitions alleging damage from the canals, and their disposal is shown in the following statement:—

DIVISION.	(I)—ORDINARY REMISSION.				(II to V)—OTHER COMPLAINTS.			Total complaints received during year, excluding those pending from previous year.	Pending.
	Received during the year and pending from previous year.	Disposed of.		Pending.	Received during the year and pending from last year.	Disposed of.	Pending.		
1	2	3	4	5	6	7	8	9	10
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Eastern Sone ...	857	210	620	27	16	16	...	719	27
Arrah ...	2,848	1,133	1,495	220	160	155	5	2,770	225
Buxar ...	4,022	1,128	2,504	330	79	66	13	3,994	343
Total, 1892-93 ...	7,727	2,471	4,709	577	255	237	18	7,483	595
Total, 1891-92 ...	4,725	1,274	2,974	477	243	191	52	4,455	529
Total, 1890-91 ...	3,703	1,598	1,900	100	154	191	4	3,171	113

The Superintending Engineer writes:—

"There is an increase in the number of complaints in the Arrah Division from 2,333 in 1891-92 to 2,770 in 1892-93, mainly due to the partial failure of the hot weather supply: in the Buxar Division the increase is from 737 to 3,944; in the Eastern Sone Division there is a decrease from 1,785 to 719; the increases are largely under the heads "(b) excess measurements" and "(c) land charge not having been irrigated." The cause assigned for the increase in the Buxar Division is that in the heavy rabi season of 1891-92 there was no time to check the rabi khasrahs before the khationes had been despatched, and afterwards mistakes were found to have occurred. Out of 7,417 complaints dealt with during the year, one-third were held to be good and two-thirds were refused. The number of cases in which the petitioners were not satisfied with, or at any rate did not accept, the orders of the canal officers in the 7,417 cases dealt with, was 33 only; in these cases an appeal was made to the

Collector of the district. Out of 45 such cases about 25 per cent. were allowed by the Collectors to be good and 75 per cent. of the appeals were rejected" The following table shows the figures in the different Divisions:—

DIVISION.	NUMBER OF APPEALS.		Appeals allowed.	Appeals discharged.	Pending.
	Pending from last year.	Instituted during the year.			
1	2	3	4	5	6
Eastern Sone ...	No. 2	No. 6	No. 1	No. 5	No. 2
Arrah ...	10	23	10	23	...
Buxar ...	...	4	...	4	...
Total ...	12	33	11	32	2

*Applications.*—The following statement gives the number of applications disposed of during the year, the detail being given in Appendix XIII:—

DIVISION.	Received during the year and pending from last year.	Granted.	Refused.	Pending at the close of the year.
1	2	3	4	5
Eastern Sone ...	No. 1,381	No. 602	No. 552	No. 127
Arrah ...	2,425	565	1,557	303
Buxar ...	1,082	409	469	204
Total, 1892-93	4,788	1,576	2,578	634
Total, 1891-92	5,025	1,867	2,412	746
Total 1890-91	4,335	2,312	1,557	466

#### APPEALS.

91. There were, including 12 pending from the previous year, 45 appeals to the Collectors of districts against Executive Engineers' decisions. Of these 11 were allowed, 32 discharged, and two had not been decided at the close of the year.

Nine cases were decided by Engineers vested with magisterial powers under the Bengal Irrigation Act. Twenty-five persons accused of offences under the Act were convicted, and twenty-five discharged. The amount of fines imposed was Rs. 357, and the number of days' imprisonment thirty-eight.

#### CERTIFICATES.

92. The Special Deputy Collector in charge of the collections still continues to deal with the certificates required in realising water-rates.



The amount of certificate work done in each district during the year under review, as compared with that of the previous year, is shown in the following statement:—

	SHAHABAD.				PATNA.				GAYA.				TOTAL.			
	1891-92.		1892-93.		1891-92.		1892-93.		1891-92.		1892-93.		1891-92.		1892-93.	
	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Cases for disposal—		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
1. Cases pending at the close of the preceding year.	245	0,302	156	2,028	1,312	16,345	67	6,888	20	2,757	11	877	1,536	25,284	234	9,193
2. Cases instituted during the year	3,162	27,853	2,423	20,101	8	2,182	287	3,067	18	1,171	188	1,011	3,178	31,170	2,903	25,079
Total	3,397	34,055	2,579	22,129	1,320	18,477	354	9,955	47	3,928	204	2,188	4,764	56,460	3,137	34,272
Cases disposed of—																
1. By being struck off owing to the demand having been remitted and cancelled.	208	2,400	86	1,238	55	9,925	70	4,602	17	3,467	8	152	280	15,882	164	5,002
2. By being wholly satisfied	3,033	29,537	2,335	19,227	1,198	1,084	217	3,601	19	184	178	1,925	4,250	31,385	2,820	24,763
Total	3,241	32,027	2,421	20,465	1,253	11,589	317	8,203	36	3,651	186	2,077	4,530	47,267	2,984	30,745
Balance outstanding at the close of the year.	156	2,028	98	1,604	67	6,888	57	1,752	11	277	18	111	234	9,193	153	3,527

The number for disposal was 3,137, inclusive of the outstanding balance from last year, covering a sum of Rs. 34,272 as compared with Rs. 4,764 and Rs. 56,460 in the previous year. The demand adjusted was Rs. 30,745 as against Rs. 47,267, the remissions being Rs. 5,992 compared with Rs. 15,882. The outstanding balance was reduced from Rs. 9,193 to Rs. 3,527, and the number of cases pending at the close of the year shows a satisfactory decrease of 81 cases.

The following are the Deputy Collector's remarks:—

"In Shahabad, where the arrears were generally at a normal level, there was a decrease in the number of cases. In Patna and Gaya, there was necessity for larger institutions, with a view to the adjustment of very old arrears outstanding since the year 1883-84. It may be here observed that in Patna the institutions were not above the average; on the contrary, less. Here in 1891-92 the institutions were almost nil, as in this year all the good and realizable arrears were got in, leaving only the bad debts to be dealt with in the year under report. All the 153 cases left pending at the close of the year have since been disposed of, with only eight exceptions.

*Resistance to process.*—Two cases of resistance to processes were prosecuted before the Criminal Court, and in both these conviction was obtained."

93. The following statements show the receipts from navigation for the last five years:—

#### NAVIGATION RECEIPTS.

YEAR.	EASTERN MAIN SERIES.			WESTERN MAIN SERIES.			Total.	Total tollage only
	Number of miles open.	Tollage receipts.	Transport service receipts.	Number of miles open.	Tollage receipts.	Transport service receipts.		
1	2	3	4	5	6	7	8	9
	No.	Rs.	Rs.	No.	Rs.	Rs.	Rs.	Rs.
1888-89	86½	24,870	60*	132½	27,286	5,607*	57,829	54,162
1889-90	86½	25,189	...	132½	26,000	6,570*	57,750	51,189
1890-91	86½	28,465	...	132½	28,128	9,036*	65,029	56,593
1891-92	86½	25,602	...	132½	31,737	9,178*	66,517	57,349
1892-93	86½	20,832	...	132½	29,164	9,093*	59,089	49,996

\* There is no longer any Government transport service. These receipts are on account of hire of steamers, boats and sundries.

## TOLLAGE.

## TOLLAGE (ASSESSED).

YEAR.	Patna Canal system, Eastern Main Canal series.	Arrah Canal system.	Buxar Canal system.	Total.
1	2	3	4	5
	Rs.	Rs.	Rs.	Rs.
1888-89 ... ..	25,165	18,121	8,828	52,412
1889-90 ... ..	24,271	18,565	7,479	50,315
1890-91 ... ..	28,526	18,180	9,998	56,704
1891-92 ... ..	25,455	21,048	10,789	57,292
1892-93 ... ..	20,963	18,196	10,869	50,028

## TRAFFIC.

## COMPARISON OF TRAFFIC.

	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6
Number of miles open ... No.	218½	218½	218½	218½	218½
Toll collections ... Rs.	52,412	50,315	56,704	57,292	50,023
Collections per mile ... „	240	230	259	262	229
Boats, including empties ... No.	8,096	8,058	8,644	8,646	6,710
Tonnage of boats ... Tons.	106,788	104,390	114,996	129,147	97,841
Estimated value of cargo, including rafts ... Rs.	58,04,029	49,36,554	65,25,714	70,06,595	57,32,365

The decrease in all items was caused by the rather poor outturn of crops in all but the irrigated parts of the district, the result of the scanty rainfall of the previous year.

## TRANSPORT SERVICE.

94. The transport service was worked by Messrs. Hodges and Radford under the contract which had been renewed for two years from 1st December 1892. The charges, Rs. 600 per month for steamer hire, and Rs. 500 for compounded tolls, are the same as in past years. The ordinary repairs of the steamers which belong to Government are executed by the lessees.

The extent of the traffic in connection with the steamers is shown below:—

PARTICULARS.	Arrah Canal.	Buxar Canal.	Patna Canal.	Total.
1	2	3	4	5
Passengers carried { Up ... No.	11,665	8,295	4,192	24,152
Down ... „	11,217	8,027	4,225	23,469
Cargo carried { Up ... Tons.	399	251	971	1,621
Down ... „	918	465	773	2,156

On the Arrah and Buxar Canal the steamers make two, trips each way in every week. On the Patna Canal, which is the longer route the steamer makes

only one trip each way in a week. For the hire of the steamers Rs. 7,220 was realized during the year.

There are in addition to the steamers four cargo boats, the property of Government, for the hire of which Rs. 1,710 was received during the year, besides which Rs. 163 was recovered by way of fees for the use of the accommodation boats and mud punts.

95. The following table shows the details of the miscellaneous receipts for the last five years :—

MISCELLANEOUS RECEIPTS.

PARTICULARS.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6
	Rs.	Rs.	Rs.	Rs.	Rs.
Sale of water ... ..	387	514	393	1,056	805
Plantations ... ..	383	279	355	995	852
Other canal produce ... ..	1,816	1,542	1,815	742	967
Water-power ... ..	835	769	1,158	1,049	1,138
Rent of buildings ... ..	8,247	8,313	8,164	8,397	8,807
Fines ... ..	224	28	40	5	362
Miscellaneous { Rent of lands ... ..	7,995	6,939	8,114	9,920	9,241
{ Fisheries ... ..	734	597	431	489	523
{ Cost of process ... ..	3,739	3,244	2,937	3,769	2,955
{ Sale of old materials ... ..	102	17	121	82	85
{ Other items ... ..	2,042	1,100	2,610	5,323	3,529
Total ... ..	26,604	23,342	26,128	31,827	29,214

96. The expenditure on works and maintenance will now be briefly reviewed.

MAINTENANCE CHARGES.

The principal works executed under "extensions and improvements," on which Rs. 6,541 were spent, have already been described in paragraph 74.

EXTENSIONS AND IMPROVEMENTS.  
REPAIRS.

97. The expenditure on maintenance and repairs by main sub-heads for the last three years is shown below :—

PARTICULARS.	1890-91.	1891-92.	1892-93.
1	2	3	4
	Rs.	Rs.	Rs.
Head works ... ..	20,353	20,922	22,374
Main canal, including branches	1,78,593	1,75,837	2,00,130*
Distributaries ... ..	67,616	58,248	55,918
Drainage and protective works...	6,101	3,622	2,157
Cost of working transport service	...	1,155	...
Compensation ... ..	168	28	...
Total ... ..	2,72,831	2,59,832	2,80,579

\* Includes Rs. 600 for the Arrah Dehri Telegraph line, and Rs. 4,491 on account of a theft money in the Revenue Division and of money embezzled in the Patna district.

98. The figures below give the cost of repairs to head works during the last three years :—

REPAIRS TO HEAD WORKS.

	1890-91.	1891-92.	1892-93.
	Rs.	Rs.	Rs.
Weir on Sone River ... ..	11,151	11,617	14,058
Other works ... ..	8,743	8,773	7,577
Total ... ..	19,894	20,390	21,635

The increased cost of maintenance of the Sone weir is due to extra dredging which had to be done in the Sone river during the year.

MAINTENANCE  
OF MAIN  
CANALS AND  
DISTRIBUT-  
TARIES.

99. Details of the expenditure on maintenance and repairs on the main canals and distributaries in each division during the last three years are given in the following statement :—

	Arrah Division.			Buxar Division.			Eastern Sone Division.			Total.		
	1890-91.	1891-92.	1892-93.	1890-91.	1891-92.	1892-93.	1890-91.	1891-92.	1892-93.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6	7	8	9	10	11	12	13
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Western Main Canal ...	44,777	47,077	45,304	16,167	12,002	11,303	..	..	..	60,941	59,079	56,007
Eastern ditto ...	..	..	..	..	..	..	29,398	32,123	28,059	29,398	32,423	28,059
Canals* ...	26,550	23,341	43,208	15,896	13,822	13,861	26,166	28,713	30,852	68,612	65,879	87,921
Branch Canals ...	12,540	10,798	13,805	7,511	9,367	9,989	..	..	..	20,054	20,165	23,791
Distributaries ...	33,706	24,943	24,668	17,747	16,927	15,587	16,161	16,377	15,663	67,614	58,247	55,908
Drainage and protective works	4,332	1,811	1,099	..	140	102	1,768	1,605	956	6,100	3,586	2,157
Total ...	1,21,905	1,08,003	1,28,084	57,321	52,258	50,812	73,193	79,118	75,530	2,52,722	2,39,379	2,51,456

\* Includes cost of maintaining the Telegraph line from Arrah to Delhi.

An increase of Rs. 15,077 has taken place in the total expenditure during the year, as compared with 1891-92.

The lower portion of the Arrah Canal was closed during the year for six weeks, a longer period than usual. Advantage was taken of the long closure to carry out a good deal of work in repairs and silt clearance, and this was the main cause of the increase under those heads. The increase in the Buxar Division was mainly due to heavy repairs to bridges on the Main Western and Gurra Chowbey Branch Canal. In the Western Main Canal the decrease was the result of the efforts to effect economy in working the dredgers.

SILT-CLEARING  
AND DREDG-  
ING.

100. The following table shows the quantity of silt dredged from the Eastern and Western Main and Buxar Canals, and the rate at which the work was done during the last three years :—

CANALS.	1890-91.			1891-92.			1892-93.		
	Quantity dredged.	Cost, including removal over spoil bank, or discharge into river.	Rate per 1,000 cubic feet.	Quantity dredged.	Cost, including removal over spoil bank, or discharge into river.	Rate per 1,000 cubic feet.	Quantity dredged.	Cost, including removal over spoil bank, or discharge into river.	Rate per 1,000 cubic feet.
1	2	3	4	5	6	7	8	9	10
	C. ft.	Rs.	Rs. A. P.	C. ft.	Rs.	Rs. A. P.	C. ft.	Rs.	Rs. A. P.
Eastern Main and Patna ...	2,235,724	11,747	5 4 0	1,706,541	10,905	6 6 2	1,842,959	10,783	5 13 6
Western Main (1—9 miles) ...	7,833,182	45,498	5 12 11	6,749,057	43,040	6 6 0	6,725,424	40,368	6 0 0
Buxar Canal ...	720,117	2,970	4 1 11	187,000	1,123	6 0 0	..	..	..
River Sone ...	1,502,555	2,148	1 6 10	1,921,530	3,990	2 1 2	3,376,392	7,309	2 2 7
Head Lock ...	66,224	281	4 3 10	64,124	313	4 14 1	1,23,939	536	4 1 3
Total ...	12,357,802	62,644	5 1 1	10,628,252	59,371	5 9 3	12,068,714	58,966	4 8 4

In addition to the above, the following dredging work was done in the Arrah and Buxar Divisions during the year :—

*Arrah Division.*—Fouracres' dredgers were employed in this Division in dredging silt: 630,457 cubic feet were dredged in the Nasriganj subdivision at a cost of Rs. 2,893, and 135,440 were dredged in the Agoan subdivision at a cost of Rs. 890.

*Buxar Division.*—In this Division a Fouracres' dredger was at work for 567 hours in the 13th mile of the Main Western Canal, where it excavated 213,448 cubic feet of silt at a cost of Rs. 964. The same dredger also works at lock No. 1 of the Buxar Canal, where 6,980 cubic feet of silt were excavated at a cost of Rs. 68.

The rates shown in the above table include the cost of lifting the silt into barges and of carrying it either over the spoil banks or into the river. The rates necessarily vary much under the latter head owing to different heights of spoil bank and of different lengths of lead to the river.

The cost of lifting the silt on to the barges or dredging proper was as shown below :—

	1890-91.			1891-92.			1892-93.		
	Quantity dredged.	Cost of dredging.	Rate per 1,000 cubic feet.	Quantity dredged.	Cost of dredging.	Rate per 1,000 cubic feet.	Quantity dredged.	Cost of dredging.	Rate per 1,000 cubic feet.
1	2	3	4	5	6	7	8	9	10
	C. ft.	Rs.	Rs. A. P.	C. ft.	Rs.	Rs. A. P.	C. ft.	Rs.	Rs. A. P.
Eastern Main and Patna ...	2,235,724	3,374	1 10 3	1,706,541	3,186	1 13 10	1,842,959	2,605	1 6 7
Western Main ...	7,834,182	15,276	1 15 2	6,749,957	12,731	1 14 2	6,725,421	12,483	1 13 8
Buxar ...	720,117	1,385	1 11 9	187,000	374	2 0 0	...	...	...
River Sone ...	1,502,555	1,928	1 4 6	1,921,530	3,571	1 13 7	3,376,992	6,727	1 15 10
Lead Lock ...	66,224	208	3 2 3	64,121	177	2 12 1	123,939	316	3 5 5
Total ...	12,357,802	22,171	1 13 1	10,628,252	20,642	1 14 2	12,068,714	22,161	2 2 4

Taking the Eastern Main and Patna Canal together, the cost of "lifting" the silt was only Rs. 1-6-7 per 1,000 cubic feet as compared with Rs. 1-13-10 in 1891-92 and Rs. 1-10-3 in 1890-91. A considerable reduction. The cost for "labour" is also less than in 1891-92. The cost for "discharging" was Rs. 4-6-11 per 1,000 cubic feet against Rs. 4-8-4 in the previous year. The total cost per 1,000 cubic feet of removing the silt was Rs. 5-13-6 as compared with Rs. 6-6-2 in 1891-92.

101. The statement below compares the expenditure on repairs to dredgers during the year under review with that of the two previous years :—

	1890-91.	1891-92.	1892-93.
1	2	3	4
	Rs.	Rs.	Rs.
12 Fouracres' dredgers	6,857	7,004	6,752
2 Bruce's ditto	436	750	546
2 English ditto	3,552	3,170	3,081
Mud punts ...	4,790	3,009	3,076
Total ...	15,635	13,933	13,455

102. The cost of lifting the silt on to barges, for each class of dredger used, including interest on capital cost and expenditure on repairs, is compared by Superintending Engineer as follows:—

	Average cost in 1892-93 of lifting per 1,000 cubic feet.			Interest on capital cost per 1,000 cubic feet lifted.			Cost of repairs per 1,000 cubic feet lifted.			Total.
1	2			3			4			5
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs. A. P.
Fouracres' dredgers ...	1	14	1	0	8	7	0	13	7	3 4 3
Bruce's dredger ...	1	11	2	0	12	4	0	5	1	2 12 7
English ladder dredgers	2	1	4	1	6	8	0	14	5	4 6 5

These figures do not include the charges for interest and repairs of mud punts amounting to 14 annas and 11 pies for each class of dredger. The results show that the Bruce's dredgers are the most economical.

103. The quantity of silt cleared by hand from main canals in the Eastern Sone Division and the cost, compared with the figures for the two previous years, is shown below:—

	1890-91.			1891-92.			1892-93.		
	Quantity cleared by hand.	Cost.	Rate.	Quantity cleared by hand.	Cost.	Rate.	Quantity cleared by hand.	Cost.	Rate.
1	2	3	4	5	6	7	8	9	10
	C. feet.	Rs.	Rs. A. P.	C. feet.	Rs.	Rs. A. P.	C. feet.	Rs.	Rs. A. P.
Western Main and Patna Canals...	4,282,127	19,021	4 7 0	6,283,004	24,798	3 15 2	5,836,101	23,430	4 0 2

The Western Main Canal was closed during the year from 6th May to 16th May, and 986,104 cubic feet of silt were excavated by hand.

104. The following figures give the cost of weed-clearing for the last five years:—

DIVISION.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6
	Rs.	Rs.	Rs.	Rs.	Rs.
Eastern Sone ...	217	9	396	277	366
Arrah ...	1,053	715	1,299	2,470	466
Dehri Workshops ...	899	911	1,350	1,060	1,435
Buxar ...	869	726	1,505	2,206	1,583
Total ...	3,038	2,361	4,550	6,013	3,850

WEED-CLEAR-  
ING.

The decrease in the cost of weed-clearing was mainly due to the long closure of the lower reaches of the Arrah Canal.

105. The cost per mile of repairs to main canals and distributaries for the last three years are shown below:—

MILLAGE  
RATES OF  
REPAIRS OF  
CANALS AND  
DISTRIBUTA-  
RIES.

CANAL.	Division.	1890-91.		1891-92.		1892-93.	
		Number of miles.	Cost per mile.	Number of miles.	Cost per mile.	Number of miles.	Cost per mile.
1	2	3	4	5	6	7	8
		No.	Rs.	No.	Rs.	No.	Rs.
Eastern Main Canal ...	Eastern Sone ...	7½	4,054	7½	4,472	7½	3,870
Western ditto ...	Dehri Workshop ...	9	6,266	9	6,194	9	5,641
	Buxar ...	12½	364	12½	267	12½	467
Buxar Canal ...	Do. ...	45½	351	45½	306	45½	306
Patna do. ...	Eastern Sone ...	79	323	79	361	79	388
Arrah do. ...	Arrah ...	65½	383	65½	350	65½	653
Doomraon Branch ...	Do. ...	40½	163	40½	144	40½	145
Behoa ditto ...	Do. ...	31	193	31	162	31	256
Chowra ditto ...	Buxar ...	39½	117	39½	166	39½	150
Gurrah Chowbey Branch ...	Do. ...	38	76	38	74	38	107
Distributaries ...	Arrah ...	467½	72	469	53	469	53
	Buxar ...	370½	48	373½	45	388½	40
	Eastern Sone ...	358	46	350½	47	350½	45

The charge for establishment not specially shown under the head "Revenue establishment" was Rs. 2,08,810 in 1892-93, against Rs. 1,89,196 in 1891-92. This increase was not unforeseen. In last year's note it was shown that the cost of establishment debitable to revenue was largely dependent on the expenditure on capital construction and on provincial roads and buildings, works for which a percentage charge is made.

106. Below is a statement showing the number of trees, classified according to size, in the plantations in each division:—

PLANTATIONS.

DIVISION.	1891-92.				1892-93.				Increase.
	Trees over 12 feet in height.	Saplings between 4 and 12 feet.	Seedlings under 4 feet.	Total.	Trees over 12 feet in height.	Saplings between 4 and 12 feet.	Seedlings under 4 feet.	Total.	
1	2	3	4	5	6	7	8	9	10
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Eastern Sone ...	81,317	29,423	57,704	168,443	94,864	34,576	51,042	181,082	12,639
Arrah ...	50,765	27,798	39,900	118,393	53,936	37,842	33,011	125,389	6,996
Dehri Workshop ...	6,658	40,089	5,504	52,311	8,343	45,340	12,544	66,227	7,916
Buxar ...	20,149	8,185	14,798	43,132	19,071	10,448	14,662	44,801	1,669
Total	158,879	111,434	117,906	388,279	176,814	128,206	113,479	417,499	29,220

It is satisfactory to notice that there has been an increase in the number of trees in all the divisions. The least progress was made in the Buxar Division.

The receipts and expenditure of the year were as under:—

Division.	Receipts.	Expenditure.
	Rs.	Rs.
Eastern Sone ...	345	680
Arrah ...	220	2,165
Dehri Workshop ..	201	882
Buxar ...	86	2,344
Total ...	852	6,071

The Superintending Engineer remarks:—"The expenditure in the Buxar Division is the largest, and the result the least satisfactory. The special attention of the Executive Engineer has already been drawn to the matter. He explains that the decrease in the number of trees is partly due to the fact that trees were formerly planted too near together and had to be thinned out: he also has some doubts as to the correctness of the former account of the trees, and doubts if there were as many as reported: storms, too, are said to have destroyed some trees. The Buxar Canal is at present conspicuously the least wooded of all the main canals."

### CALCUTTA AND EASTERN CANALS.

107. The Capital and Revenue Accounts of these canals are given below:—

#### 1.—CAPITAL ACCOUNT.

CAPITAL  
ACCOUNT.

HEADS OF ACCOUNT.				Outlay during 1892-93.	Outlay to end of 1892-93.
				Rs.	Rs.
Direct charges ...	...	...	...	72,923	53,49,933
Less—Receipts on capital account ...	...	...	...	...	51,467
Total direct charges ...				72,923	52,95,466
Indirect charges ...	...	...	..	1,356	62 383

The only works chargeable to Capital Account which were carried out during the year were—(a) improving two bad bends in the Jangulia river, which on account of silt deposits had become very difficult to navigate, (b) the construction of tow-paths with rustic bridges in No. 5 subdivision, (c) the construction of a toll-house at Chetla at the entrance of the boat canal. Rupees 16,800 was spent in the construction at the Calcutta Workshops, Sibpur, of six mud barges for use in the Division.

#### 2.—REVENUE ACCOUNT—(Actuals).

REVENUE  
ACCOUNT.

EXPENDITURE—			RECEIPTS—	
	During 1891-92.	During 1892-93.		
	Rs.	Rs.		
DIRECT CHARGES.				
I.—Works, Maintenance and repairs	2,87,044	1,99,686	Navigation ...	5,15,125
			Miscellaneous ...	10,218
II—Revenue Management ...	41,359	39,935	Total ..	5,25,343
Total direct charges	3,28,403	2,39,621	Less—Refunds of revenue.	124
Indirect charges ...	14,996	12,556		4,80,244
Total working expenses ...	3,43,399	2,52,177		
Profit ...	1,81,820	2,27,937		
Total ..	5,25,219	4,80,114	Not total receipts...	5,25,219
				4 80,114

NOTE.—The details by heads of expenditure for the year 1892-93 and nine preceding years will be found in the table given in paragraph 108 following.



108. The receipts on Revenue Account and working expenses for the last ten years are shown in the following statement:—

FINANCIAL  
RESULTS.

	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6	7	8	9	10	11
<b>RECEIPTS.</b>										
Navigation ... ..	Rs. 5,51,713	Rs. 5,20,495	Rs. 5,01,141	Rs. 4,77,100	Rs. 5,74,700	Rs. 5,60,800	Rs. 4,88,800	Rs. 5,10,200	Rs. 5,15,125	Rs. 4,61,716
Miscellaneous ... ..	12,398	40,231	(-)21,067	6,435	5,108	5,224	7,512	5,953	10,218	15,538
<b>Total</b> ... ..	5,64,101	5,60,726	4,79,484	4,83,634	5,79,808	5,75,144	4,96,312	5,25,140	5,25,343	4,77,254
<b>Less—Refunds of revenue</b> ... ..						19	78	61	124	130
<b>Net total receipts</b> ... ..	5,64,101	5,60,726	4,79,484	4,83,634	5,79,808	5,75,125	4,95,543	5,25,085	5,25,219	4,80,114
<b>WORKING EXPENSES.</b>										
<b>Direct charges.</b>										
Works (extensions and improvements) ... ..	27,897	78,575	32,277	5,092	1,478	4,573	1,244	34,070	36,389	(-)28,406
Maintenance and repairs ... ..	1,02,316	99,262	67,142	1,02,490	1,04,527	1,03,466	1,05,315	1,49,872	1,72,457	1,05,233
Establishment ... ..	81,478	93,013	67,584	66,923	88,168	84,665	80,899	1,02,384	1,07,116	89,669
Tools and plant ... ..	8,933	7,312	18,944	8,847	18,130	29,054	13,510	20,691	12,541	13,207
<b>Total direct charges</b> ... ..	2,20,624	2,78,162	1,86,947	1,82,888	2,12,302	2,81,948	2,86,968	3,06,023	3,26,403	2,30,621
<b>Indirect charges.</b>										
Capitalization or abatement of land revenue ... ..										
Leave and pension allowances ... ..	11,407	13,022	9,402	9,376	12,344	11,853	12,165	14,334	14,096	12,550
<b>Total indirect charges</b> ... ..	11,407	13,022	9,402	9,376	12,344	11,853	12,165	14,334	14,096	12,550
<b>Total working expenses</b> ... ..	2,32,031	2,91,184	1,96,209	1,92,264	2,24,646	2,93,801	2,99,133	3,20,357	3,40,500	2,43,171
<b>Net revenue</b> ... ..	3,32,070	2,78,512	2,83,275	2,91,300	3,55,278	2,81,324	2,16,410	2,04,728	1,84,719	2,37,937

The profits in the working of the canals were Rs. 2,27,937, or 4·2 per cent. on the capital outlay. Results for ten years are given below:—

YEAR.	CAPITAL OUTLAY (DIRECT AND INDIRECT)—		RECEIPTS AND WORKING EXPENSES.			Percentage of net revenue to capital outlay to end of year.
	During the year.	To end of the year.	Gross revenue.	Charges (direct or indirect).	Net revenue.	
1	2	3	4	5	6	7
	Rs.	Rs.	Rs.	Rs.	Rs.	
1883-84 ... ..	1,55,534	52,51,634	5,61,101	2,32,031	3,32,070	6·8
1884-85 ... ..	9,013	52,60,547	(a) 5,69,726	2,91,314	2,78,512	5·2
1885-86 ... ..	(-)12,566	52,17,981	(b) 4,79,184	1,96,209	2,83,275	5·4
1886-87 ... ..	5,293	52,23,274	4,83,634	1,92,264	2,91,300	5·5
1887-88 ... ..	15,842	52,39,116	5,79,808	2,24,666	3,55,278	6·7
1888-89 ... ..	49,369	52,88,485	5,75,125	2,93,801	2,81,324	5·3
1889-90 ... ..	(-)281	52,88,204	4,95,513	2,79,133	2,16,410	4·1
1890-91 ... ..	5,693	52,93,897	5,25,085	3,23,957	2,01,128	3·8
1891-92 ... ..	(-)10,327	52,83,570	5,25,219	3,43,399	1,81,820	3·4
1892-93 ... ..	74,279	53,67,849	4,80,114	2,52,177	2,27,937	4·2

(a) Is Rs. 35,185 larger than it should be by reason of error of account.

(b) Is Rs. 35,185 smaller than ditto ditto ditto.

It will be seen from these figures that the increase in the net revenue derived from the canals during the year was due not to an increase in the receipts which were Rs. 45,105 less than in the previous year, but to a marked reduction in the working expenses of Rs. 91,223 compared with the figures of 1891-92. The large decrease in the net receipts was due almost entirely to the general depression of trade and falling off of exports from Calcutta during the year. As this depression has been very keenly felt by both Railway Companies and shippers, it is not necessary to enter into its details, and to trace its causes is beyond the scope of this note. The other causes that contributed to the falling off in the receipts were the transfer of the carriage of coal by the Oriental Gas Company from the canals to the Eastern Bengal State Railway, the Company having constructed a branch line from their premises to Sealdah; the withdrawal of a large amount of the jute traffic from the canals, owing to it being shipped from Chittagong instead of from Calcutta; the realisation in 1891-92 of a sum of Rs. 2,800 for arrears of rent for godowns

which swelled the receipts of that year compared to those of 1892-93; and the successful competition of the Eastern Bengal State Railway with the canals in a few minor instances.

LENGTHS OF  
CANALS.

109. The lengths of canals open for navigation during the year, including the steamer route, was the same as that of the preceding year 1891-92, viz., 713 miles as detailed below:—

	Miles.
Calcutta and new canals	10
Tolly's Nala with 20 miles of Kaorapookhar khal	37
Total Calcutta Canals	47
Eastern Canals { Inner boat route	189
Outer ditto	127
	316
Steamer route	350
Total Calcutta and Eastern Canals	713

NAVIGATION.

110. The navigation receipts during the last two years by the Collector and Supervisor of the canals and by the Executive Engineer are shown in the following statement:—

CANALS.	Num-ber of boats and rafts.	COLLECTIONS BY COLLECTOR AND SUPERVISOR.						COLLEC-TIONS BY EXECUTIVE ENGINEER.	GRAND TOTAL, GROSS REVENUE.
		Tolls from boats and rafts.	Demurrage.	Ferry tolls.	Tolls from steamers and flats.	Rents of buildings, lands, and other miscellaneous receipts.	Total.	Rents of buildings, lands, and other miscellaneous receipts.	
1	2	3	4	5	6	7	8	9	10
	No.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Calcutta and Eastern	80,414	3,54,752	6,233	4,945	4,935	5,606	3,76,491	11,295	4,80,344
Tolly's Nala	62,174	90,927	979	1,070	...	382	92,458		
Total 1892-93	142,588	4,44,779	7,212	6,015	4,935	5,988	4,68,949	11,295	4,80,244
Total 1891-92	140,748	4,96,980	6,747	5,090	5,455	7,080	5,22,258	2,085	5,25,343

The chief source of revenue from these canals is the tolls from boats and rafts. They amounted to Rs. 4,44,779 during the year against Rs. 4,96,980 of 1891-92, showing a decrease of Rs. 52,201.

The recent construction by some of the leading Steamer Companies of large cargo flats for canal navigation appears to indicate an approaching development in a new direction of the boat traffic which will probably swell the toll receipts in the future.

BOATS.

111. The particulars regarding the boats which used the canals during the last two years are given below:—

CANAL.	YEAR.	NUMBER AND CLASS OF BOATS.					
		Up to 100 maunds.	Betw. on 100 and 1,000 maunds.	Between 1,000 and 2,500 maunds.	Between 2,500 and 5,000 maunds.	Over 5,000 maunds.	Total.
1	2	3	4	5	6	7	8
Calcutta and Eastern Canals.	1892-93	36,389	20,678	17,369	52,11	710	80,365
Tolly's Nala	1892-93	15,716	18,425	4,310	42	...	36,493
Total	1892-93	52,105	37,083	21,679	52,53	716	116,858
Calcutta and Eastern Canals.	1891-92	36,117	24,552	20,178	2,802	98	83,747
Tolly's Nala	1891-92	17,331	19,100	6,104	73	...	42,608
Total	1891-92	53,448	43,652	26,282	2,875	98	126,356

There was a general decrease in all classes of boats up to 2,500 maunds and an increase in those above it. The decrease is mainly due to the falling off in the rice traffic, while the increase in the number of larger boats is attributed to the preference given them by the mahajans who find them more economical than small ones.

The number of small boats and dinghies, which entering Tolly's Nala from Kourapukhar, pay toll at Kussa, was 25,607 against 23,244 in 1891-92. They are not classified.

The following table gives the tonnage of boats by canal measurement and the estimated weight and value of the cargoes for the Calcutta Canals and Tolly's Nala compared with the corresponding figures for 1891-92 :—

	Number of boats	Tonnage of boats by canal measurement.	Weight of cargo carried	Value of cargo carried.	Tollage including demurrage.	Percentage of toll on value of cargo.
1	2	3	4	5	6	7
1892-93 .. { Calcutta Canals	No. 80,363	Tons 1,686 150	Tons 603 906	Rs. 5,27 61,674	Rs. 3 65,898	
.. { Tolly's Nala ...	62,100	574,606	193,552	1,39 99 716	90,704	
Total ..	142,463	2 260,756	797 458	6,67 61,390	4,56,002	0 68
1891-92 .. { Calcutta Canals	83 717	1 872,508	639,822	5,57 69,888	3,96,613	
.. { Tolly's Nala	65,852	692,744	212 011	1,50,91,127	1,12,240	
Total ..	149,569	2,565,252	851,833	7,14,61,015	5,08,853	0 71

The dulness in the rice trade in Calcutta during the year is probably the principal cause of the decrease in all items of traffic.

112. The continued reduction in the number of missing tickets is shown by the figures below, and shows that the toll system is steadily improving.

YEAR.	No.	YEAR.	No.
1883-84 ..	3,086	1888-89 ..	329
1884-85 ...	1,104	1889-90 ..	238
1885-86 ..	653	1890-91 ...	212
1886-87 ...	542	1891-92 ..	210
1887-88 ...	677	1892-93 ...	169

113. The cost of the revenue establishment employed on toll collections for the last five years is shown below :—

PARTICULARS	1888-89.	1889-90	1890-91	1891-92	1892-93
1	2	3	4	5	6
	Rs.	Rs.	Rs.	Rs.	Rs.
Salary and commission of Supervisor ...	13 972	11 053	11,475	11 863	10,529
Salary of Canal Inspector ..	4,034	3,900	5 172	5 116	5,013
Supervisor's office establishment	5,183	5 142	5 155	5 424	6,076
Canal police ...	2,060	2 000	2 061	2,049	2,059
Supervisor's steam-launch establishment ...	944	735	98		
Inspector's and chalan boat establishment ...	1,112	1,138	1,046	1,036	696
Dhappa water-boat establishment	180	173	168	168	166
Dafadar ..	...	...	271	490	828
Travelling allowance ...	11	39	22	71	71
Contingencies ...	1,401	1 627	1,261	3,125	2,106
Toll-collecting establishment ..	9,787*	10 424*	11,478*	12,127*	12,891
Total cost of establishment	87,684	83,281	38,210	41,359	39,935

\* Includes salary of darogas, clerks, cashiers, koolnavises, k yals, toll peons and dinghies with crew.

These figures show a decrease in the total cost of establishment Rs. 1,424 compared with those of the previous year.

## MISCELLANEOUS RECEIPTS.

114. The miscellaneous receipts during the year were Rs. 15,528 against Rs. 10,218 in 1891-92, showing an increase of Rs. 5,310. This was mainly due to the crediting under this head of the sale proceeds of certain canal surplus lands, and also of the security deposit of the Pacheco Trading Company, who failed to supply stone metal in accordance with the terms of their contract.

## EXTENSIONS AND IMPROVEMENTS.

115. Under this head Rs. 1,502 was spent during the year, of which Rs. 256 was on the construction of a latrine in the compound of the Chitpur Lock and Rs. 1,246 on the iron girder bridge over Tolly's Nala at Kalighat which had been completed during the previous year. The recovery of Rs. 30,000, contributed by the Calcutta Municipality towards this work, converts the total expenditure under this head into a credit balance of Rs. 28,498.

## MAINTENANCE AND REPAIRS.

116. The cost of maintenance of the canal by sub-heads as compared with that of the previous year is given below:—

CANALS.	Locks.	Masonry bridge.	Roads.	Buildings.	Plantations.	Dredging.	Channel and banks.	Towpath.	River bridges.	Steam-launches.	Miscellaneous.	Drainage.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Calcutta Canals, 1892-93 ..	2,546	3,820	16,191	1,571	103	10,935	6,217	942	509	4,919	10,939	...	59,047
Ditto, 1891-92 ...	12,039	4,116	16,251	2,191	513	16,869	367	1,114	369	3,705	14,963	1,297	73,808
Tolly's Nala, 1892-93 ..	..	4,179	231	1,167	..	..	1,159	389	217	..	88	..	7,430
Ditto, 1891-92 ..	..	4,712	218	621	..	..	1,620	375	179	..	226	..	7,951
Steamer route, 1892-93 ...	..	..	..	..	..	..	..	..	..	..	2,091	..	2,091
Ditto, 1891-92 ...	..	..	..	..	..	..	..	..	..	..	1,920	..	1,920
Eastern Canals, 1892-93 ..	..	..	..	1,850	999	8,657	41,373	16,072	19,873	..	4,912	..	96,656
Ditto, 1891-92 ...	..	..	..	2,779	736	7,249	27,986	15,754	20,072	..	4,202	..	88,778
Total, 1892-93 ..	2,546	7,999	16,422	4,583	1,322	19,592	51,779	17,403	20,500	4,919	18,033	...	1,65,223
Total, 1891-92	12,039	8,828	16,432	5,594	1,219	24,118	39,973	17,243	20,620	3,703	21,311	1,297	1,72,457

The expenditure of the year shows a decrease of Rs. 7,234 compared with that of 1891-92. The causes of the increase and decrease under the several sub-heads may be briefly noticed. The decrease of Rs. 9,493 under the head 'Locks' was because the canal locks needed no extensive repairs during the year. Under the head 'buildings' the decrease is nearly Rs. 1,000, due to the fact that extensive repairs to certain buildings in 1891-92 were not needed in 1892-93.

Under the head 'dredging' the decrease is Rs. 4,526, very little dredging was done during the year, and the expenditure would have been still less than it was, but for the fact that an arrear of Rs. 16,000 for silt clearance in Bhangor and Assassooni khals done in 1891-92 was paid in 1892-93.

Under "channel and banks" the increase was Rs. 11,806, due to a variety of petty works being required. Under the head 'miscellaneous' a new latrine constructed in 1891-92 at a cost of Rs. 3,845 swelled the accounts of that year, and as no such works were found necessary during the year under review, the decrease amounted to Rs. 3,390.

117. The quantity of silt dredged, the expenditure incurred, and the rate per 1,000 cubic feet during the year, including the cost of delivering the mud are shown below:—

DREDGING AND  
SILT CLEAR-  
ANCE.

	Quantity dredged.	Cost.	Rate per 1,000 cubic feet.
1	2	3	4
	C. feet.	Rs.	Rs. A. P.
Steam dredger <i>Victoria</i> ...	1,384,875	8,282	5 15 0
Fouracres' dredger ...	556,680	4,690	8 6 1
Marchant's dredger ...	273,900	2,719	9 14 9
Hydraulic dredger <i>Clinker</i> ...	756,600	6,133	7 14 11

Omitting the cost of delivering the mud, the rates of dredging proper, exclusive of the cost of repairs and of interest on original cost, were per 1,000 cubic feet—

	Rs. A. P.
Steam dredger <i>Victoria</i> ...	4 0 7
Fouracres' dredger ...	3 1 0
Marchant's dredger ...	0 12 1
Hydraulic dredger <i>Clinker</i> ...	2 11 0

118. The state of the plantations for the last two years is shown below:— PLANTATIONS.

YEAR.	Trees over 12 feet.	Saplings from 4 to 12 feet.	Seedlings below 4 feet.	Total.
1	2	3	4	5
	No.	No.	No.	No.
1891-92 ...	2,307	1,381	1,308	4,996
1892-93 ...	2,304	1,627	1,773	5,104

The cost incurred during the year was Rs. 1,322 against Rs. 1,249 in 1891-92.

119. *Floods.*—There were no high floods during the year in any of the rivers crossed by the Calcutta and Eastern Canals. The highest gauge readings of the river Hooghly at Chitpur, Salt-Water Lake at Dhappa, and river Ichamati at Titulia are shown in the following statement:—

FLOODS.

River.	Locality.	1892-93.		1891-92.		HIGHEST KNOWN.	
		Date.	Height, R. L.	Date.	Height, R. L.	Date.	Height R. L.
1	2	3	4	5	6	7	8
Hooghly ...	Chitpur ...	9th September 1893 ...	17'48	21st August 1891 ...	17'07	(a) 31st August 1890 ...	18'40
Salt-water lake or lake-channel ...	Dhappa ...	Ditto ...	7'98	20th ditto ...	7'73	(b) 9th September 1893	7'08
Ichamati (Bulit Bhal) ...	Titulia (river gauge) ...	Ditto ...	8'50	22nd ditto ...	8'00	(c) 19th September 1895	10'43
Ditto ...	Do. (bhal gauge) ...	2nd November 1892 ...	6'50	27th September 1891 ...	6'75	(c) 8th September 1889...	14'15

(a) Highest since 1883. (b) Highest since 1882.  
(c) Highest since 1885.

## ORISSA COAST CANAL.

120. The Capital and Revenue Accounts of this canal are given below :—

CAPITAL  
ACCOUNT.

## 1.—CAPITAL ACCOUNT.

HEADS OF ACCOUNT.	Outlay during 1892-93.	Outlay to end of 1892-93.
1	2	3
	Rs.	Rs.
Direct charges ... ..	2,460	42,44,752
Less—Receipts on capital account ... ..	...	3,293
Total direct charges ...	2,460	42,41,459
Indirect charges ... ..	22	1,02,975

The canal was open throughout its entire length of 97½ miles. The only work which remained to be completed during the year was the Panchpally dock on Range IVA. Fair progress had been made on it before the year closed. The measures to be adopted, in view of the changes in the Subarnarekha river, to secure an easy communication between the Jamcunda and Bhograi locks are under consideration.

REVENUE  
ACCOUNT.

## 2.—REVENUE ACCOUNT—(Actuals).

PARTICULARS.	EXPENDITURE—		PARTICULARS.	RECEIPTS—	
	During 1891-92.	During 1892-93.		During 1891-92.	During 1892-93.
1	2	3	4	5	6
	Rs.	Rs.		Rs.	Rs.
DIRECT CHARGES.			Water-rates ...	...	...
I.—Maintenance and repairs ...	69,162	69,419	Navigation ...	60,051	55,832
II.—Revenue manage-ment ...	6,134	6,856	Miscellaneous ...	2,072	9,149
Total direct charges ...	75,296	76,275	Total ...	62,123	64,981
Indirect charges ...	3,253	3,377	Less—Refunds of revenue ...	66	47
Total working expenses	78,549	79,652			
Net revenue ...	(—)16,492	(—)14,718			
Total ...	62,057	64,934	Net total receipts	62,057	64,934

NOTE.—The details by heads of expenditure for the year 1892-93 and seven preceding years will be found in the table given in paragraph 121 following.

There was an improvement in the total receipts of Rs. 2,877 over the figures of the previous year, but the working expenses still exceeded the receipts by Rs. 14,718. The tolls, however, realised in March and amounting to Rs. 9,663 show what the canal can do, and there is reason to consider the prospect more hopeful, and that the stimulus to traffic afforded by the recent reductions in the through tolls will result in an increase in the receipts.

121. The receipts on Revenue account and working expenses of the canal for the last eight years are shown in the following statement:—

FINANCIAL RESULTS.

	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6	7	8	9
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
<b>RECEIPTS.</b>								
Water-rates ...	1	(—) 1	.....	.....	61	.....	.....	...
Navigation ...	13,663	28,587	52,828	65,917	63,724	64,220	60,061	55,832
Miscellaneous ..	54	902	1,026	1,381	1,563	1,410	2,072	9,149
Total ..	13,718	29,488	53,854	66,428	65,318	65,630	62,123	64,981
Less—Refunds of revenue ...	.....	.....	17	254	15	44	66	47
Net total receipts ...	13,718	29,488	53,837	66,174	65,333	65,586	62,057	64,934
<b>WORKING EXPENSES.</b>								
<b>DIRECT CHARGES.</b>								
<i>I.—Maintenance and Repairs.</i>								
Repairs ...	23,155	43,969	53,277	42,603	50,528	42,312	48,598	45,490
Establishment, including direction and accounts ...	5,326	10,120	14,289	11,377	926	15,462	17,100	17,266
Tools and plant ...	791	3,432	8,713	14,162	10,513	9,794	3,464	6,663
Total ..	29,272	57,521	76,309	68,145	61,967	67,568	69,162	69,419
<i>II.—Revenue Management.</i>								
Navigation establishment ...	609	2,183	4,559	6,123	6,041	6,208	6,134	6,856
Total direct charges ...	29,881	59,704	80,868	74,568	68,011	73,760	75,296	76,275
<b>INDIRECT CHARGES.</b>								
Capitalized abatement of land revenue ...	.....	.....	.....	.....	.....	.....	.....	...
Leave and pension allowances ...	831	1,722	2,639	2,450	975	3,032	3,253	3,377
Total indirect charges ..	831	1,722	2,639	2,450	975	3,032	3,253	3,377
Total working expenses	30,712	61,426	83,507	77,018	68,986	76,798	78,549	79,652
Net revenue ...	(—) 16,994	(—) 31,938	(—) 29,670	(—) 10,844	(—) 3,653	(—) 11,212	(—) 16,492	(—) 14,718

The total direct charges were Rs. 979 higher than those of last year, though the cost of repairs was Rs. 3,108 lower. The excess charges were chiefly under Tools and Plant, and were caused by repairs which were necessary to the steamer "*Falcon*" and to dredgers, punts, barges and other floating plant.

On works alone the cost of maintenance was at the rate of Rs. 466 per mile against Rs. 498 of the preceding year. The constant work that is required at the Sabarnarekha crossing to keep the river channels navigable swells to no inconsiderable degree the yearly maintenance charges.

NAVIGATION.

122. As compared with 1891-92 an increase of traffic on all ranges except range III took place, and a large number of Bengali boats from and beyond Ghatal came for the time on to Range V.

The tollage receipts on each range of the canal for the last five years are shown below:—

RANGES.		Miles of canal open.	TOLLAGE RECEIPTS.				
			1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1		2	3	4	5	6	7
			Rs.	Rs.	Rs.	Rs.	Rs.
Range III	...	36	45,575	37,743	37,731	38,231	30,238
Do. IVA	...	17	4,110	3,654	4,121	3,067	5,579
Do. IVB	...	6½	5,729	8,468	7,748	7,441	7,467
Do. V	...	38	9,596	13,859	14,620	11,312	12,548
Total	...	97½*	65,010	63,724	64,220	60,051	55,832

\* Exclusive of 4½ miles of river crossings.

TRAFFIC.

123. The traffic on the canal during the year 1892-93, compared with that of the previous year, is shown in the following statement:—

	Number of boats.		Tonnage of boats.		Value of cargo, including rafts.		Tolls.	
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
1	2	3	4	5	6	7	8	9
	No.	No.	Tons.	Tons.	Rs.	Rs.	Rs.	Rs.
Orissa Coast Canal	12,543	12,185	110,687	100,807	22,27,281	22,78,905	60,051	55,832

MISCELLANEOUS RECEIPTS.

124. The miscellaneous receipts during the last five years are shown below:—

1888-89.	1888-90.	1890-91.	1891-92.	1892-93.
Rs.	Rs.	Rs.	Rs.	Rs.
1,381	1,563	1,410	2,072	9,149



125. Two dredgers, the *Comus* and the *Marchant*, were at work during the year in excavating silt at Bhaithgar lock and at certain points along Range V, where the crossing of thousands of cattle had caused the accumulation of bars of silt. The quantity dredged, and the cost and rate per 1,000 cubic feet, for the last two years are shown in the following table:—

DREDGING  
AND SILT  
CLEARANCE.

YEAR.	Names of dredgers.	Quantity dredged.	COST OF—			RATE PER 1,000 C.Ft.		
			Lifting by dredger.	Removing by mud-punts.	Total.	Lifting.	Removing.	Total.
1	2	3	4	5	6	7	8	9
1891-92 ...	<i>Comus</i> with 10 mud-punts.	395,950	2,138	1,406	3,544	Rs. A. P. 5 6 5	Rs. A. P. 3 8 0	Rs. A. P. 8 14 5
1892-93 {	<i>Comus</i> with 10 mud-punts.	180,275	824	845	1,669	4 9 0	4 11 0	9 4 0
	<i>Marchant</i> with 10 mud-punts.	483,500	2,195	1,692	3,887	4 8 6	3 8 0	8 0 6
	Total ...	663,775	3,019	2,537	5,556	4 8 9	3 13 0	8 5 9

126. The state of the plantations for the last two years is shown in the following statement:—

PLANTATIONS.

YEAR.	Trees over 12 feet in height.	Saplings between 4 and 12 feet.	Seedlings under 4 feet.	Total.
1	2	3	4	5
	No.	No.	No.	No.
1891-92 ...	495	1 110	2,357	3,962
1892-93 ...	633	1,227	2,692	4,552

127. There were no heavy floods in any of the rivers crossed by the Orissa Coast Canal and no appreciable damage done. The highest gauge-readings of the rivers are shown in the following statement:—

FLOODS.

NAME OF RIVER.	Locality.	1892-93.		1891-92.		HIGHEST RECORDED READING.		REMARKS.
		Date.	Reading.	Date.	Reading.	Date.	Reading.	
1	2	3	4	5	6	7	8	9
Subarnarekha	Bhograi ...	19th July 1892	113'30	14th August 1891 ...	116'00	Date of record not obtainable from records.	121'	Height recorded on plans of maximum flood, but dates not given.
Panchpara	Panchpara ...	9th September "	112'20	14th " " "	112'50	Ditto ...	118'00	
Burrabullong	Nulcool ...	9th " " "	113'50	24th September 1891	114'70	Ditto ...	118'00	
Mutia	Charbatia ...	11th June "	111'50	23rd " " "	110'30	Ditto ...	116'5	

## SARAN CANALS.

128. The Capital and Revenue Accounts of these canals are given below:—

CAPITAL  
ACCOUNT.

## 1.—CAPITAL ACCOUNT.

HEADS OF ACCOUNT.	Outlay during 1892-93.	Outlay to end of 1892-93.
1	2	3
Direct charges ...	Rs. ...	Rs. 6,70,068
Less—Receipts on Capital Account ...	... ..	498
Total direct charges ..	...	6,69,570
Indirect charges ... ..	...	27,183

The Capital Account has been closed.

REVENUE  
ACCOUNT.

## 2.—REVENUE ACCOUNT—(Actuals).

PARTICULARS.	EXPENDITURE—		PARTICULARS.	RECEIPTS—	
	During 1891-92.	During 1892-93.		During 1891-92.	During 1892-93.
1	2	3	4	5	6
DIRECT CHARGES.	Rs.	Rs.		Rs.	Rs.
Maintenance and repairs.	12,538	13,502	Water-rates ...	15,785	1,492
			Navigation ...	...	...
			Miscellaneous ...	46	34
			Total ...	15,831	1,526
INDIRECT CHARGES.	519	528	Less—Refunds of revenue.	...	...
Total working expenses	13,057	14,030			
Net revenue ...	2,774	(-) 12,504			
Total ...	15,831	1,526	Net total receipts	15,831	1,526

NOTE.—The details by heads of expenditure for the year 1892-93 and nine preceding years will be found in the table given in paragraph 129 following.

FINANCIAL  
RESULTS.

129. The receipts on Revenue Account and working expenses of the Saran Canals for the last ten years are shown in the following statement:—

	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-90.	1900-91.	1901-92.	1902-93.
1	2	3	4	5	6	7	8	9	10	11
RECEIPTS.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Water-rates	22,057	8,897	39,737	11,072	21,070	20,415	22,990	36,823	15,785	1,492
Navigation	13	1	...	...	...	...	...	...	...	...
Miscellaneous	971	943	1,496	1,355	(-) 405	309	123	160	46	34
Total	23,041	9,841	41,143	12,427	20,665	20,814	23,113	36,983	15,831	1,526
Less—Refunds of revenue	...	...	...	...	...	...	...	...	...	...
Net total receipts	23,041	9,841	41,143	12,427	20,665	20,814	23,113	36,983	15,831	1,526
WORKING EXPENSES										
Direct charges.										
Maintenance and repairs ...	20,653	19,983	18,014	23,481	18,091	23,976	24,900	26,454	9,021	9,517
Establishment	1,551	4,596	4,144	5,900	9,119	10,348	12,322	10,569	3,710	3,772
Tools and plant	(-) 2,069	371	593	(-) 978	403	673	991	389	(-) 193	818
Total direct charges	20,135	24,950	22,751	27,903	28,613	34,897	38,213	37,403	12,538	13,502
Indirect charges.										
Capitalization of abatement of land revenue	...	...	...	...	...	...	...	...	...	...
Leave and pension allowances	665	643	580	756	1,277	1,435	1,739	1,478	519	528
Total indirect charges	665	643	580	756	1,277	1,435	1,739	1,478	519	528
Total working expenses	20,800	25,593	23,331	28,659	29,890	36,332	40,052	38,881	13,057	14,030
Net revenue	(-) 1,025	(-) 10,252	17,812	(-) 16,232	(-) 8,732	(-) 15,518	(-) 16,939	(-) 1,898	2,774	(-) 12,504

130. The lengths of canal and distributaries in operation at the close of the year 1892-93, compared with 1891-92, are given in the following table:—

LENGTH OF  
CANALS OPEN  
AND AREAS  
COMMANDED  
AND IRRIGA-  
TED.

NAME OF CANAL.	1891-92.								1892-93.							
	Navigable canals.	Canals for irrigation only.	Distributaries and village channels.	Area protected from flood.	Area under command.	Area provided with distributaries.	Area irrigated.	Percentage of area irrigated to area provided with distributaries.	Navigable canals.	Canals for irrigation only.	Distributaries and village channels.	Area protected from flood.	Area under command.	Area provided with distributaries.	Area irrigated.	Percentage of area irrigated to area provided with distributaries.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>Saran Canals.</i>	Miles				Acres.		Acres.		Miles				Acres.		Acres.	
Main canal or head cut	6.34								6.34							
<i>Branch Canals.</i>																
I.—Daha feeder ...	3.34				64,000		3,560		3.34				64,000		5,065	
II.—Gandaki ...	1.57								1.57							
III.—Dhumi ...	1.00								1.00							
IV.—Gangei ...	6.57								6.57							
In addition to the above, the following are maintained:—																
I.—Thakraha Soti	1.50								1.50							
II.—Roopan Chap Soti	27.00								27.00							

There was no alteration in the lengths of the cuts and channels constructed and maintained by the Manager of the Moniara Estate, which aggregate about 33 miles. No distributaries or village channels are maintained by Government. There are nine permanent dams and regulators in the branch canals, and twenty-five temporary bunds were constructed during the year to regulate the supply of water.

131. The average rainfall on the area under command is shown by seasons in the table below for the last four years:—

RAINFALL.

	1889-90.	1890-91.	1891-92.	1892-93.
	Inches.	Inches.	Inches.	Inches.
Kharif season*...	... 19.47	... 24.60	... 11.52	... 27.52
Rabi ...	... 1.20	... 1.43	... 0.61	... 2.33
Year ...	... 45.09	... 53.63	... 35.05	... 48.82

\* August, September and October.

The total rainfall was slightly in excess of the normal, but in October there was no rainfall, and there was in consequence a large demand for water for rice irrigation.

132. A very high flood occurred in the river Gandak in August 1892. The height reached at Sisua was only 0.83 below the maximum recorded. No damage to the canals resulted.

FLOODS.

133. The areas irrigated as obtained from the Canal Manager's reports during the past ten years, together with the rainfall, are given in the table below:—

IRRIGATION

YEAR.	Kharif.	Rabi.	Perennial.	Total.	Rainfall.
1	2	3	4	5	6
	Acres.	Acres.	Acres.	Acres.	Inches.
1882-83	...	...	...	1,747	40.89
1883-84	...	...	...	21,122	26.32
1884-85	...	...	...	7,223	35.42
1885-86	...	...	...	4,565	39.27
1886-87	...	...	...	2,146	60.96
1887-88	...	...	...	4,218	39.63
1888-89	...	...	...	7,213	42.39
1889-90	...	...	...	4,215	45.09
1890-91	...	...	...	2,226	58.63
1891-92	...	...	...	5,965	35.05
1892-93	...	...	...	3,560	48.82

DUTY OF  
WATER.

134. The duty of water cannot be calculated, as there is no regular irrigation, and the canals are drainage as well as irrigation channels.

The agreement with the proprietors of Moniara and Sadowa under which the canals were worked in 1891-92 was subsequently revised, and a new agreement between the Secretary of State and the proprietors was entered into. This agreement cancelled the previous one, and its terms consequently embraced both the years 1891-92 and 1892-93. Under it the lessees are to pay Government the actual cost of maintaining the canals, excluding the cost of establishment up to a limit of Rs. 22,000 for the two years, less the net amounts realized from irrigation and the sale of water, &c., outside the limits of their debats. Government on the other hand undertakes to maintain the canals in good order, but to limit the expenditure on maintenance for the two years to Rs. 22,000 excluding the cost of establishment. It is, however, very doubtful whether this agreement will ever form a permanent basis for the administration of the Saran canals. The Manager of the Sadowa Estate has shown no desire for the extension of the agreement, and it is more than probable that Government will eventually be compelled to close the canals.

ASSESSMENTS,  
COLLECTIONS  
AND  
BALANCES.

135. The following comparative statement shows the balances, assessments, and recoveries of water-rates for the last thirteen years:—

YEAR.	Amount out- standing at commencement of year.	Amount falling due during the year.	Total for recovery.	Cash realization.	Remitted or written off.	Balance at the end of the year.
1	2	3	4	5	6	7
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1880-81	...	9,750 0 0	9,750 0 0	10,080 6 9	...	330 6 9
1881-82	330 6 9	23,000 0 0	23,660 9 3	5,871 12 0	...	16,794 13 3
1882-83	16,794 13 3	21,750 0 0	38,544 13 3	16,506 0 6	...	22,038 12 9
1883-84	22,038 12 9	21,750 0 0	43,788 12 9	22,553 10 3	...	20,829 2 6
1884-85	20,829 2 6	21,750 0 0	42,579 2 6	8,956 11 3	...	33,662 7 3
1885-86	33,662 7 3	21,750 0 0	55,382 7 3	33,718 9 3	2,770 11 1	12,863 0 8
1886-87	12,863 0 8	21,750 0 0	34,613 0 8	11,072 10 3	...	23,540 6 3
1887-88	23,540 6 3	21,850 0 0	45,390 6 3	21,069 9 0	...	24,320 13 3
1888-89	24,320 13 3	21,850 0 0	46,170 13 3	20,116 0 0	...	25,755 13 3
1889-90	25,755 13 3	21,850 0 0	47,605 13 3	22,999 0 3	1,250 0 0	23,365 13 0
1890-91	23,365 13 0	21,850 0 0	45,215 13 0	31,953 2 9	...	8,179 10 3
1891-92	8,179 10 3	11,000 0 0	19,179 10 3	15,789 8 4	231 4 6	3,162 13 5
1892-93	3,162 13 5	11,000 0 0	14,162 13 5	1,491 11 4	...	12,671 2 1

The outstanding balance shows an increase from Rs. 3,163 to Rs. 12,671 at the end of the year under review.

MAINTENANCE  
AND REPAIRS.

136. The following table shows the expenditure on maintenance during the past four years:—

	Miles	1889-90.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6
		Rs.	Rs.	Rs.	Rs.
Repairs to head cut and river protective works	6.34	10,026	7,445	4,304	1,341
Repairs to Daha feeder	3.34	909	1,290	357	514
„ to Gandaki feeder	1.57	1,118	1,735	221	1,550
„ to Dhanai feeder	1.00	722	592	65	411
„ to Gangri feeder	6.57	768	2,777	129	565
„ to dams and channels for irrigation purposes	...	11,357	12,615	3,945	5,106
Total	...	24,900	26,454	9,021	9,517
Establishment	...	12,422	10,560	3,710	3,772
Tools and plant (actual)	...	991	389	(—)193	213
GRAND TOTAL	...	38,313	37,403	12,538	13,502

The cost of maintaining the head works was much less during the year than in 1891-92. The reason of this is that there was no time for clearing silt from the head cut on account of the early demand for water, and consequently there was no expenditure under this head.

137. There are no dredgers on the canals, and the silt is removed by hand only. DREDGING AND  
SILT CLEAR-  
ANCE.

The following statement shows the total quantity of silt removed from the canals and the cost during the year as compared with the two previous years:—

	1890-91.		1891-92.		1892-93.	
1	2	3	4	5	6	7
	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.
Head cut or main canal .	342,745	1,740	44,465	244	18,201	100
Feeders or branch canals	1,339,675	4,080	21,755	95	445,891	1,567
Thakaraha Sota mouth ...	549,781	2,077	591,957	1,785	383,159	1,149
Total ...	2,232,201	7,897	664,177	2,124	847,258	2,816

138. The state of the plantations for the last two years is shown below:— PLANTATIONS.

YEAR.	Trees over 12 feet.	Saplings between 4 and 12 feet.	Seed- lings under 4 feet.	TOTAL.
1	2	3	4	5
	No.	No.	No.	No.
1891-92 ...	2,642	2,979	3,993	9,614
1892-93 ...	4,939	6,973	6,983	18,895

These figures show that the number of trees has increased from 9,614 to 18,895. The expenditure has decreased from Rs. 57 to Rs. 45.

#### NADIA RIVERS.

139. The approximate length of the channels comprising the Nadia rivers' system is 477 miles. No capital account of expenditure is kept. The revenue account for the last two years is given below:— REVENUE  
ACCOUNT.

PARTICULARS.	EXPENDITURE.		PARTICULARS.	RECEIPTS.	
	During 1891-92.	During 1892-93.		During 1891-92.	During 1892-93.
	Rs.	Rs.		Rs.	Rs.
DIRECT CHARGES.					
I.—Maintenance and repairs ...	83,723	1,00,772	Navigation ...	1,92,718	1,65,380
II.—Revenue manage-ment ...	23,134	22,282	Miscellaneous ...	247	158
Total direct charges ...	1,06,857	1,23,054	Total ...	1,92,965	1,65,538
Indirect charges ...	6,417	7,221	Less—Refunds of revenue ...	228	18
Total working expen-ses ...	1,13,274	1,30,275			
Profit ...	79,463	35,245			
Total ...	1,92,737	1,65,520	Net total receipts	1,92,737	1,65,520

NOTE.—The details by heads of expenditure for the year 1892-93 and nine preceding years will be found in the table given in paragraph 140 following.

FINANCIAL  
RESULTS.

140. The receipts on revenue account and working expenses for the last ten years are shown below :—

	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-00.	1900-01.	1891-92.	1892-93.
1	2	3	4	5	6	7	8	9	10	11
<b>RECEIPTS.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>
Navigation ... ..	2,00,008	1,04,981	1,83,392	2,02,707	1,98,318	1,91,791	1,85,083	2,00,508	1,92,718	1,05,390
Miscellaneous ... ..	1,026	476	399	543	357	97	60	136	247	168
<b>Total</b> ... ..	<b>2,02,834</b>	<b>1,95,457</b>	<b>1,83,791</b>	<b>2,03,250</b>	<b>1,98,675</b>	<b>1,91,888</b>	<b>1,85,143</b>	<b>2,00,644</b>	<b>1,92,965</b>	<b>1,05,558</b>
<b>Less—Refunds of revenue</b> ... ..	...	...	...	...	...	...	220	162	228	18
<b>Total receipts</b> ... ..	<b>2,02,834</b>	<b>1,95,457</b>	<b>1,83,791</b>	<b>2,03,250</b>	<b>1,98,675</b>	<b>1,91,888</b>	<b>1,85,823</b>	<b>2,00,482</b>	<b>1,92,737</b>	<b>1,05,520</b>
<b>WORKING EXPENSES.</b>										
<b>Direct Charges.</b>										
Works (extensions and im-										
provements) ... ..	1,031	39								
Maintenance and repairs ... ..	82,533	69,790	43,084	29,001	48,201	89,333	47,843	92,482	69,704	68,763
Establishment ... ..	40,335	31,766	31,563	29,293	41,395	43,395	38,737	49,110	45,398	51,581
Tools and plant ... ..	(- 11,502)	1,719	1,759	1,499	3,591	2,380	2,250	2,476	1,330	1,644
Suspense accounts ... ..	2,897	(- 11,559)	1,263	450	(- 11,697)	(- ) 14	1,956	3,169	(- ) 3,015	1,000
<b>Total direct charges</b> ... ..	<b>1,25,275</b>	<b>95,776</b>	<b>77,698</b>	<b>69,243</b>	<b>92,022</b>	<b>1,31,694</b>	<b>87,594</b>	<b>1,02,597</b>	<b>1,09,847</b>	<b>1,23,054</b>
<b>Indirect Charges.</b>										
Leave and pension allowances ... ..	5,617	4,867	4,419	4,101	5,876	6,075	5,395	6,357	6,417	7,221
<b>Total indirect charges</b> ... ..	<b>5,617</b>	<b>4,867</b>	<b>4,419</b>	<b>4,101</b>	<b>5,876</b>	<b>6,075</b>	<b>5,395</b>	<b>6,357</b>	<b>6,417</b>	<b>7,221</b>
<b>Total working expenses</b> ... ..	<b>1,30,892</b>	<b>1,00,643</b>	<b>82,087</b>	<b>61,344</b>	<b>97,892</b>	<b>1,40,769</b>	<b>92,989</b>	<b>1,08,954</b>	<b>1,13,274</b>	<b>1,30,275</b>
<b>Net revenue</b> ... ..	<b>71,942</b>	<b>94,814</b>	<b>1,01,694</b>	<b>1,38,936</b>	<b>1,00,783</b>	<b>51,119</b>	<b>92,834</b>	<b>91,528</b>	<b>79,463</b>	<b>35,245</b>

There was a heavy fall in the total receipts during the year as compared with 1891-92, the decrease amounting to Rs. 27,217. This was almost entirely due to the abnormally depressed condition of trade during the year, though the bad state of the head of the Mathabhangra river which closed early in the year may have contributed in some measure towards making the net revenue the smallest on record.

141. No rainfall register is kept up for these rivers. The flood of 1892 was higher than that of the previous year, but still much below the highest recorded level.

The gauge readings at Gheria and Berhampore for the last four years are given below :—

	GHERIA.	BERHAMPORE.
1889 ...	34-00	30'1½"
1890 ...	31-70	30'11½"
1891 ...	29-30	26'7"
1892 ...	31-55	29'1½"

A statement showing the highest gauge readings of the Nadia rivers is given below as compared with those of the previous year :—

River.	Locality.	1892-93.		1891-92.		Highest known.	
		Date.	Reading.	Date.	Reading.	Date.	Reading.
1	2	3	4	5	6	7	8
Bhagirathi ..	Berhampore	11th Sept. 1892	62-87	29th Aug. 1891	60-33	14th Aug. 1890	64-71
Jalangi ...	Sarupganj	15th " "	31-71	25th " "	29-38	28th " "	34-88
Mathabhangra ...	Hanskhali	23rd " "	34-22	30th " "	31-85	3rd Sept. " "	39-93

RAINFALL  
AND FLOODS.

142. The number of boats of each class and toll collections by the Collectors are shown below:—

NAVIGATION.

NAME OF RIVER.	NUMBER AND CLASS OF BOATS.						COLLECTIONS BY TOLL COLLECTORS.					
	Up to 100 maunds.	Between 100 and 1,000 maunds.	Between 1,000 and 2,500 maunds.	Between 2,500 and 5,000 maunds.	Over 5,000 maunds.	Total.	Tolls from boats.	Tolls from rafts.	Tolls from steamers and flats.	Total tolls.	Miscellaneous receipts.	Total collections.
1	2	3	4	5	6	7	8	9	10	11	12	13
Bhagirathi ...	No. 6,420	No. 3,355	No. 845	No. 207	No. 5	No. 10,841	Rs. 27,947	Rs. 312	Rs. 2,858	Rs. 31,117	Rs.	Rs.
Ditto and Bhyrub-Jalangi ...	12,873	17,642	1,754	61	1	32,331	91,607	443	14,352	1,00,303	158	1,65,538
Mathabhanga and Ichamati ...	4,730	5,492	620	35		10,783	24,874	68	24	24,961		
Total, 1892-93 ...	41,032	26,180	3,125	303	6	63,955	1,47,425	818	17,134	1,65,380	158	1,65,538
Total, 1891-92 ...	25,197	29,273	4,221	445	7	59,143	1,71,222	1,598	19,896	1,92,718	247	1,93,065

143. The following statement shows the number of boats, tonnage, weight, and value of cargo and toll collections:—

TRAFFIC.

NAME OF RIVER.	Number of boats, inclusive of steamers, flats and rafts.	Tonnage of boats.	Weight of cargo.	Value of cargo.	Toll collection.	Percentage of toll on value of cargo.
1	2	3	4	5	6	7
Bhagirathi ...	No. 10,987	Tons. 161,353	Tons. 73,045	Rs. 51,44,253	Rs. 31,117	...
Ditto and Bhyrub-Janlangi ...	32,948	501,824	193,663	2,66,11,567	1,09,302	...
Mathabhanga and Ichamati ...	10,855	120,312	39,586	35,37,074	24,961	...
Total, 1892-93 ...	54,790	783,489	306,294	3,55,92,894	1,65,380	0.46
Total, 1891-92 ...	60,167	804,623	352,744	3,76,05,221	1,92,718	0.53

144. The cost of the revenue establishment for the last five years is shown below:—

REVENUE ESTABLISHMENT.

	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
1	2	3	4	5	6
	Rs.	Rs.	Rs.	Rs.	Rs.
Salary and commission of Collectors ...	12,671	11,943	13,224	13,210	12,391
Accounts and office establishment	9,397	8,986	9,223	8,942	8,879
Travelling allowance ...	463	390	711	530	601
Contingencies ...	475	441	472	452	411
Total ...	23,006	21,760	23,630	23,134	22,282

The decrease results from the smaller commission earned by toll-collectors and darogas owing to diminished revenue.

The Teur weir was again damaged during the floods of 1892, a large portion of the east revetment having been carried away, with a resulting erosion that at first threatened to outflank the weir.

During a portion of the year, a qualified sub-overseer was especially deputed to reside in the vicinity of the canal and to examine carefully by actual observations its capabilities as regards the areas irrigable. His presence stimulated irrigation, which is usually resorted to in a very half-hearted manner, although no charge is made for water. The development of irrigation from this canal by the construction of distributaries is now under consideration.

No revenue is derived from the canal.

The miscellaneous receipts were Rs. 163 against Rs. 92 in 1891-92.

The areas irrigated during the last three years are shown below:—

IRRIGATION.

Nature of crop.	1890-91.	1891-92.	1892-93.
1	2	3	4
	Acre.	Acre.	Acre.
Kharif ...	...	2,539	4,895
Rabi ...	2	495	150
Poppy ...	852	552	734
Other crops ...	...	...	610
Total	854	3,586	6,400

#### GENERAL RESULTS.

NET REVENUE.

154. The net results of the year 1892-93, compared with those of the previous year, are shown below:—

PARTICULARS.	Receipts from all sources.	Working expenses, including refunds of revenue. (Direct and indirect charges.)	Profit or loss.
1	2	3	4
<b>MAJOR IRRIGATION WORKS.</b>	Rs.	Rs.	Rs.
1891-92 ...	16,02,710	14,42,037	+ 1,60,673
1892-93 ...	18,87,670	14,89,716	+ 3,97,954
<b>MINOR WORKS AND NAVIGATION.</b>			
<i>For which Capital and Revenue accounts are kept.</i>			
1891-92 ...	6,03,297	4,35,195	+ 1,68,102
1892-93 ...	5,46,751	3,46,036	+ 2,00,715
<i>For which only Revenue-accounts are kept.</i>			
1891-92 ...	1,92,965	1,13,502	+ 79,463
1892-93 ...	1,65,538	1,30,293	+ 35,245
<i>For which neither Capital nor Revenue accounts are kept.</i>			
1891-92 ...	10,250	36,208	— 25,958
1892-93 ...	31,276	47,262	— 15,986
<b>Total</b> { 1891-92 ...	24,09,222	20,26,942	+ 3,82,280
{ 1892-93 ...	26,31,235	20,13,307	+ 6,17,928



The actual receipts exceeded the figures of the revised Budget estimates by Rs. 2,07,235, while the expenses were Rs. 1,06,720 more than the budgetted amount.

155. Compared with 1891-92 the net result of the Major Irrigation Works reckoned on earnings, that is, on assessed revenue instead of on actual receipts, was:—

	Earnings.	Working expenses.	Profit or loss.
	Rs.	Rs.	Rs.
1891-92 ...	18,14,485	14,37,935	+ 3,76,550
1892-93 ...	16,09,209	14,85,393	+ 1,23,816

The expenditure was only slightly above the average.

The revenue from Minor Works and Navigation is derived mainly from tollage receipts.

156. The following summary shows the progress in the recovery of water-rates during the year :—

CANAIS.	Outstanding on 1st April 1892.	Demand of 1892-93.	Collected or adjusted.	Outstanding on 1st April 1893.
1	2	3	4	5
	Rs.	Rs.	Rs.	Rs.
Orissa Canals ...	2,33,704	2,61,023	4,04,911	89,816
Midnapore Canal ...	58,972	1,39,990	1,50,395	48,567
Sone Canals ...	1,11,444	9,50,732	9,74,386	87,790
Total ...	4,04,120	13,51,745	15,29,692	2,26,173

157. The approximate value of crops irrigated by Major Irrigation Works during the last two years is shown below :—

CANALS.	1891-92.		1892-93.	
	Area irrigated.	Value of crops.	Area irrigated.	Value of crops.
1	2	3	4	5
	Acres.	Rs.	Acres.	Rs.
Orissa Canals ...	177,685	47,87,546	160,952	42,12,253
Midnapore Canal ...	83,973	20,99,325	91,217	22,80,425
Sone Canals ...	474,723	1,44,85,957	410,761	1,58,91,273
Total ...	736,381	2,13,72,828	662,930	2,23,83,951

The average value per acre of the various crops irrigated has increased from Rs. 29.0 to Rs. 33.7.

158. Two tables are attached as appendices to this note, (I—showing the number of days spent on tour by each officer of the Irrigation Department, (II) the dates of inspections of the divisional and subdivisional offices by each of the Superintending and Executive Engineers during the year 1892-93.

159. The date fixed for the submission of revenue reports to the office of the Chief Engineer is the 5th September. The dates when the different reports were received are shown below :—

		In 1892.	In 1893.
Orissa Circle	Commissioner's report	27th September.	13th October.
	Superintending Engineer's report	23rd ditto.	5th September.
South-Western Circle	Commissioner's report	24th ditto.	21st ditto
	Superintending Engineer's report	17th ditto.	6th ditto
Sone Circle	Commissioner's report	28th ditto.	7th ditto
	Superintending Engineer's report	15th ditto.	7th ditto

All the reports were practically punctual, excepting that of the Commissioner of Orissa, which was not received until the 13th October 1893. The delay was in the office of the Superintending Engineer, who received the report early in July.

160. Last year I remarked that I thought the results of the year's working, which showed a net profit on major and minor works of Rs. 3,82,280, against Rs. 1,42,628 in 1890-91, would be considered satisfactory. This year the net revenue has reached Rs. 6,17,928. In major works only the profit has been Rs. 3,97,954, against Rs. 1,60,673 in 1891-92. If, however, earnings are considered in place of collections, the revenue during 1891-92 was, owing to the failure of the autumn rains in that year, the greater, viz., Rs. 3,76,550, against Rs. 1,20,685 in the year under review. The net revenue is largely dependent on the sum expended on repairs, and by minimizing these, it would be possible to show returns more favourable than the real facts of the case warranted. In 1892-93 the working expenses were Rs. 13,635 only less than in 1891-92, there having been extra expenditure on major works, whilst a smaller sum sufficed to keep the minor works in good order.

161. There is still more, especially in Orissa, great pressure on the staff, the system on which the canals are managed has in that circle been entirely changed during the last two years, and credit is due to the Engineers and subordinates for the energy with which they have endeavoured to meet the altered circumstances. Mr. C. A. White, Executive Engineer in charge of the Kendupatna sub-division, deserves special praise for bringing nearly all the existing irrigation under lease on the conditions approved by Sir Charles Elliott in April 1892. The irrigation from the Eden Canal was very extensive, and Rai Bama Charan Paramanic Bahadur, Honorary Assistant Engineer, had a difficult task in making the most of the water-supply available and in distributing it equitably, in both respect he succeeded. In the body of this note the good work of Babu Saroda Prosad Chatterjee, Deputy Collector, Revenue Division, Sone Canals, and Babu Jagdam Sahai, Deputy Collector, Revenue Division, Orissa Canals, has been frequently alluded to, and they both, I think, deserve the thanks of Government.

C. W. ODLING,

Chief Engineer.

The 25th November 1893.

## APPENDIX I.

*Statement showing the number of days spent on duty by Superintending, Executive, and Assistant Engineers and Upper Subordinates of the Irrigation Branch of the Public Works Department during the year 1892-93.*

NAME.	Circle or Division.	NUMBER OF DAYS—		REMARKS.	
		On duty.	On tour.		
<i>Superintending Engineers.</i>					
Lieut.-Col. A. D. McArthur...	South-Western ...	356	87	On privilege leave for 9 days.	
Mr. D. B. Horn ...	Ditto ...	9	...		
" W. Connan ...	Orissa ...	365	154		
" W. A. Inglis ...	Sone ...	365	190		
<i>Executive Engineers.</i>					
Mr. J. P. Scotland ...	Cossyo ...	365	226	Returned from furlough and joined Division on the 30th December 1892.	
" T. M. L. Thompson ...	Northern Drainage and Embankment.	365	183		
" C. E. Livesay ...	Nadia Rivers ...	365	236		
" D. B. Horn ...	Brahmini-Byturni ...	365	134		
" G. A. G. Shawo ...	Puri, Mahanadi and Superintending Engineer's Office.	92	29		
" T. Butler ...	Mahanadi ...	273	102		On privilege leave for 92 days.
" J. R. Swinden ...	Puri ...	173	64		On 2 years' furlough from 15th October 1892.
" M. H. Arnott ...	Aquapada-Jajpur and Brahmini-Byturni.	365	253		
Rai Bahadur Prosunno Coomarr Danearry.	Puri ...	28	...		Returned from furlough and joined Division on the 4th March 1893.
Mr. C. A. White...	Kendupatna ...	365	248		On 25 days' privilege leave. Joined Division 3rd September 1892.
" H. Barlow ..	Jagatsingapore ...	340	258		
" J. S. L. Long ..	Gandak, Puri, and Kendupatna.	212	87		
" M. J. J. P. Norman ...	Buxar ...	365	169		
" O. C. Lees ...	Gandak ...	274	104	On 91 days' privilege leave.	
" A. S. Thomson ...	Eastern Sone ...	273	110	On 92 days' privilege leave.	
" L. R. Fraser ...	Dehri Workshops ...	365	68	The greater part of the work of this Division is at head-quarters.	
" R. E. Carter ...	Arrah ...	340	156	Transferred to the Orissa Circle from the 6th March 1893.	
" A. E. Silk ...	Brahmini-Byturni ...	14	...	Joined Division on the 18th March 1893.	
" A. E. Silk ...	Arrah ...	6	2	Transferred to Eastern Sone.	
" A. E. Silk ...	Eastern Sone ...	122	35	Joined Division on 11th April 1892. Transferred to the Roads and Buildings Branch from 18th August 1892.	
" C. H. DeMello ...	Arrah ...	25	7	Transferred to Buxar Division.	
" C. H. DeMello ...	Buxar ...	330	179	Took 10 days' joining time.	
" C. H. DeMello ...	Gandak ...	101	44	Transferred from the Roads and Buildings Branch and joined Division on 28th April 1892. Took charge of the division on 7th May 1892. Made over charge on the 6th August 1892.	
" H. H. Green ...	Ditto ...	237	149	Took charge of Siwan sub-division on 7th August 1892.	
" A. Hayes ...	Balasore ...	359	160	On leave for 6 days.	
" T. H. Clowes ...	Ditto ...	314	195	On leave for 7 days. Proceeded on 9 months' furlough from 22nd February 1893.	
<i>Assistant Engineers.</i>					
Mr. A. H. C. MacCarthy ...	Arrah ...	6	...	Transferred to the South-Western Circle.	
Mr. A. H. C. MacCarthy ...	South Western ...	172	88	Joined Superintending Engineer's office from 15th July 1892. Leave on private affairs for 6 months from 3rd January 1893.	
" W. S. Bremner ...	Cossyo ...	365	170	On leave for one day.	
Rai Bahadur Bama Charn Pramanie.	Northern Drainage and Embankment.	365	235		
Mr. J. W. Fox ...	Circular and Eastern Canals.	364	187		
" P. G. Jacobs ...	Eastern Sone ...	297	181		
" P. G. Jacobs ...	Balasore ...	53	31	Transferred to the South-Western Circle.	
" J. O. Hewitt ...	Buxar ...	292	156	Joined Division on 7th February 1893.	
" J. O. Hewitt ...	Eastern Sone ...	73	45	On leave for 25 days. Joined Superintending Engineer's office in the latter part of December 1892. Joined workshops on 8th January 1893. Joined Division on 28th February 1893.	
" F. A. A. Cowley ...	Arrah ...	365	278		
Rai Sahib Beni Madhab Mittra	Do. ...	340	252		
Mr. E. A. Smith ...	Dehri Workshops ...	50	...		
Mr. E. A. Smith ...	Arrah ...	32	21		

## APPENDIX I—continued.

NAME:	Circle or Division.	NUMBER OF DAYS—		REMARKS.
		On duty.	On tour.	
<i>Assistant Engineers—concl'd.</i>				
Mr. G. L. Searight ...	Buxar ...	59	27	Returned from 18 months' special leave and joined Division on 1st February 1893.
„ J. Zorab ...	Do. ...	78	46	Transferred from the Roads and Buildings Branch, and joined Division from 16th November 1892. Was employed in charge of a section from 16th November 1892 to 17th January 1893.
„ J. S. L. Long ...	Gandak ...	102	13	On leave for 40 days. Transferred to the Orissa Circle.
Rai Sahib Kally Pada Sen ...	Aquapada ...	273	134	On 92 days' privilege leave.
Rai Sahib Annada Prosad Sircar.	Ditto ...	365	208	
Mr. O. S. Smith ...	Brahmini-Byturnai ...	341	182	Transferred from the Roads and Buildings Branch. Joined Division on 18th May 1892.
„ H. G. Gearing ...	Mahanadi ...	365	39	Most of the works are within 5 miles of head-quarters.
<i>Sub-Engineers.</i>				
Babu Jodunath Bose ...	Cossye ...	365	123	
Rai Sahib Gopal Chunder Daw	Northern Drainage and Embankment.	365	242	
Babu Rakhal Dass Roy ...	Circular and Eastern Canals.	273	74	Returned from employment under the District Board of Khulna, and joined the Division on the 2nd July 1892.
Mr. J. Bradshaw ...	Balasoro ...	360	207	On leave for 5 days.
„ I. J. Atkinson ...	Ditto ...	357	39	On leave for 8 days. Principal works lie at head-quarters being in charge of workshops.
Rai Sahib Satcowry Chatterjee	Eastern Sone ...	285	12	On privilege leave for 80 days. Principal works lie at head-quarters.
Mr. S. Street ...	Arrah ...	365	191	On privilege leave for 60 days.
„ J. C. Coxo ...	Puri ...	365	307	
Rai Sahib Prosunno Coomar Pal.	Aquapada-Jajpur ...	365	229	
<i>Supernisars.</i>				
Babu Jogendra Lall Chatterjee.	Northern Drainage and Embankment.	199	128	Returned from famine duty in Madras and joined the Division on the 20th September 1892.
„ Rakhal Dass Chatterjee	Nadia Rivers ...	365	113	
„ Lokenath Mitter ...	Ditto ...	365	216	
Mr. C. M. S. Rooke ...	Ditto ...	365	...	Employed as Toll-collector, Jangipur.
Babu Dukhina Runjan Mookerjee.	Circular and Eastern Canals.	190	85	Returned from famine duty in Madras and joined Division on the 23rd September 1892.
„ Ashutosh Mitter ...	Ditto ...	358	235	On leave for seven days.
Mr. W. W. H. Leshe ...	Gandak ...	365	139	
Babu Rudra Prosunno Singh	Do. ...	365	112	
„ Troylokho Nath Sircar	Do. ...	176	14	
„ Gopal Chander Mukherjee.	Do. ...	174	12	On privilege leave for 81 days.
„ Chundra Bhusan Dutt	Eastern Sone ...	76	2	On privilege leave for 90 days'
	Gandak ...	14	2	Principal works lie at head-quarters.
	Dehri Workshops	289	216	On privilege leave for 60 days and 2 days' joining time.
„ Kanti Chundra Banerjee.	Arrah ...	60	49	
	Eastern Sone ...	286	78	On leave for 19 days, including joining time on two occasions. Principal works lie at head-quarters.
Mr. H. E. Williamson ...	Dehri Workshops ...	365	42	Principal works lie at head-quarters.
Babu Gopal Chunder Ghose	Ditto ...	365	80	Ditto ditto.
„ Durga Charan Chakraborty.	Eastern Sone ...	363	225	Two days' joining time.
„ Kenaram Bose ...	Ditto ...	365	185	
„ Mohendro Nath Sircar	Buxar ...	365	235	
„ Pran Kissen Sen ...	Mahanadi ...	365	257	
Mr. C. A. Marchant ...	Ditto ...	201	11	Transferred from the Calcutta Canals and joined Division 28th October 1892.
<i>Overseers.</i>				
Babu Romanath Sircar ...	Cossye ...	365	254	
„ Kirtidas Myti ...	Do. ...	365	84	Worked principally at head-quarters.
Mr. P. Madge ...	Do. ...	14	...	Transferred to Madras from 16th April 1892.

## APPENDIX I—concluded.

NAME.	Circle or Division.	NUMBER OF DAYS—		REMARKS.
		On duty.	On tour.	
Overseers—concl.				
Babu Mohini Mohan Lahiri	Northern Drainage and Embankment.	144	73	On leave for 14 days. Appointed to the Department, and joined the Division on the 24th November 1892.
" Akhoy Krishna Bose ...	Nadia Rivers ...	184	122	Was on Madras famine duty from 1st April 1892 to 22nd September 1892. Was on transit from 23rd September to 1st October 1892.
" Rajendra Nath Mukherjee.	Ditto ..	365	129	
Mr. A. E. Hefferman ...	Balasoro ...	320	135	On privilege leave for 45 days.
Babu Suresh Chunder Ganguli.	Ditto ...	353	152	On leave for 12 days.
" Rajendro Lall Sircar ...	Arrah ...	359	324	
" Kherode Chunder Mukherjee.	Dehri Workshops ...	10	...	Transferred from the Roads and Buildings Branch and joined the Division on the 22nd March 1893.
" Surendra Nath Barat ..	Brahmini-Byturni ...	307	272	On leave for 31 days. Transferred from the Arrah Division, and joined 26th April 1892.
" Hurry Churn Mukerjee.	Mahanadi ...	296	240	On leave for 69 days.
" Banku Behari Mukerjee.	Puri ...	365	166	
" Bhoosun Chunder Banerjee.	Do. ...	296	...	Transferred from the Gandak Division, and joined on the 19th June 1892. Work at headquarters.
" Krisna Dhona Banerjee	Aquapada-Jajpur ...	359	165	
" Bankim Krishna Ghose	Brahmini-Byturni ...	365	335	
" Troyluckonath Muzumdar.	Ditto ...	296	288	Appointed to Department on 15th June 1892, and joined Division on 21st June 1892.
" Soshi Bhushan Muzumdar.	Mahanadi ...	348	271	
" Hira Lall Sen ..	Puri and Mahanadi	365	122	
" Upendranath Mukerjee...	Aquapada-Jajpur ...	132	26	Appointed to the Department on 16th November 1892, and joined Division 20th November 1892.
CALCUTTA CANALS.				
Supervisors.				
Mr. W. R. Cooksey ...	.....	365	...	Daily inspections of few hours only.
" P. O. Wight ...	Toll Inspector, Dhappa.	137	...	Joined Division on 15th November 1892.
Babu J. N. Gupta ...	Canal Inspector, Tolly's Nala.	365	...	Daily inspections of few hours only.
SONE CANALS.				
Revenue Division.				
Babu Soroda Prosad Chatterjee.	Deputy Collector ...	273	93	On privilege leave for 92 days.
" Siva Sanker Singh ...	Ditto ...	355	243	On leave for 10 days.
" Madho Lall ...	Sub-Deputy Collector	297	172	Joined Division on 8th June 1892.
" Probhat Chundra Mukerjee.	Ditto ...	64	34	
Orissa Canals.				
Rai Bahadur Jugdum Sahai...	Deputy Collector ...	341	146	
Babu Gopal Bullub Mitter ...	Sub-Deputy Collector	325	178	



# SOUTH-WESTERN CIRCLE.

## SUBDIVISIONS AND TOLL OFFICES.

SUPPLEMENT TO THE CALCUTTA GAZETTE, DECEMBER 1892.

DIVISIONS.										Balasore Division.					Nadia River Division.				
Cossey Division.					Circular and Eastern Canals Division.					Balasore Division.					Nadia River Division.				
Name of sub-division.		Date of inspection.		Name of Toll Office.		Date of inspection.		Name of sub-division.		Date of inspection.		Name of Toll Office.		Date of inspection.		Name of sub-division.		Date of inspection.	
Name of sub-division.		Date of inspection.		Name of Toll Office.		Date of inspection.		Name of sub-division.		Date of inspection.		Name of Toll Office.		Date of inspection.		Name of sub-division.		Date of inspection.	
No. 5 sub-division, Panikura. (c)		26th February 1893.		Panikura.		18th March 1893.		Panikura.		18th March 1893.		Panikura.		18th March 1893.		Panikura.		18th March 1893.	
No. 1. Midnapore.		In charge of Executive Engineer.		Chinabara.		12th June 1892.		No. 1. Calcutta.		In charge of Executive Engineer.		Kaliabara.		12th June 1892.		No. 1. Calcutta.		In charge of Executive Engineer.	
No. 2. Midnapore.		In charge of Executive Engineer.		Banbaria.		17th May 1892.		No. 2. Sorghopore.		5th February 1893.		Ditto.		5th February 1893.		No. 2. Sorghopore.		5th February 1893.	
No. 3. Midnapore.		Sub-divisional Engineer in charge.		Daman.		5th July 1892.		No. 3. Salberia.		Not inspected.		Ditto.		Not inspected.		No. 3. Salberia.		Not inspected.	
No. 4. Lachma.		16th Sept. 1892.		Panchak.		17th Oct. 1892.		No. 4. Edilpore.		6th March 1893.		Ditto.		6th March 1893.		No. 4. Edilpore.		6th March 1893.	
No. 5. Panchak.		25th March 1892.		Balichak.		19th Aug. 1892.		No. 5. Panchak.		Not inspected.		Ditto.		Not inspected.		No. 5. Panchak.		Not inspected.	
No. 6. Gola.		20th July 1892.		Krisna.		27th June 1892.		No. 6. Gola.		Not inspected.		Ditto.		Not inspected.		No. 6. Gola.		Not inspected.	

(a) Inspected by Examiner in August 1892.  
(b) Inspected by Examiner in Public Works Accounts, Bengal.  
(c) Inspected by Examiner in April 1893.

**SONE CIRCLE.**

[illegible]



STATISTICAL TABLES.

## IA.

## STATEMENT OF CANALS IN THE PROVINCE OF BENGAL DURING THE YEAR 1892-93.

PARTICULARS.	ORISSA CANALS.			Midnapore Canal.		Hidgellee Tidal Canal.		SONE CANALS.			Saran Canals.		Calcutta and Eastern Canals.		Orissa Coast Canal.	
	Mahanadi Series.		Brahmini-Byturni Series.	Total.	River Cossye.	Rivers Rupnarain and Russalpur.	River Sone.			River Gandak	River Hooghly and Sundarbond creeks.	Rivers Russalpur, Surnarekha, Panchpara, Burrabalong and Metai.				
	2	3	7				8	9	10				11	12		
Source of supply of water	River Mahanadi.	Rivers Brahmini and Byturni.														
Minimum discharge of river—cubic feet per second	Not taken	Not taken	.....	700			5,257, October 22nd, 1883									
	Ditto	Ditto	.....	200			1,868, February 16th, 1884									
	Ditto	Ditto	.....	100			447, May 27th, 1879									
Maximum discharge of canal—cubic feet per second	3,902	2,156	6,058	...			1,613	4,342	6,955		5,092, March 26th, 1884					
Average annual rainfall	55.66	55.17	55.41	56.93			41.73	39.91	40.48							
Gross area commanded	433,800	197,500	571,300	180,000			408,155	1,327,354	1,733,509*							
Culturable ditto	439,951	137,500	577,451	173,160			317,307	1,036,995	1,354,302							
Area irrigable by complete project	439,951	197,500	577,451	125,000			309,040	707,960	1,016,400							
Area irrigable at present	275,637	45,247	321,084	125,000			309,040	707,360	1,016,400							
Sanctioned estimate—			(a)	(b)					(d)							
Direct charges	3,13,96,220	9,19,625	3,13,96,220	83,73,091			2,78,88,697		2,78,88,697							
Indirect do.	9,19,625		9,19,625	1,84,215			13,99,607		13,99,607							
Interest during construction	1,21,54,723		1,21,54,723	54,17,730			29,67,227		29,67,227							
Total estimate	4,44,70,568		4,44,70,568	1,39,75,036			3,22,55,531		3,22,55,531							



IB.

CAPITAL ACCOUNT OF IRRIGATION WORKS IN BENGAL FOR AND TO END OF 1892-93.

IRRIGATION WORKS.	DIRECT CHARGES (NET EXPENDITURE).						Indirect charges, exclusive of interest.	Total capital, excluding interest.	Simple interest.
	Works.	Establishment.	Tools and plant.	Suspense accounts.	Loss by exchange.	Total.			
1	2	3	4	5	6	7	8	9	10
<i>Major Irrigation Works.</i>									
Orissa project ...	Rs. 1,77,31,111	Rs. 44,51,243	Rs. 19,92,451	Rs. 1,63,791	Rs. 2,68,070	Rs. 2,46,06,666	Rs. 5,54,230	Rs. 2,51,60,896	Rs. 1,66,70,158
{ To end of previous year ...	3,16,497	61,011	3,184	-17,477	.....	3,63,215	8,604	3,71,819	9,91,531
Midnapore canal ...	53,40,639	19,17,880	9,05,392	.....	94,800	82,58,711	1,84,133	84,42,844	64,09,199
{ To end of previous year ...	15,58,406	5,33,372	1,18,137	.....	22,790	.....	.....	.....	3,30,348
Tidal canal ...	33,820	2,547	1,952	.....	.....	22,32,705	56,508	22,89,213	15,65,055
{ To end of previous year ...	1,83,82,302	51,34,328	19,93,575	1,69,649	52,240	38,319	357	38,676	90,075
Sone canal ...	79,153	18,425	5,702	-47,088	.....	2,57,32,004	9,10,551	2,66,42,645	1,65,88,027
{ To end of previous year ...	4,30,12,458	1,20,36,823	50,09,555	3,33,440	4,37,900	56,252	2,580	58,832	10,30,409
{ During 1892-93 ...	4,29,470	81,983	10,898	-64,565	.....	6,08,30,176	17,05,422	6,25,35,598	4,12,32,439
Total ...	.....	.....	.....	.....	.....	4,57,786	11,541	4,69,327	24,42,363
<i>Minor Works and Navigation.</i>									
Tirhut project ...	90,685	4,23,943	6,797	.....	.....	5,31,425	74,650	6,06,075	.....
{ To end of previous year ...	47,877	94,864	4,800	.....	.....	1,47,541	16,239	1,63,780	.....
Damoodar " ...	-1,200	.....	.....	.....	.....	-1,200	.....	-1,200	.....
{ To end of previous year ...	4,79,418	1,64,170	25,952	.....	.....	6,69,570	27,183	6,96,753	.....
Saran " ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
{ To end of previous year ...	32,69,581	7,30,117	2,02,469	36,832	.....	42,38,999	1,02,953	43,41,952	.....
Orissa Coast canal ...	694	159	580	1,027	.....	2,460	22	2,482	.....
{ To end of previous year ...	44,74,200	3,51,663	3,51,663	11,692	.....	52,22,543	61,027	52,83,570	.....
Calcutta and Eastern canals. ...	42,089	9,681	16,800	4,353	.....	72,923	1,356	74,279	.....
{ To end of previous year ...	83,61,791	18,08,082	5,91,681	48,524	.....	1,08,10,078	2,82,052	1,10,92,130	.....
{ During 1892-93 ...	41,583	9,840	17,380	5,380	.....	74,183	1,378	75,561	.....
Total ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
GRAND TOTAL ...	5,13,74,249	1,38,44,905	56,01,236	3,81,964	4,37,900	7,16,40,254	19,87,474	7,36,27,728	4,12,32,439
{ To end of previous year ...	4,71,053	91,823	28,278	-59,185	.....	5,31,969	12,919	5,44,888	24,42,363

## NOTE.

*Receipts on capital account deducted from the following heads.*

	Works.	Establishment.	Tools.	Total.		Works.	Establishment.	Tools.	Total.		Works.	Establishment.	Tools.	Total.
	Rs.	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
Orissa project ... { To end of previous year ...	44,520	13,300	28,250	86,100		44,520	13,300	28,250	86,100		42,749	...	2,300	45,049
... { During 1892-93 ...	69	...	...	69		69	...	...	69		1,200	...	...	1,200
Midnapore canal ... { To end of previous year ...	12,668	7,300	11,590	31,558		12,668	7,300	11,590	31,558		498	...	...	498
... { During 1892-93 ...	...	...	...	...		...	...	...	...		...	...	...	...
Tidal canal ... { To end of previous year ...	...	...	...	...		...	...	...	...		3,028	260	5	3,293
... { During 1892-93 ...	...	...	...	...		...	...	...	...		...	...	...	...
Sone canal ... { To end of previous year ...	2,05,935	32,711	1,33,640	3,72,286		2,05,935	32,711	1,33,640	3,72,286		54,467	...	...	54,467
... { During 1892-93 ...	2,159	...	...	2,159		2,159	...	...	2,159		...	...	...	...
Tirhut project ... { To end of previous year ...	45	74	39	158		45	74	39	158		...	...	...	...
... { During 1892-93 ...	...	...	...	...		...	...	...	...		...	...	...	...

I

## STATEMENT SHOWING THE FINANCIAL RESULTS OF IRRIGATION

*Realisations under main heads of*

IRRIGATION WORKS.	REVENUE (ACTUAL RECEIPTS).										REVENUE	
	IRRIGATION.			Navigation.	Plantations and lands.	Water-powers.	Miscellaneous.	Total.	Refund of revenue.	Gross receipts less refunds.	Establish	
	Water-rates directly paid.	Share of land revenue.	Total.								Direction.	Execution.
1	2	3	4	5	6	7	8	9	10	11	12	13
MAJOR WORKS.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Orissa project ... ..	3,52,309	...	3,52,309	1,15,757	1,950	...	24,572	4,97,658	263	4,97,375	5,987	54,208
Midnapore canal ... ..	1,40,057	..	1,40,057	1,14,141	34	..	16,945	2,80,177	176	2,80,001	2,279	15,082
Tidal canal ... ..	...	...	...	52,180	31	...	1,251	53,462	73	53,390	411	2,370
Sone project ... ..	9,68,070	..	9,68,070	59,089	852	1,138	27,224	10,56,333	3,752	10,52,581	7,178	97,227
Total Major Irrigation Works.	14,60,406	...	14,60,406	3,44,167	2,877	1,138	69,992	18,87,670	4,323	18,83,347	15,865	1,68,867
MINOR WORKS AND NAVIGATION.												
Works for which capital and revenue accounts are kept.												
Saran project ... ..	1,492	...	1,492	...	19	...	16	1,520	..	1,520	238	1,648
Orissa Coast canal ... ..	...	...	..	50,532	..	...	9,140	64,981	47	64,934	1,137	7,496
Calcutta and Eastern canals.	...	...	...	4,61,716	..	...	15,528	4,80,214	130	4,80,114	3,418	21,459
Total ... ..	1,492	...	1,492	5,20,555	19	..	21,673	5,46,751	177	5,46,574	4,793	30,603
Works for which only revenue accounts are kept.												
Nadia rivers ... ..	...	...	..	1,65,389	...	...	159	1,65,538	18	1,65,520	1,719	12,931
Works for which neither capital nor revenue accounts are kept.												
Eden canal ... ..	31,310	..	31,310	...	...	...	804	31,113	70	31,043	...	...
Total Minor Works and Navigation.	31,310	...	31,310	6,85,128	19	...	25,633	7,44,162	265	7,43,137	6,512	43,534
GRAND TOTAL ... ..	15,01,218	...	15,01,218	10,30,095	2,896	1,138	95,645	26,31,672	4,588	26,26,484	22,367	2,12,401

(a) Irrigation Revenue officers specially  
 (b) Temporary establishment, including establishment for measuring lands and preparing demand  
 NOTE.—The charges for direction and executive establishment have equally

## C.

## WORKS IN BENGAL FOR THE YEAR ENDING 31st MARCH 1893.

## Revenue and working expenses.

WORKING EXPENSES.																
MANAGEMENT.			MAINTENANCE OF WORKS.											Grand total working expenses.	Net revenue.	
mont.		Total.	Establishment.				Works.	Repairs.	Sundries.	Tools and plant.	Fluxations.	Total.	Indirect charges.			
Navigation.	Civil officers (a).		Direction.	Execution.	Medical.	Total.										
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
16,917	78,906	1,56,168	5,987	54,260	...	60,106	9,123	2,30,133	...	19,437	222	3,19,116	30,283	5,06,507	—8,182	
7,658	23,011	48,010	2,279	15,061	.	17,340	3,736	87,022	...	29,855	408	1,38,391	9,140	1,06,650	84,451	
4,332	...	7,113	411	2,370	...	2,781	..	16,033	...	5,363	411	24,591	1,385	33,089	20,301	
14,430	1,59,300	2,78,135	7,178	97,227	..	1,04,405	6,541	2,74,509		28,031	6,070	4,10,556	53,556	7,51,247	3,01,334	
43,337	2,61,307	4,89,366	15,855	1,68,867	...	1,84,722	19,400	6,07,765	.	89,710	7,111	9,01,654	94,373	14,85,393	8,07,954	
...	...	1,886	238	1,648		1,886	...	9,472	...	213	45	11,616	528	14,030	—12,604	
6,856	...	15,489	1,137	7,496		8,633		45,490	..	6,663		60,786	3,577	79,652	—14,718	
30,935	...	61,812	3,418	21,469		24,877	—24,498	1,63,907	..	13,207	1,322	1,74,809	12,556	2,62,177	2,27,937	
46,791	..	82,187	4,763	39,693	..	34,096	(—)28,198	2,18,863		29,083	1,367	2,47,211	10,461	3,45,840	2,00,715	
22,283		36,932	1,719	12,939		14,649		69,763	1,066	1,614		86,122	7,221	1,36,275	35,245	
...	(b)	...	...	10,078	...	10,078	(—)48	26,478	...	652	...	37,160		37,160	(—)6,117	
69,073	...	1,19,119	6,512	54,611		60,123	—28,516	3,14,164	1,066	22,359	1,367	3,70,493	23,082	5,13,294	2,29,843	
1,12,410	2,61,307	6,08,485	23,307	2,22,478		2,45,785	—9,146	9,21,809	1,061	1,65,095	8,478	12,72,117	1,18,055	19,98,687	6,27,797	

employed in collection of revenue.  
 statements was entertained during the year at a total cost of Rs. 1,536 against Rs. 906 in 1891-92.  
 (approximately) apportioned under the heads "Revenue management" and "Maintenance."

## IIC.

STATEMENT SHOWING THE FINANCIAL RESULTS OF IRRIGATION WORKS IN BENGAL  
FOR 1892-93, BASED ON ACTUAL RECEIPTS.*Principal results of operations for the year ended 31st March 1893.*

IRRIGATION WORKS.	Direct and indirect outlay to end of 1892-93.	Gross receipts, direct and indirect, from all sources, (less refunds).	Working expenses, direct and indirect.	Net revenue (excluding charges for interest).	Percentage of net revenue on capital outlay to end of the year.	Interest at 4 per cent. on direct capital outlay at commencement of year and at 2 per cent. on outlay during the year.	SURPLUS REVENUE AFTER PAYING INTEREST ON DIRECT CAPITAL OUTLAY.		EXCESS CHARGES INCLUDING INTEREST ON DIRECT CAPITAL OUTLAY.	
							Amount.	Percentage on total sum at charge.	Amount.	Percentage on total sum at charge.
1	2	3	4	5	6	7	8	9	10	11
<b>MAJOR IRRIGATION WORKS.</b>	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
<i>In operation.</i>										
Tidal canal ...	23,27,889	53,390	33,049	20,301	87	90,075	...	...	69,774	3
<i>In progress.</i>										
Orissa project ...	2,55,32,715	4,97,375	5,05,507	—8,132	—03	9,91,531	...	...	9,99,663	3.91
Midnapore canal ...	84,42,844	2,80,001	1,95,550	84,451	1.00	3,30,318	...	...	2,45,897	2.91
Sone project ...	2,67,01,477	10,52,531	7,51,247	3,01,334	1.13	10,30,409	...	...	7,29,075	2.71
Total ...	6,30,04,925	18,83,817	14,85,393	3,97,954	63	24,42,363	...	...	20,44,409	3.24
<b>MINOR WORKS AND NAVIGATION.</b>										
<i>In operation.</i>										
Saran project ...	6,96,753	1,526	14,030	—12,504	—1.79	...	...	...	...	...
Calcutta and Eastern canals	53,57,849	4,80,114	2,52,177	2,27,937	4.25	...	...	...	...	...
Nadia rivers ...	...	1,65,520	1,30,275	35,215	...	...	...	...	...	...
<i>In progress.</i>										
Orissa Coast canal ...	48,44,434	64,934	79,652	—14,718	—31	...	...	...	...	...
<i>Abandoned or held in abeyance.</i>										
Tirhut project ...	6,06,075	...	...	...	...	...	...	...	...	...
Damadoor project ...	1,62,580	...	...	...	...	...	...	...	...	...
Total ...	1,11,67,691	7,12,094	4,76,134	2,35,960	2.11	...	...	...	...	...



## IIIC.

## DEMANDS AND REALIZATIONS DURING THE YEAR 1892-93.

IRRIGATION WORKS.		Balance of demand unrealized at com- mencement of year.	Demands of the year.	Total.	Deduct remissions not including cash refunds.	Net total.	Deduct amount un- realized at close of the year.	Actual receipts of the year.
1	2	3	4	5	6	7	8	
<i>Major Irrigation Works.</i>		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Orissa project ...	2,33,704	4,06,312	6,40,016	52,541	5,87,475	89,817	4,97,658	
Midnapore canal ...	58,972	2,71,110	3,30,082	1,338	3,28,744	48,567	2,80,177	
Fidal canal ...	...	53,462	53,462	...	53,462	...	53,462	
Bono project ...	1,11,444	10,17,633	11,59,077	14,914	11,44,163	87,790	10,56,373	
Total ...	4,04,120	17,78,517	21,82,637	68,793	21,13,844	2,26,174	18,87,670	
<i>Minor Works and Navigation.</i>								
Saran project ...	3,163	11,034	14,197	...	14,197	12,671	1,526	
Orissa Coast canal ...	...	64,981	64,981	...	64,981	...	64,981	
Calcutta and Eastern canals ...	...	4,80,244	4,80,244	...	4,80,244	...	4,80,244	
Nadia rivers ...	...	1,65,538	1,65,538	...	1,65,538	...	1,65,538	
Total ...	3,163	7,21,797	7,24,960	...	7,24,960	12,671	7,12,289	
GRAND TOTAL ...	4,07,283	25,00,314	29,07,597	68,793	28,38,804	2,38,845	25,99,959	

NOTE.—Refunds of revenue have not been deducted from actual receipts of the year.

## IV

## STATEMENT SHOWING THE FINANCIAL RESULTS OF IRRIGATION WORKS IN

*Principal results of operations for*

IRRIGATION WORKS.	Capital out- lay (direct and indirect) to end of the year.	REVENUE ASSESSED				
		DIRECT ASSESSED				
		Occupier's rate (water- rates).	Owner's rate.	Plantations.	Water-power.	Navigation.
1	2	3	4	5	6	7
<b>MAJOR IRRIGATION WORKS.</b>	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Orissa Project ... ..	2,55,32,715	2,40,200	.....	1,960	.....	1,18,757
Midnapore Canal ... ..	84,42,844	1,40,000	.....	34	.....	1,14,141
Hijili Tidal Canal ... ..	23,27,889	.. ..	.. ..	31	.....	52,180
Sone Project ... ..	2,67,01,477	8,15,158	.....	852	1,138	59,089
Total Major Irrigation Works ..	6,30,04,925	11,95,358	.....	2,877	1,138	3,44,167
<b>MINOR WORKS AND NAVI- GATION.</b>						
<i>Works for which Capital and Re- venue accounts are kept.</i>						
Saran Project ... ..	6,96,753	11,000	.....	19	.....	.....
Orissa Coast Canal ... ..	43,44,434	.....	.....	.....	.....	55,832
Calcutta and Eastern Canals ...	53,57,849	.....	.....	.....	.....	4,64,716
Total ... ..	1,03,99,036	11,000	.....	19	.....	5,20,548
<i>Works for which neither Capital nor Revenue accounts are kept.</i>						
Eden Canal ... ..	.....	65,652	.....	.....	.....	.....
<i>Works for which only Revenue accounts are kept.</i>						
Nadia Rivers ... ..	.....	.....	.. ..	.....	.....	1,65,380
Total Minor Works and Naviga- tion.	1,03,99,036	76,652	.....	19	.. ..	6,85,928

*N.B.*—The assessed revenue means the revenue assessed on the irrigation of the year independently of whether the demand statements were

## C.

## BENGAL FOR THE YEAR ENDED 1892-93, BASED ON ASSESSMENTS OF THE YEAR.

the year ended 31st March 1893.

## DURING THE YEAR.

REVENUE.		Refunds of re- venue.	Gross assessed re- venue,—less re- funds.	Indirect revenue —Land revenue due to operations of canals.	Grand total.	Working expenses, di- rect and indirect.	Net assessed revenue of the year.	Percentage on capital outlay to end of the year.
Miscellane- ous.	Total.							
8	9	10	11	12	13	14	15	16
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
24,572	3,85,489	283	3,85,206	.....	3,85,206	5,05,507	(—)1,20,301	·47 deficit.
16,945	2,71,120	176	2,70,944	.....	2,70,944	1,95,550	(+)75,394	·89 profit.
1,251	53,462	72	53,390	... ..	53,390	33,089	(+)20,301	·87 profit.
27,224	9,03,461	3,792	8,99,669	.....	8,99,669	7,51,247	(+)1,48,422	·55 profit.
69,992	16,13,532	4,323	16,09,209	.....	16,09,209	14,85,393	(+)1,23,816	·19 profit.
15	11,034	... ..	11,034	.....	11,034	14,030	(—)2,996	·43 deficit.
9,149	64,981	47	64,934	.....	64,934	79,652	(—)14,718	·33 deficit.
15,528	4,80,244	130	4,80,114	.....	4,80,114	2,52,177	(+)2,27,937	4·25 profit.
24,692	5,56,259	177	5,56,082	...	5,56,082	3,45,859	(+)2,10,223	2·02 profit.
803	66,455	70	66,385	.....	66,385	37,160	29,225	.....
158	1,65,538	18	1,65,520	.....	1,65,520	1,30,275	35,245	.....
25,653	7,88,252	265	7,87,987	.....	7,87,987	5,13,294	2,74,693	.....

completed within the financial year or not. The actual amount of the demand statements issued during the year is given in column 3 of table IIC.

## ID.

## STATEMENT OF TRAFFIC ON CANALS IN BENGAL DURING THE YEAR 1892-93.

PARTICULARS.	Orissa Canals.	Midnapore Canal.	Higili Tidal Canal.	Sone Canals.	Calcutta and Eastern Canals.	Orissa Coast Canal.	Total.	Nadia Rivers.	Grand Total
1	2	3	4	5	6	7	8	9	10
Length of canal open for navigation ... Miles	204½	72	29	218½	(a)47	(b)102	673½	477	1,150½
<b>RECEIPTS.</b>									
Age—Private boats ... Rs.	92,259	1,11,489	61,958	33,163	4,56,602	51,824	8,00,234	1,64,562	9,64,786
Government boats ... "	5,417	...	...	9,095	...	...	14,512	...	14,512
Rafts ... "	2,928	2,652	292	7,798	344	1,008	14,862	818	15,680
Working operations or transport services. } Government boats.	18,891	...	...	9,093	...	...	27,984	...	27,984
Revenues and sundries ... "	...	3,392	...	...	7,770	...	11,162	...	11,162
Total—receipts ... "	1,19,394	1,17,533	62,180	59,089	4,64,716	55,832	8,68,744	1,65,380	10,34,124
Maintenance charges, including special navigation establishment ... "	20,758	13,888	23,161	42,653	2,52,307	79,699	4,42,466	1,30,293	5,72,759
Net revenue of year ... "	98,636	1,03,645	19,019	16,436	2,12,409	(- )23,867	4,26,278	35,087	4,61,365
Actual number of boats plying cargo ... No.	10,458	(a)11,963	(a)10,130	3,882	(a)86,333	(a)6,631	131,397	(a)24,994	156,891
ditto ditto passenger ... "	2,867	14,691	1,581	443	10,957	2,122	32,661	20,291	52,892
ditto ditto empty boats ... "	8,278	...	...	2,385	...	...	10,663	...	10,663
Total ...	21,603	29,654	11,711	6,710	97,290	7,753	174,721	45,225	219,946
Actual registered tonnage of boats by canal measurement, cargo ... Tons.	161,106	253,302	131,276	75,147	1,752,256	60,451	2,433,510	643,702	3,077,242
ditto ditto passenger ... "	78,477	96,138	14,597	11,523	21,297	23,380	215,112	28,662	274,074
ditto ditto empty boats ... "	57,629½	60,563	22,366	11,171	487,201	16,976	655,803½	111,125	766,928½
Total ...	297,103½	410,003	168,239	97,841	2,260,756	1,00,807	3,334,755½	783,489	4,118,244½
Ton-mileage—Up ... "	5,162,572	2,861,778	1,230,663	2,551,279	3,260,958	1,499,494	16,570,044	Nil	...
Down ... "	5,060,576	4,351,080	1,833,139	3,019,920	17,020,047	1,720,254	33,095,016		
Total ...	10,223,448	7,215,868	3,063,802	5,571,199	20,281,005	3,219,748	49,575,060		
Estimated value of cargoes—Up ... Rs.	34,60,365	60,25,233	23,91,545	18,77,807	91,98,672	11,82,195	2,41,35,817	1,58,75,636	4,00,11,453
Down ... "	49,18,863	64,55,193	28,44,274	36,30,553	5,75,62,718	11,72,485	7,65,84,086	1,97,17,258	9,63,01,344
Total ... "	83,79,228	1,24,80,426	52,35,819	55,08,360	6,67,61,390	23,54,680	10,07,19,703	3,55,92,894	13,63,12,797
Number of passengers—Total No.	116,957½	206,804	42,488	48,943½	68,738	60,435	543,366	69,302	612,868
feet × feet × feet—Up ... c. ft.	121,116	5,173	10,656	1,111	6,346	5,398	140,800	3,860	153,660
" " " Down ... "	588,064	2,12,938	14,637	2,470,287	40,015	37,611	3,364,152	134,681	3,408,833
Total ... "	709,780	218,111	25,293	2,471,398	46,361	43,009	3,513,952	138,541	3,652,493
Estimated value of rafts—Total ... Rs.	90,500	1,23,778	20,731	2,24,005	74,824	24,225	5,58,063	1,09,195	6,67,198
Charge on boats per ton per mile ... Pies.	1-83	2-9	3-2	1-45	4-3	3-2	...	Nil.	...
Charge on rafts per 100 cubic feet ... Rs.	0-04	1-21	1-15	5-01	7-4	2-34	...	59	...

(a). The length is that of the Calcutta and new canals and Tolly's Nala, with 20 miles of Kaorapukur khal. The Eastern Canals are 316 miles in length, of which the shortest route is 110 miles, and the outer boat route 127 miles: the steamer route is 350 miles. Total length is 713 miles.  
(b). Includes ½ miles of river crossings.



**IID—concluded.**

DESCRIPTION AND QUANTITIES OF GOODS, &c., CARRIED ON CANALS IN BENGAL DURING THE YEAR 1892-93.

[illegible]

## IE.

## STATEMENT OF AREAS IRRIGATED BY IRRIGATION WORKS IN BENGAL DURING THE YEAR 1892-93.

NAME OF CANAL.	AREAS IRRIGATED IN ACRES.							AVERAGE DISCHARGE, CUBIC FEET PER SECOND.				AREAS IRRIGATED PER CUBIC FOOT PER SECOND.			
	Kharif.	Rabi.	Total.	Flow.	Lift.	DOUBLE-CROPPED.		AT HEAD.		UTILISED.		DISCHARGE AT HEAD.		UTILISED.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Kendrapara Canal and its branches	65,721	2,001	67,722	66,208	1,520	...	...	1,012.35	345.25	856.68	206.00	64.93	5.80	68.70	0.68
Talbandah ditto	30,327	264	30,591	37,915	676	...	...	307.95	20.25	268.25	10.75	11.97	13.03	131.92	13.76
High Level Canal, Range I	20,950	275	21,225	20,920	305	...	...	316.35	159.95	209.15	...	60.51	1.82	78.18	...
Total Mahanadi Series	123,001	2,533	125,534	123,013	2,501	...	...	1,635.75	515.45	1,404.08	227.05	73.84	4.02	82.53	11.37
High Level Canal, Range II	2,385	41	2,426	2,307	22	...	...	19.08	0.59	14.48	0.50	119.70	74.68	157.60	24.68
" Ditto ditto III	52,191	7	52,201	52,016	185	...	...	325.29	9.39	318.60	9.39	98.95	0.74	101.05	0.74
Jajpur Canal	878	...	878	878	...	...	...	...	...	...	...	...	...	...	...
Total Brahmani-Bayturi Series	35,357	51	35,408	33,291	2.7	...	...	344.43	9.98	353.08	9.98	102.65	5.11	106.15	5.11
Total Orissa Canals	178,358	2,594	180,952	158,214	2,708	...	...	2,010.18	526.43	1,827.16	233.63	78.78	4.93	86.67	11.10
Under Midnapore weir	82,662	...	82,662	82,662	...	...	...	531	111	597	...	99.00	...	138.42	...
Under Panchkoora weir	7,690	...	7,690	7,690	52	...	...	1.63	3	141	...	50.26	...	54.53	...
...	885	...	885	877	8	...	...	...	...	...	...	...	...	...	...
Total Midnapore Canal	91,217	...	91,217	91,357	60	...	...	...	...	...	...	...	...	...	...
Eastern Main Series	73,671	6,387	79,958	77,177	2,184	...	...	1,210	430	1,056	250	56.13	26.46	61.63	45
Western ditto	308,194	95,006	331,100	317,004	14,106	...	...	2,064	2,473	2,473	1,350	71.52	55.63	83.62	86.33
Total Sonu Canals	311,168	95,583	410,761	391,571	16,130	...	...	1,098	2,406	3,529	1,540	67.06	50.60	77.85	79.87
Saran Canals	1,338	2,222	3,560	...	...	...	...	251	323	Not recorded.	...	6.33	6.87	...	...

## IIE.

## STATEMENT SHOWING INCIDENCE OF WORKING EXPENSES AND ASSESSED WATER-RATES ON CANALS IN BENGAL DURING 1892-93.

NAME OF CANAL.	A. Area discharge of the year at canal head in cubic feet per second.	WATER-RATES ASSESSED IN 1892-93.					Gross assessed revenue from all sources.	Working expenses, direct and indirect.	Area irrigated during the year.	WORKING EXPENSES.			OCCUPIER'S RATES (WATER-RATES).		TOTAL WATER-RATES, DIRECT AND INDIRECT.	
		Occupier's rates (water-rates).	Owner's.	Total direct.	Indirect.	Total of direct and indirect.				Per cent. on gross revenue.	Per acre irrigated.	Per cubic foot per second of discharge.	Per acre irrigated.	Per cubic foot per second of discharge at canal head.	Per acre irrigated.	Per cubic foot per second of discharge.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
MAJOR IRRIGATION WORKS.																
Orissa project	1,001.35	2,40,200	.	2,40,200	.	2,40,200	3,85,906	5,05,507	160,952	131.07	3.14	505.28	...	...	1.49	239.96
Midnapore canal	431.23	1,40,000	.	1,40,000	.	1,40,000	2,70,944	1,55,550	91,217	14.9	24.2	...	...	...	...	...
Hajiti Total canal	...	...	.	...	.	...	53,390	35,089	...	...	...	...	...	...	...	...
Sone project	2,615	8,15,158	.	8,15,158	.	8,15,158	8,90,600	7,51,217	410,761	83.50	1.82	298.70	1.98	324.11	1.98	324.11
Total	...	11,95,358	...	11,95,358	...	11,95,358	16,09,209	14,85,393	662,139	92.30	2.1	...	...	...	...	...
MINOR WORKS AND NAVIGATION.																
Saran project	309	11,000	...	11,000	...	11,000	11,034	14,650	3,660	127.15	3.94	45.40	*	*	*	*
Orissa Const canal	...	...	...	...	...	...	64,034	79,452	...	122.60	...	...	...	...	...	...
Calcutta and Eastern canals	...	...	...	...	...	...	4,80,114	2,52,177	...	52.62	...	...	...	...	...	...
Nadia rivers	...	...	...	...	...	...	1,65,520	1,30,276	...	78.70	...	...	...	...	...	...
Total	...	11,000	...	11,000	...	11,000	7,21,092	4,76,134	...	65.98	...	...	...	...	...	...

\* Cannot be filled in, as the payment is partly for water supplied for the manufacture of indigo.

Note A.—In this table the water taken shown as assessed during the year are the amounts for which occupiers have rendered themselves liable in return for canal water supplied during the year, and include some demands which were not legally recoverable, and others of which the assessment papers were not completed till after the close of the year.

Note B.—Refunds of revenue have been deducted from "Gross assessed revenue from all sources."

## III.

## STATEMENT OF QUANTITY AND VALUE OF CROPS IRRIGATED IN BENGAL DURING THE YEAR 1892-93.

DESCRIPTION.	ORISSA CANALS.		MIDNAPORE CANAL.		SONE CANALS.		SARAN CANALS.		TOTAL.	
	Area irrigated.	Estimated value.	Area irrigated.	Estimated value.	Area irrigated.	Estimated value.	Area irrigated.	Estimated value.	Area irrigated.	Estimated value.
1	2	3	4	5	6	7	8	9	10	11
Gardens and orchards	...	Rs. 15,600	...	...	...	Rs. 1,344	...	...	Acres. 109	Rs. 16,944
Sugarcane	...	1,33,200	...	...	...	6,57,458	...	...	39,007	7,90,658
Wheat	...	...	...	...	...	17,15,128	...	...	36,756	17,15,158
Barley	...	...	...	...	...	5,74,382	...	...	17,445	574,382
Rice	...	...	...	...	...	1,13,98,787	1,239	53,277	509,610	1,77,05,214
Maize	158,939	99,73,225	91,197	22,79,925	258,245	19,752	...	...	1,693	19,752
Cereals	...	...	...	...	...	...	...	...	...	...
Juar	...	...	...	...	...	...	...	...	...	...
Cheena	...	24	...	...	...	1,296	...	...	174	1,314
Miscellaneous	...	...	...	...	...	91,551	1,951	39,020	4,444	1,30,671
Zeera	...	...	...	...	...	2,67,400	...	...	5,185	2,07,400
Gram	...	...	...	...	...	2,71,675	...	...	8,512	2,71,675
Peas	...	...	...	...	...	71,467	...	...	5,360	71,467
Miscellaneous	...	10,544	...	...	10,857	5,15,955	...	...	11,516	5,26,499
Fodder crops	...	...	...	...	64	1,536	...	...	64	1,536
Fibres	...	69,600	...	...	...	...	...	...	696	69,600
Dyes	...	8,920	...	...	...	1,040	185	7,400	434	17,360
Drugs	...	...	...	...	1,475	52,905	55	9,075	1,530	61,980
Oilseeds	...	...	...	...	...	...	...	...	...	...
Miscellaneous	...	...	...	...	...	...	...	...	...	...
Mustard	...	...	...	...	...	3,579	...	...	133	3,579
Linseed, &c.	...	1,110	...	...	...	3,509	...	...	225	3,500
Total	160,952	42,12,253	91,197	22,79,925	401,034	1,58,84,319	3,430	1,08,772	656,613	2,24,85,269
Hot weather irrigation	...	...	...	...	9,727	6,954	130	1,950	9,857	8,904
Land surreptitiously irrigated	...	...	20	500	...	...	...	...	20	500
GRAND TOTAL	160,952	42,12,253	91,217	22,80,425	410,761	1,58,91,273	3,560	1,10,722	666,490	2,24,94,673





## No. IF.

STATEMENT SHOWING THE WATER-RATES PER ACRE IN FORCE ON  
CANALS IN BENGAL DURING 1892-93.

CANALS.	Description of leases and crops.	OCCUPIER'S RATES PER ACRE.	
		Flow irrigation.	Lift irrigation.
1	2	3	4

## ORISSA CIRCLE.

		Rs. A. P.	Rs. A. P.
ORISSA CANALS ...	I.—For the whole irrigable or rice cultivated area of any village, if application is made for a lease of five years ...	1 8 0	1 0 0
	<i>For the rice crop.</i>		
	II.— For any fractional area of a village or for other term ...	3 0 0	2 0 0
	<i>For cold-weather crops.</i>		
	III.— Dalwa rice ...	1 8 0	1 0 0
	IV.—For cotton, tobacco, huldi, ginger, wheat, vegetable, indigo and all garden produce grown in villages the rice-lands of which are leased under rate I ...	1 0 0	0 10 0
	V.—For the above produce when grown in villages the rice-lands of which are not leased under rate I ...	2 0 0	1 8 0
	VI.—For linseed, oil-seeds, dāl and all pulses grown in villages the rice-lands of which are leased under rate I ...	0 8 0	0 5 0
	VII.—For the above produce when grown in villages the rice-lands of which are not leased under rate I ..	1 0 0	0 10 0
	<i>For perennial crops.</i>		
	VIII.—For sugarcane ...	6 0 0	4 0 0
	IX.—The charge for filling tanks is Rs. 1 per 10,000 cubic feet of water used ...	...	.....

## SOUTH-WESTERN CIRCLE.

		Rs. A. P.	Rs. A. P.
MIDNAPORE CANAL	<i>For the rice crop.</i>		
	I.—Under five-year leases ...	1 8 0	1 0 0
	II.—Under annual leases ...	2 8 0	1 10 0
	<i>For winter crops.</i>		
	III.—In exceptional cases when water is available ...	1 8 0	
	IV.—The charge for the unauthorised use of canal water is Rs. 5 per acre per annum or such less sum as is fixed by the Collector ...	.....	.....

CANALS.	Description of leases and crops.	OCCUPIER'S RATES PER ACRE.	
		Flow irrigation.	Lift irrigation.
1	2	3	4

SONE CIRCLE.

The following schedule is in force with reference to long leases taken in, and previous to the year 1891 92:—

*Five-years Leases.*

CLASS.	Nature of crop.	IRRIGATION PER—		
		Cottah.	Bigha.	Acre
		Rs. A. P.	Rs. A. P.	Rs. A. P.
	For all crops ...	0 1 0	1 4 0	2 0 0

The following schedules are in force with reference to all leases taken during 1892-93:—

SCHEDULE No. I.

*Leases for a term of years.*

FOR WATER SUPPLIED BETWEEN THE 25TH OF JUNE OF ONE YEAR AND THE 25TH MARCH OF THE NEXT.	FLOW OR LIFT.		
	Rate per acre.	Rate per bigha.	Rate per tenth of a bigha.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
For leases for seven years—all crops ...	2 0 0	1 4 0	0 2 0
" for three years "	2 8 0	1 9 0	0 2 6

SCHEDULE No. II.

*Season Leases (Kharif).*

NAME OF CROP.	Date of supply.	FLOW OR LIFT.		
		Rate per acre.	Rate per bigha.	Rate per tenth of a bigha.
		Rs. A. P.	Rs. A. P.	Rs. A. P.
Rice and sugarcane for kharif season only	25th June to 25th October.	3 0 0	0 14 0	0 3 0
Bhadoi, serba rice or any other crops ...	25th June to 15th October.	2 8 0	1 9 0	0 2 6

## SCHEDULE No. III.

*Season Leases (Rabi).*

TIME OF SUPPLY.	Locality.	FLOW.			LIFT.		
		Per acre.	Per bigah.	Per tenth of a bigah.	Per acre.	Per bigah.	Per tenth of a bigah.
15th October to 25th March.	Water supplied for all crops including sugarcane from distributaries open for kharif irrigation.	Rs. A. P. 2 0 0	Rs. A. P. 1 4 0	Rs. A. P. 0 2 0	Rs. A. P. 1 8 0	Rs. A. P. 0 15 0	Rs. A. P. 0 1 6
25th October to 25th March.	Water supplied for all crops including sugarcane from distributaries or parts of distributaries from which rabi irrigation only is allowed.	1 8 0	0 15 0	0 1 6	1 0 0	0 10 0	0 1 0

## SCHEDULE No. IV.

*Season Leases (Hot weather).*

	FLOW OR LIFT.		
	Per acre.	Per bigah.	Per tenth of a bigah.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
For water supplied between the 25th March and the 25th June, or at the option of the applicant, between the 25th of February and the 25th of May, for all crops.	4 0 0	2 8 0	0 4 0

In the case of charges under schedules I to IV, any smaller area than one-tenth of a bigah will be charged as one tenth. The bigah contains 27,225 square feet.

## SCHEDULE No. V.

*For water supplied by volume in the kharif season.*

For water supplied between the 1st of September and the 31st October, four rupees for a calculated discharge of one cubic foot per second for twelve hours. For less than a cubic foot per second or less than twelve hours, a proportionate charge shall be made, but a fraction of less than one-sixteenth shall be charged as one-sixteenth.

## SCHEDULE No. VI.

*For water supplied by volume to fill aharas*

For water supplied between the 1st of November and the 25th of March, one rupee for a calculated discharge of one cubic foot per second for twelve hours. For less than a cubic foot per second or less than twelve hours, a proportionate charge shall be made, but a fraction of less than one-sixteenth shall be charged as one-sixteenth.

*List of Officers in charge of Irrigation Circles and Divisions during the year 1892-93.*

Circle or Division.	Name of Officer.	Period of charge.
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## SECRETARIAT.

Joint-Secretary, Irrigation Department.	Mr. C. W. Odling	...	From 1st April 1892 to 16th January 1893.
Secretary, Irrigation Department.	Ditto	...	„ 17th January to 31st March 1893.
Under-Secretary, Irrigation Department.	„ G. C. Maconchy	...	„ 1st April 1892 to 31st March 1893.

Circle or Division.	Name of Officer.	Period of charge.
<b>SUPERINTENDING ENGINEERS IN CHARGE OF CIRCLES.</b>		
South-Western Circle ...	Lieutenant-Colonel A. D. McArthur, R.E.	From 1st April 1892 to 22nd March 1893 [on privilege leave from 23rd March 1893].
Ditto ...	Mr. D. B. Horn	.. 23rd to 31st March 1893. Officiating.
Orissa Circle ...	.. W. Connan	.. 1st April 1892 to 31st March 1893.
Sone Circle ...	.. W. A. Inglis	.. 1st April 1892 to 31st March 1893.

**EXECUTIVE ENGINEERS IN CHARGE OF CIRCLES.**

**SOUTH-WESTERN CIRCLE.**

Nadia Rivers Division ...	Mr. C. E. Livesay	From 1st April 1892 to 31st March 1893.
Comayo Division ...	.. J. P. Scotland	Ditto ditto.
Northern Drainage and Embankment Division.	.. T. M. L. Thompson	Ditto ditto.
Circular and Eastern Canals Division.	.. G. J. R. Leeson	.. 1st April 1892 to 15th March 1893.
Ditto	.. J. W. Fox, Honorary Assistant Engineer.	.. 16th to 31st March 1893.
Balasore Division	.. A. Hayes	.. 1st April 1892 to 31st March 1893.

**ORISSA CIRCLE.**

Aquapada-Jajpur Division ...	Rai Sahib Kally Pada Sen	From 1st April to 30th May 1892.
Ditto ditto ...	Mr. M. H. Arnott	.. 31st May 1892 to 31st March 1893.
Brahmini-Byturni Division ...	.. D. B. Horn	.. 1st April 1892 to 17th March 1893.
Ditto ditto ...	.. R. E. Carter	.. 18th March to 31st March 1893.
Puri Division	.. J. R. Swinden	.. 1st April to 20th September 1892.
Ditto	.. J. S. L. Long	.. 21st September 1892 to 25th January 1893.
Ditto	.. G. A. G. Shawe	.. 26th January 1893 to 6th March 1893.
Ditto	Rai Bahadur Prasanno Coomari Daniari.	.. 7th March to 31st March 1893.
Mahanadi Division	Mr. T. Butler	.. 1st March to 14th April 1892 [on privilege leave for 3 months from 16th April 1892].
Ditto ditto	Ditto	.. 15th July 1892 to 15th March 1893.
Ditto ditto	.. H. Barlow	.. 16th April to 14th July 1892.
Ditto ditto	.. G. A. G. Shawe	.. 16th March to 31st March 1893.

**SONE CIRCLE.**

Arrah Division ...	Mr. R. E. Carter	From 1st April 1892 to 27th February 1893.
Ditto	.. C. H. DeMello	.. 28th February to 31st March 1893.
Buxar Division ...	.. M. J. J. P. Norman	.. 1st April 1892 to 31st March 1893.
Eastern Sone Division	.. A. S. Thomson	.. 1st April to 2nd May 1892 (on privilege leave for 3 months from 3rd May 1892.)
Ditto	Ditto	.. 3rd August 1892 to 31st March 1893.
Ditto	.. A. E. Silk	.. 3rd May to 2nd August 1892.
Gandak Division	.. O. C. Lees	.. 1st April 1892 to 31st March 1893.
Dehri Workshop Division	.. L. R. Fraser	Ditto ditto.

**CANAL REVENUE OFFICERS.**

Deputy Collector, Revenue Division, Sone Canals.	Babu Saroda Prosad Chatterjee.	From 1st April 1892 to 31st March 1893 (on privilege leave from 17th June 1892 to 16th September 1892).
Ditto	Babu Siva Sanker Singh	.. 17th June 1892 to 16th September 1892. Officiating.
Deputy Revenue Superintendent, Orissa.	Mr. S. C. Roberts	.. 1st to 24th April 1892.
Deputy Collector, Revenue Division, Orissa Canals.	Babu Jugdum Sahai	.. 25th April 1892 to 31st March 1893.
Deputy Revenue Superintendent, Midnapore.	Mr. Koylash Chunder Ghose	.. 1st April 1892 to 31st March 1893.
Supervisor, Calcutta Canals	.. W. R. Cooksey	Ditto ditto.

**RESOLUTION ON THE REPORT FROM THE BOARD OF REVENUE \*  
ON THE ROAD AND PUBLIC WORKS CESS OPERATIONS FOR  
THE YEAR 1892-93.**

**FINANCIAL DEPARTMENT—ROAD AND PUBLIC WORKS CESS.**

*Calcutta, the 5th December 1893.*

RESOLUTION No. 5301R.P.

READ—

The Report of the Board of Revenue on the Road and Public Works cess operations for the year 1892-93.

The Road and Public Works cesses were levied at maximum rates during the year under review in all the districts in which Bengal Act IX of 1880 is in force, except in Backergunge, where, as in preceding years, the Public Works cess continued to be levied at the full rate, and the Road cess at half of the maximum rate. In reviewing the reports for 1890-91 and 1891-92, it was observed that the reasons which led to the reduction of the rate in Backergunge in 1877-78 had spent their force, and that the opposition of the District Board to increase the rate was no longer justifiable. The Lieutenant-Governor is glad to notice that the District Board have decided to levy road cess at three-fourths of the maximum rate in 1893-94. This is a step in the right direction, but the local authorities should not rest content until the full rate has been imposed, or the inability of the district to pay it has been satisfactorily demonstrated.

2. The following statement exhibits the main results of the working of the Cess Act during the past two years:—

	1892-93.	1891-92.
1 Current demand ... ..	Rs. 80,91,015	Rs. 79,67,933
2 Arrear demand (a) ... ..	„ 16,58,357	„ 19,44,615
3 Gross demand ... ..	„ 97,49,372	„ 99,12,548
4 Advance collections made in previous year ... ..	„ 2,49,067	„ 2,29,276
5 Net demand ... ..	„ 95,00,305	„ 96,83,272
6 Total collections ... ..	„ 82,76,738	„ 80,61,032
7 Remissions ... ..	„ 13,368	„ 25,453
8 Net balance (a) ... ..	„ 14,86,471	„ 18,35,454
9 Percentage of total collections on current demand...	102.2	101.1
10 Percentage of current collections on current demand	84.9	83.3
11 Number of revenue-paying estates assessed ... ..	212,670	255,655
12 Number of revenue-free estates and rent-free tenures assessed ... ..	188,593	196,955
13 Number of tenures assessed ... ..	1,264,601	1,211,264
14 Number of recorded shareholders in estates ... ..	1,302,506	1,597,918
15 Number of recorded shareholders in tenures ... ..	2,326,776	2,222,256
16 Current demand of land revenue ... ..	Rs. 3,83,72,332	Rs. 3,78,53,979
17 Present gross rental ... ..	„ 14,94,80,155	„ 14,78,83,221
18 Gross rental at first assessment ... ..	„ 13,11,68,432	

3. The figures for 1891-92 under the following heads, as given in the report under review, do not correspond with those given in the report for that year:—

- (11)—Number of revenue-paying estates assessed.
- (12)—Number of revenue-free estates and rent-free tenures assessed.
- (13)—Number of tenures assessed.
- (14)—Number of recorded shareholders in estates.
- (15)—Number of recorded shareholders in tenures.

The differences are due to rent-free tenures being shown separately in accordance with the orders of the Government, to the effect of revaluations, to the opening of separate accounts, to the creation of new estates by partition, to transfers of estates from one district to another, to the mutation of names of shareholders, and to the correction of errors.

(a) Excluding advance collections made in the current year on account of future years.

4 The arrear demand given above, as brought forward from 1891-92, is less than the net closing balance shown in the report of that year by Rs. 1,77,097, and the alteration in the figures is attributed to the adjustment of the accounts of rent-free tenures in Burdwan and in other districts, to the revaluations of rent-free holdings with retrospective effect, to the correction and adjustment of accounts, and to the revision of assessments. The total collections show an increase of Rs. 2,15,706 as compared with the figures of the preceding year. The percentage of arrear collections on arrear demand, and that of current collections on current demand, were 80·9 and 81·9 respectively, against 70·6 and 83·3 in 1891-92. The balance unrealised at the close of the year was smaller by Rs. 1,71,886 than that with which it opened. The remissions were reduced from Rs. 25,453 in 1891-92 to Rs. 13,368 during the year under review, but these figures do not include a sum of Rs. 1,90,310 written off with the sanction of the Board on account of the cesses of certain rent-free holdings in Burdwan. The general results of the year's work show an improvement over those of the preceding year, and are satisfactory as a whole, notwithstanding that in several districts, owing to the partial failure of crops, the collections fell off somewhat and that in this as in other years the fifteen days' grace allowed to assesses under section 45 of the Act affected collections.

5. The percentage of current collections on current demand fell short of 90 per cent., the accepted standard, in twenty-four districts against twenty-five in the year before that under review:—

			Percentage of current collections on current demand.	
			1892-93.	1891-92.
Manbhum	...	...	59·2	64·7
Hooghly	...	...	68·8	69·1
Champanian	...	...	69·6	75·7
Saran	...	...	70·7	66·2
Midnapore	...	...	72·0	76·9
Muzaffarpur	...	...	77·1	70·5
Patna	...	...	77·2	76·1
Jessore	...	...	77·9	74·6
Faridpur	...	...	78·8	74·2
Gaya	...	...	80·2	74·7
Bankura	...	...	80·6	79·7
Purnea	...	...	81·1	93·4
Monghyr	...	...	81·5	72·7
Rajshahi	...	...	82·0	82·6
24-Parganas	...	...	85·1	85·3
Darbhanga	...	...	86·2	85·4
Bakergunge	...	...	87·1	84·0
Murshidabad	...	...	87·3	88·4
Palamau	...	...	87·3	.....
Cuttack	...	...	87·8	91·5
Khulna	...	...	88·1	86·5
Burdwan	...	...	88·6	83·6
Lohardaga	...	...	88·8	93·5
Pabna	...	...	89·2	86·3

In all these districts, except Purnea, Cuttack, and Lohardaga, there was a failure to collect 90 per cent. in 1891-92 also, and the realisations in Manbhum, Hooghly, Champaran, Midnapore, and Murshidabad, during the year under review, were even worse than those of the preceding year. The short collections in Manbhum are explained by the Deputy Commissioner to be due to the unwillingness of the people of the district to pay the cesses until the certificate procedure is put in force. The Board rightly observe that the reason assigned is insufficient, because cess-payers would not voluntarily submit, without some good cause, to the extra payments which the issue of process involves, and the Lieutenant-Governor is not prepared to accept the explanation as satisfactory. The percentage of collections in this district has declined from 89·8 in 1889-90 to 59·2 in the year under review, and His Honour requests that energetic measures may now be taken to put matters on a proper footing.

The poor results in Hooghly are ascribed to a falling off in voluntary payments owing to the partial failure of crops during the past two years, and to the

difficulty of realising cesses from rent-free holdings, of which there are some 30,000 recorded in the district. The non-payment of cesses by some of the principal landholders of the district is said to have affected the collections in Champaran. The short collections in Midnapore are attributed to failure of crops and to the fact that coercive measures could not be taken until after December, in consequence of the whole office establishment having been engaged up to that time in correcting the mistakes of previous years and adjusting accounts. The involved circumstances of certain zamindars, the difficulty in tracing out the owners of rent-free holdings, and the fifteen days' grace allowed for payments, are said to have interfered with the collection of the demand in Murshidabad. No explanation is given of the short collections in Purnea, Rajshahi, the 24-Parganas, and Lohardaga. The bad result in Cuttack is said to have been due to the prevalence of high prices during the greater part of the year, and to the inability of the Collector's office to issue certificates in time. The latter in its turn is attributed to the issue of a larger number of certificates owing to the collections having been taken out of the hands of kanungos, and to the inadequacy of the amount provided in the budget on account of court-fees. It is stated that an application was made for an additional grant, but that no orders were received during the year. The Board observe that the high prices were due less to bad harvests in Orissa than to short harvests in Madras and Bengal, and that the high prices of produce with a fair crop should have facilitated collections; while as regards the delay in the issue of certificates, they consider that the Collector would have acted wisely if he had exceeded the grant in anticipation of sanction. The Lieutenant-Governor agrees with the Board in thinking that the reasons put forward in explanation of short collections in this district are inadequate. In the remaining districts given in the list above, the collections, though far from satisfactory, show an improvement as compared with the previous year.

6. In eight, as compared with thirteen, districts in the year 1891-92, the percentage of collection of the arrear demand was below 80 per cent.—

				Percentage of arrear collections on arrear demand.	
				1892-93.	1891-92.
Murshidabad	...	...	...	49·3	43·0
Burdwan	...	...	...	50·7	14·2
Bankura	...	...	...	53·1	51·3
Cuttack	...	...	...	60·0	80·5
Gaya	...	...	...	68·5	58·5
Shahabad	...	...	...	71·8	72·8
Midnapore	...	...	...	76·5	87·4
Darbhanga	...	...	..	76·9	80·2

In all these districts, with the exception of Shahabad, the current demand also was indifferently collected, the receipts being below 90 per cent. It is, however, satisfactory to notice that in the first three districts the collections, which were very low in 1891-92, show some improvement, although they are not yet up to the standard. In Cuttack and Darbhanga the percentage of collections was far below that of the preceding year, and in the former the causes which interfered with current collections are said to have affected the arrear collections as well. The bad result in Darbhanga is ascribed to the scarcity from which the district suffered in the first two quarters of the year, and to the people having been engaged in celebrating marriages in the fourth-quarter. The last is an excuse which does not commend itself to the Lieutenant-Governor, as the condition is more or less constant, and it seems likely that after the bad harvests in the earlier part of the year its effect must have been less rather than greater than usual.

7. Arrears to the extent of Rs. 6,618 have become barred by limitation. They occurred in five districts, Burdwan heading the list with Rs. 3,672. These figures are exclusive of the sum of Rs. 1,90,310 referred to in paragraph 4, which was written off as barred by limitation or otherwise irrecoverable. Moreover demands are said to have become barred in two other districts, viz., Midnapore and Hooghly, but the particulars have not been furnished.



8. The gross collections, i.e., the sum of both current and arrear collections, exceeded 90 per cent. of the gross demand in the seventeen districts given below as compared with eleven in 1891-92, and seven in 1890-91:—

		1892-93.		1891-92.	
		Percentage of current collections on current demand.	Percentage of arrear collections on arrear demand.	Percentage of current collections on current demand.	Percentage of arrear collections on arrear demand.
Darjeeling	...	99·8	100	99·8	100
Singhbhum	...	99·8	...	100	...
Jalpaiguri	...	99·5	100	94·4	100
Noakhali	...	97·6	99·3	89·0	91·5
Puri	...	97·3	91·0	96·1	69·6
Hazaribagh	...	96·1	99·9	97·2	100
Bogra	...	94·8	100	94·0	100
Birbhum	...	94·7	95·6	94·8	97·1
Nadia	...	94·3	98·9	93·9	99·3
Balasore	...	93·8	92·2	92·2	73·6
Rangpur	...	93·4	96·3	92·7	95·2
Dinajpur	...	92·3	99·5	84·1	99·5
Tippura	...	92·1	97·1	86·8	94·0
Mymensingh	...	92·0	93·4	92·5	95·6
Chittagong	...	91·1	95·9	91·8	94·4
Dacca	...	90·5	93·5	86·1	92·3
Malda	...	90·2	99·9	86·6	99·6

The results are satisfactory and creditable to the officers concerned, and the success of the local officers in Singhbhum, where there was no arrear demand and 99·8 per cent. was collected of the current demand, serves to accentuate the failure in the neighbouring district of Manbhum noticed in paragraph 5.

9. The certificate procedure under the Public Demands Recovery Act is in some parts of the province largely employed for the realisation of cesses, and the following statement compares the working of this procedure during the past two years:—

	1892-93.	1891-92.
Certificates pending from the previous year	... 49,718	30,494
Filed during the year	... 77,794	84,984
Total for disposal	... 127,512	115,478
Cancelled on objection	... 1,118	912
Struck off	... 7,341	1,631
Fully discharged	... 79,728	63,211
Pending at the close of the year	... 39,325	49,724
Sales effected	... 1,045	791
Sales set aside	... 30	17

The number of certificates filed was as usual smallest in the Chota Nagpur Division (553) and largest in the Patna, Burdwan and Presidency Divisions, where they amounted respectively to 25,053, 18,100 and 8,575. Taking districts singly, the largest number was instituted in Hooghly (7,154), Darbhanga (6,077); Gaya (4,543), Bankura (4,463), and Saran (4,141). In Midnapore the number of certificates filed was 350 in excess of that of the previous year, but owing to the delay in issuing the notices of demand the number disposed of was small, so that the unrealized balance at the close of the year rose from Rs. 72,347 in 1891-92 to Rs. 94,300 in the year under review. It is stated that this balance has been reduced by Rs. 25,000 since the close of the year, and now that the accounts have been put in order, the Lieutenant-Governor trusts that active measures will be taken to realise the arrears. His Honour is glad to observe that although the number of cases for disposal was larger than in 1891-92, the number disposed of was also greater, so that the number of certificate cases pending at the close of the year was in the whole province 10,399 less than in the preceding year.

10. Complete revaluations of the districts of Murshidabad, Nadia, Pabna, and Balasore were brought to a close during the year and resulted in each case in an increase on the existing valuation; and partial valuations and revaluations were concluded in the districts of the 24-Parganas, Jessore, Dinajpur, Bogra, Darjeeling, Jalpaiguri, Faridpur, Backergunge, Chittagong, Noakhali, Monghyr, Balasore, and Manbhum. Statement VII attached to the Board's

report shows that valuation or revaluation work is in progress in eighteen districts. In two of these, viz. Mymensingh and Noakhali, the valuation operations have been completed, but no completion report has been received. The Lieutenant-Governor desires that in future a column may be added to Statement VII showing the date of the commencement of proceedings in each district.

11. Statement VI, appended to the Report, compares the gross rental for 1892-93, calculated from the returns under the Cess Act, with the gross rental ascertained in the same manner when road cess was first assessed. The gross rental at first assessment compares as follows with the gross rental in 1891-92 and in 1892-93 :—

			Rs.
Gross rental at first assessment	...	...	13,11,68,482
Ditto in 1891-92	...	...	14,78,83,221
Ditto in 1892-93	...	...	14,94,80,155

As in the preceding year, there was a decrease of gross rental in eight districts compared with the gross rental at first assessment: in seven of them the decrease is due either to transfer of areas from these districts to others, or to diluvion. Backergunge, the remaining district, which last year showed an increase on the original valuation, now shows a decrease owing to a reduction in the valuation of the Dakhin Shabazpur estate under section 37 of the Cess Act. Tippera shows an increase of Rs. 1,22,364 as against a decrease of Rs. 1,00,615 in 1891-92. This result is attributed to the effect of valuations and revaluations.

12. The names of the Deputy Collectors whose work is favourably noticed by the Board will be communicated to the Appointment Department.

13. The Lieutenant-Governor's acknowledgments are due to the Board for their careful and efficient administration of the Department, and for the complete report now submitted.

By order of the Lieutenant-Governor of Bengal,

J. A. BOURDILLON,

*Offg. Secretary to the Government of Bengal.*

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 2nd December, 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL.</b>			
Burdwan Divn.	1. Burdwan Dec. 2, '93	Nil	Weather—cold and occasionally cloudy. Winter rice is being 'harvested'. Sowing of <i>rabi</i> crops nearly finished. Fodder and water sufficient. Prices of common rice:—  <div style="display: flex; justify-content: flex-end; align-items: center;"> <div style="text-align: right;"> Srs.  13 to 15  9 to 13  15  15 </div> <div style="font-size: 2em; margin: 0 10px;">}</div> <div>per rupee.</div> </div>
	Kalna ...	Nil	
	Katwa ...	Nil	
	Raniganj ...	Nil	
	2. Bankura „ 2, '93	Nil	Weather—generally fair. Harvesting of <i>haimanti</i> rice has begun all over the district. <i>Rabi</i> crops thriving. Fodder and water sufficient. Common rice selling at 18 seers per rupee at Sadar and 17 seers at Vishnupur.
	3. Birbhum „ 2, '93	Nil	Weather—seasonable but occasionally cloudy. Harvesting of winter rice continues. Spring crops are being sown. Common rice sells at from 16 to 19 seers per rupee.
	Rampur H&L ...	Nil	
	4. Midnapore „ 2, '93	Nil	Weather—mornings and evenings cool, days warm. Prospects of crops continue good. Paddy being harvested. Fodder and water abundant. Prices of common rice:—  <div style="display: flex; justify-content: flex-end; align-items: center;"> <div style="text-align: right;"> Srs.  15  13  14 to 16 </div> <div style="font-size: 2em; margin: 0 10px;">}</div> <div>per rupee.</div> </div>
	5. Hooghly „ 2, '93	Nil	Weather—seasonable. Harvesting of <i>aman</i> going on; outturn satisfactory. <i>Rabi</i> sowing in progress. Fodder and water sufficient. Prices of common rice:—  <div style="display: flex; justify-content: flex-end; align-items: center;"> <div style="text-align: right;"> Srs.  13  10 to 14  11 to 14 </div> <div style="font-size: 2em; margin: 0 10px;">}</div> <div>per rupee.</div> </div>
	Serampore ...	Nil	
	Jahanabad ...	Nil	
Presidency Divn.	6. Howrah „ 2, '93	Nil	Weather—seasonable. Reaping of winter rice continues. Spring crops and sugarcane doing well. Condition of cattle good. Fodder and water-supply sufficient. Price of rice 10 seers per rupee at Sadar, 11 to 13 seers at Ulubaria.
	Ulubaria ...	Nil	
	7. 24 Parganas „ 2, '93	Nil	Weather—seasonable. <i>Aman</i> is being harvested. Sowing of <i>rabi</i> crops continues. No cattle-disease reported. Fodder and water sufficient. Prices of common rice:—  <div style="display: flex; justify-content: flex-end; align-items: center;"> <div style="text-align: right;"> Srs. c.  10 13  10 10½  11 0  13 8 </div> <div style="font-size: 2em; margin: 0 10px;">}</div> <div>per rupee.</div> </div>
	8. Nadia „ 2, '93	Nil	Weather—co l. Prospects of <i>aman</i> fair. <i>Rabi</i> cultivation finished. Prices have slightly fallen. Fodder and water sufficient. No cattle-disease.
	Kushtia ...	Nil	
	Meherpur ...	Nil	
	Chuaadanga ...	Nil	
	Ranaghat ...	Nil	Weather—seasonable. Prospects of <i>aman</i> good. Sowing of <i>rabi</i> nearly complete. Harvesting of early paddy going on. Common rice selling at from 9 to 13 seers per rupee. Water and fodder sufficient.
	9. Khulna „ 2, '93	Nil	
	Bagerhat ...	Nil	
	Satkhira ...	Nil	
	10. Jessore „ 2, '93	Nil	Weather—seasonable. Harvesting of <i>chottan aman</i> going on. Sowing of winter crops nearly finished. Prospects fair. No cattle-disease reported. Fodder and water sufficient. Prices slightly lower owing to the appearance of new rice in the market.
	Jhenida ...	Nil	
	Magura ...	Nil	
	Narail ...	Nil	
	Bangaon ...	Nil	
	11. Murshidabad „ 2, '93	Nil	Weather—seasonable. Sowing of <i>rabi</i> crops continues, that of indigo finished. Harvesting of early <i>aman</i> has commenced. State of <i>kalai</i> does not appear to be good. Fodder sufficient for cattle. Common rice sells at 13 seers per rupee.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL—concl'd.</b>			
CHITTAGONG DIVN.	12 Chittagong Dec. 2, '93	Nil	Weather—seasonable. Early <i>aman</i> being harvested. Sowing and transplanting of <i>rabi</i> crops continue. Prospects good. Prices steady. Fodder and water sufficient.
	13 Noakhali „ 2, '93	Nil	Weather—seasonable. Occasionally cloudy. State of standing crops good, but to a little extent damaged by insects in some thanas. Fodder and water sufficient. No cattle-disease. Prices of common rice:— <div style="text-align: right;">Srs. c.</div> <div style="text-align: right;">Noakhali ... .. 12 6 } per rupee.</div> <div style="text-align: right;">Fenny ... .. 12 0 }</div>
	14 Tippera „ 2, '93	Nil	Weather—seasonable. <i>Aman</i> being reaped. Prospects not bad; 10 annas crop expected. Damages are being done by insects in one of the thanas of the Sadar subdivision. Fodder much improved.
	15 Chittagong Hill Tracts. Nov. 30, '93	Nil	Weather—seasonably cold. Late plough-paddy about to ripen. Vegetables selling in the bazar. Condition of cattle generally good. Prices of common rice:— <div style="text-align: right;">Srs.</div> <div style="text-align: right;">Rangamati ... .. 10 } per rupee.</div> <div style="text-align: right;">Banderban ... .. 8 1/4 }</div> <div style="text-align: right;">Manicksury ... .. 12 }</div>
	16 Dacca Dec. 2, '93	Nil	Weather—seasonable. Harvesting of <i>aman</i> paddy going on. Prospects favourable. Sowing of pulses in low lands still going on. Common rice selling at from 8 to 10 seers per rupee. Fodder available. No cattle-disease.
DACC DIVN.	17 Faridpur „ 2, '93	Nil	Weather—seasonable. <i>Aman</i> paddy being harvested. <i>Rabi</i> crops being sown. State of sugarcane and <i>kalai</i> fair. Cattle get fodder sufficiently, and no cattle-disease. Prices of common rice:— <div style="text-align: right;">Srs.</div> <div style="text-align: right;">Sadar ... .. 11 } per rupee.</div> <div style="text-align: right;">Goulundo ... .. 13 }</div> <div style="text-align: right;">Madaripur ... .. 10 }</div>
	18 Backergunge „ 2, '93	Nil	
	19 Mymensingh „ 2, '93	Nil	
RAJSHAH DIVN.	20 Dinajpur „ 2, '93	Nil	Weather—cool and pleasant. New rice is being reaped and the price has slightly fallen. Winter crops all doing well. Condition of cattle good. Fodder and drinking water ample.
	Thakurgaon ...	Nil	
	21 Rajshahi „ 2, '93	Nil	Weather—getting cold; seasonable. Nothing new to report in respect of the crops. There will be an excellent rice crop. Cultivation of <i>rabi</i> progressing favourably. Fodder and water-supply ample. No cattle-disease. Price of rice varies from 10 to 16 seers per rupee.
	Nator ...	Nil	
	Naugason ...	Nil	
	22 Rangpur „ 2, '93	Nil	Weather—fine and cool. <i>Aman</i> harvest proceeding; the outturn will be from 18 to 20 annas. Tobacco has been transplanted and is thriving. Mustard doing well. Price of rice unchanged.
	Kuriganon ...	Nil	
	Gaibanda ...	Nil	
	Nilphamari ...	Nil	Weather—seasonable. Sowing of <i>rabi</i> almost finished. Harvesting of <i>aman</i> in full swing. Sugarcane thriving. Common rice selling at 16 seers per rupee. Fodder and water sufficient.
	23 Bogra „ 2, '93	Nil	
	24 Pabna „ 2, '93	Nil	Weather—cool and pleasant. Prospects of standing crops continue good. <i>Aman</i> is being harvested. Price of common rice 11 seers per rupee at Sadar, stationary at Sirajganj.
	25 Darjeeling „ 2, '93	0-16 0-33	Weather—bright and cool. In the hills:— <i>Haimanti dhan</i> , <i>marua</i> , <i>kalai</i> and potatoes are being harvested. <i>Tores</i> and <i>phaphur</i> flowering. Wheat and barley progressing well. In the Terai:— <i>Haimanti dhan</i> harvested. Mustard, <i>kalai</i> , <i>til</i> , potatoes, tobacco and sugarcane doing well. Prices of coarse rice:— <div style="text-align: right;">Srs.</div> <div style="text-align: right;">Hills ... .. 8 to 11 } per rupee.</div> <div style="text-align: right;">Terai ... .. 11 to 13 }</div>
	26 Jalpaiguri „ 2, '93	0-39	Weather—cold. Prospects of standing crops good everywhere. Harvesting of <i>haimanti</i> paddy commenced. Ploughing and sowing of <i>rabi</i> crops commenced. Price of rice stationary. Fodder and water-supply sufficient. No cattle-disease reported.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.	
BIHAR.				
BHAGALPUR DIV.	27	Monghyr Jamui Begusarai	Dec. 2. '93 ... ... Nil Nil Nil	Weather—seasonably cold in the night and early in the morning. Winter rice being harvested. Prospects favourable. <i>Rabi</i> sowings finished. Standing crops doing well. Fodder and water sufficient. New rice is coming to market. Prices of common rice:—  Sadar ... .. 12 to 20 Begusarai ... .. 13 to 18 Jamui ... .. 19½ } per rupee.
	28	Bhagalpur Banka Madhipura Supaul	.. 2 '93 ... ... ... Nil Nil Nil Nil	Weather—warmer than last week with skies often clouded. The <i>kharij</i> harvest is in full swing. As far as can now be seen, the outturn will be above the average. <i>Rabi</i> crops are all doing remarkably well, mustard being in flower. Price of common rice 15 seers 2 chitaks per rupee.
	29	Purnea Kishanganj Araria	.. 2 '93 ... ... Nil Nil Nil	Weather—cold and seasonable. Rice harvest in progress; outturn good. <i>Rabi</i> doing well. Fodder and water-supply plentiful. Prices stationary.
	30	Walda	.. 2, '93 Nil	Weather—fair and getting cooler. Harvesting of winter paddy continues with good result. <i>Kalai</i> , wheat, and other <i>rabi</i> crops growing well. Price of common rice 11 to 25 seers per rupee. Fodder and water ample.
	31	Sonthal Parganas Deoghur Godda Jamtara Pakur Rajmahal	.. 2. '93 ... ... ... ... ... Nil Nil Nil Nil Nil	Weather—bright and cold. Harvesting of <i>aghani</i> paddy, <i>kurthi</i> , <i>kalai</i> , <i>til</i> and <i>surguja</i> still continues. Prospects of standing crops excellent. Fodder and water sufficient.
	32	Patna	.. 2. '93 Nil	Weather—clear and getting cooler day by day. Harvesting of paddy in progress. <i>Rabi</i> and poppy sowings almost completed. Prospects favourable. Prices of common rice:—  Sadar ... .. 19 Barh ... .. 15 Bihar ... .. 21 Dinapore ... .. 15½ } per rupee.
	33	Gaya Nawada Jahanabad Aurangabad	.. 2, 93 ... ... ... Nil Nil Nil Nil	Weather—seasonable. Harvesting of paddy going on. Sowing of poppy and <i>rabi</i> almost complete. Weeding of poppy in progress. Prices of food-grains falling. Fodder and water for cattle ample.
	34	Shahabad Buxar Sasaram Bhabhua	.. 2, '93 ... ... ... Nil Nil Nil Nil	Weather—seasonable. Prospects of all crops, including poppy, excellent. Prices steady.
	35	Darbhanga	.. 2, '93 Nil	Weather—west winds prevailing, but days are still hot. Harvesting of paddy in progress. <i>Rabi</i> sowings being vigorously pushed on and the plants are coming on well. Poppy cultivation progressing favourably. Prices falling. Fodder and water for cattle sufficient.
	36	Muzaffarpur	.. 2, '93 Nil	Weather—seasonable. Standing crops doing well. <i>Rabi</i> sowings nearly finished. Harvesting of paddy going on. One case of <i>dukha</i> (cattle-disease) reported from Sarsand outpost and also two deaths of cattle from small-pox. Fodder and water for cattle sufficient.
	PATNA DIVISION.			

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
BIHAR—conold.			
PATNA DIVISION—conold.	37	Saran Dec. 2, '98	Nil
		Siwan ...	Nil
		Gopalganj ...	Nil
	Weather—has at last become seasonably clear and cool. Paddy being generally cut, and a good outturn expected. <i>Rabi</i> crops looking well and also sugarcane. Poppy flourishing. Fodder and water plentiful. Prices of common rice :—		
			Srs. c.
		Sadar ... ..	15 8
		Siwan ... ..	19 0
		Gopalganj ... ..	17 2
	} per rupee.		
	38	Champaran .. 2, '93	Nil
Weather—seasonable. Reaping of <i>aghani</i> in progress. <i>Rabi</i> sowings going on. Prices slightly falling. Slight scarcity of fodder.			
ORISSA.			
ORISSA DIV.	39	Cuttack .. 2, '93	Nil
	Weather—seasonable. Harvesting of <i>laghu sarad</i> still continues. <i>Guru sarad</i> maturing. Prospects good. Prices of common rice :—		
			Srs. c. Srs. c.
		Sadar ... ..	10 8 to 14 7
		Jaypur ... ..	11 12 to 16 0
		Kendrapara ... ..	15 0 to 21 0
		Banki ... ..	18 0
	} per rupee.		
	40	Puri Nov. 30, '93	0.06
		Khurda ...	Nil
Weather—seasonable. <i>Sarad</i> rice doing well and in places beginning to ripen. <i>Laghu</i> rice being reaped. Miscellaneous crops doing well. General prospects good. Prices of common rice :—			
		Srs. c. Srs. c.	
	Sadar ... ..	15 12 to 21 0	
	Khurda ... ..	14 7 to 17 1	
} per rupee.			
41	Balasore Dec. 2, '93	Nil	
Weather—normal. Harvest of winter rice continues. Price of coarse rice :—			
		Srs.	
	Balasore ... ..	19	
	Bhadrak ... ..	18	
} per rupee.			
CHOTA NAGPUR.			
South-West Frontier Agency.			
CHOTA NAGPUR DIV.	42	Hazaribagh Dec. 2, '93	Nil
		Giridi ...	Nil
	Weather—clear and cold. Harvesting of paddy nearly over; bumper crop. <i>Rabi</i> doing well. Poppy is being weeded and very promising. Common rice selling at from 14 to 20 seers per rupee.		
	43	Lohardaga .. 2, '93	Nil
	Weather—getting cold. Harvesting of winter rice continues. Common rice selling at 18 seers per rupee. Fodder and water plentiful.		
	44	Palamu .. 2, '93	Nil
	Weather—seasonable. Harvesting of paddy well in hand. <i>Rabi</i> sowing in full swing. A little cattle-disease in the Daltonganj thana. Prices stationary.		
	45	Singhbhum .. 2, '93	Nil
	Weather—clear and cold. Condition of the crops good. Paddy is being harvested with full average outturn. Price of rice 16 to 20 seers per rupee.		
	46	Manbhum .. 2, '93	Nil
	Gobindpur ...	Nil	
Weather—bright and cold. Prospects of crops very good. Harvesting of winter rice in full swing. Price of rice 14 to 20 seers per rupee. Fodder and water sufficient.			

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 5th December, 1893.

M. FINUCANE,  
Offg. Secy. to the Govt. of Bengal.

**PRICES-CURRENT (*RETAIL*) OF FOOD-GRAINS, FIREWOOD AND SALT IN THE  
HEAD-QUARTERS STATION BAZARS OF THE DISTRICTS OF BENGAL  
DURING THE FORTNIGHT ENDING THE  
3<sup>TH</sup> NOVEMBER 1893.**

## PRICES-CURRENT (retail) of Food-grains, Firewood, and Salt in the

QUANTITIES PER RUPEE IN

Number.		DISTRICTS.	QUANTITIES PER RUPEE IN																								
			WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU. ( <i>Sorghum Vulgare</i> .)												
			Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.							
BENGAL.																											
BURDWAN DIVISION.	1	Burdwan	14 14	13 4	11 12	...	...	...	11 12	9 12	9 3	14 1	12 12	11 10	...	...	...	...	...	...	...	...	...	...	...	...	...
	2	Bankura	15 4	15 4	12 0	...	...	...	10 0	9 6	10 4	17 4	17 8	12 14	...	...	...	...	...	...	...	...	...	...	...	...	...
	3	Birbhum	10 8	10 8	10 4	...	...	...	12 0	10 8	10 4	16 8	13 8	13 0	...	...	...	...	...	...	...	...	...	...	...	...	...
	4	Midnapore	11 0	11 0	11 8	...	...	...	10 0	10 0	8 12	16 0	15 10	12 8	...	...	...	...	...	...	...	...	...	...	...	...	...
	5	Hooghly	14 0	12 0	12 0	14 0	12 0	13 0	8 8	9 0	8 0	10 12	10 8	9 0	...	...	...	...	...	...	...	...	...	...	...	...	...
	6	Howrah	...	...	...	...	...	...	...	9 8	9 8	8 11	11 8	11 8	11 7	...	...	...	...	...	...	...	...	...	...	...	...
PRESIDENCY DIVISION.	7	Calcutta	12 10	12 9	11 0	15 6	16 3	14 0	7 5	7 3	8 0	9 11	9 12	10 0	19 1	18 4	17 0	...	...	...	...	...	...	...	...	...	...
	8	24-Parganas	13 4	13 4	11 8	16 0	16 0	15 0	7 0	7 0	8 0	12 8	11 8	11 4	...	...	...	...	...	...	...	...	...	...	...	...	...
	9	Nadia	15 3	15 3	12 8	...	...	...	8 0	7 9	9 0	12 8	12 1	11 6	...	...	...	...	...	...	...	...	...	...	...	...	...
	10	Khulna	...	...	...	...	...	...	9 0	8 0	9 0	11 0	10 0	10 0	...	...	...	...	...	...	...	...	...	...	...	...	...
	11	Jessore	8 0	8 0	10 8	...	...	...	8 8	8 0	8 8	12 3	10 0	12 0	...	...	...	...	...	...	...	...	...	...	...	...	...
	12	Murshidabad	14 0	14 0	12 0	...	...	...	10 0	10 0	10 0	13 0	13 0	12 0	...	...	...	...	...	...	...	...	...	...	...	...	...
CHITTAGONG DIVISION.	13	Chittagong	11 0	11 0	9 4	...	...	...	8 11	8 8	8 10	12 4	11 13	13 0	...	...	...	...	...	...	...	...	...	...	...	...	...
	14	Noakhali	...	...	...	...	...	...	8 0	7 0	10 0	{ 11 0 to 12 0 }	{ 9 0 to 10 4 }	13 0	...	...	...	...	...	...	...	...	...	...	...	...	
	15	Tippera	9 12	9 12	10 6	...	...	...	8 4	8 0	8 8	10 0	8 8	10 13	...	...	...	...	...	...	...	...	...	...	...	...	...
	16	Chittagong Hill Tracts.	...	...	...	...	...	...	...	...	...	8 14	8 14	8 14	...	...	...	...	...	...	...	...	...	...	...	...	...
DACCA DIVISION.	17	Dacca	12 0	13 0	...	...	16 0	...	8 8	7 8	8 8	9 8	9 0	14 0	...	...	...	...	...	...	...	...	...	...	...	...	...
	18	Faridpur	16 0	14 8	11 0	18 0	...	...	7 0	9 0	8 0	10 0	11 8	12 0	...	...	...	...	...	...	...	...	...	...	...	...	...
	19	Backergunge	...	...	...	...	...	...	8 4	8 0	8 4	{ 10 0 to 11 7 }	{ 9 0 to 10 4 }	8 6	12 0	...	...	...	...	...	...	...	...	...	...	...	
	20	Mymensingh	9 8	9 8	9 8	...	...	...	8 0	7 0	10 0	9 0	8 0	12 0	...	...	...	...	...	...	...	...	...	...	...	...	...
RAJSHAHI DIVISION.	21	Dinajpur	14 6	15 10	11 4	12 8	...	15 12	9 8	9 8	9 0	13 3	13 3	13 0	...	...	...	...	...	...	...	...	...	...	...	...	...
	22	Rajshahi	16 8	15 12	12 12	21 0	18 12	15 12	9 0	10 8	9 0	12 0	11 4	11 4	...	...	...	...	...	...	...	...	...	...	...	...	...
	23	Rangpur	14 0	13 5	11 8	14 0	...	...	8 4	8 0	8 0	11 8	10 0	11 0	...	...	...	...	...	...	...	...	...	...	...	...	...

A In the subdivisions the retail prices of salt per rupee are:—Kalna 10 seers, Katwa 10 seers, and Raniganj 10 seers.

B At Vishnupur the retail price of salt is 10 seers per rupee.

C At Rampur Hat the retail price of salt is 10 seers per rupee.

D In the subdivisions the retail prices of salt per rupee are:—Contai 10 seers, Tamluk 10 seers, and Ghatal 10 seers 7 chitaks.

E In the subdivisions the retail prices of salt per rupee are:—Serampur (Bhadraswar) 10 seers and Jahanabad 10 seers.

F At Ulubaria the retail price of salt is 11 seers per rupee.

G In the marts in the interior of the district the retail prices of salt per rupee are:—Chetla Hat 10 seers 10 chitaks, Baduria

11 seers, Barasat 10 seers, and Muga Hat 10 seers.

H In the subdivisions the retail prices of salt per rupee are:—Rushtia (Babadurkhali) 10 seers, Chuadanga 10 seers, Meherpur

10 seers, and Raanaghat 10 seers.

I In the subdivisions the retail prices of salt per rupee are:—Bagerhat 8 seers and Satkhira 9 seers 2 chitaks.

J In the subdivisions the retail prices of salt per rupee are:—Jhenida 9 seers, Magura 9 seers, Narail 9 seers 10 chitaks, and

Bongaon 10 seers 11 chitaks.





## PRICES-CURRENT (retail) of Food-grains, Firewood, and Salt in the Head-quarters

Number.		DISTRICTS.	QUANTITIES PER RUPEE IN														
			WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU. ( <i>Sorghum Vulgare</i> .)		
			Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
BENGAL—continued.																	
RAJSHAHI DIVISION— —contd.	23	Bogra	15 0	13 8	10 14	...	...	...	7 14	7 8	7 8	15 12	12 0	15 0	...	...	...
	24	Pabna	15 12	16 14	13 4	21 0	21 0	...	6 0	6 0	6 12	12 12	12 0	13 4	...	...	...
	25	Darjeeling	8 0	3 0	7 0	9 0	9 0	8 0	5 8	5 8	5 0	12 0	11 8	10 0	...	...	...
	26	Jalpaiguri	13 0	13 0	11 0	13 0	13 0	13 0	8 0	8 0	6 0	11 0	10 0	10 8	...	...	...
BIHAR.																	
BEHAR DIVISION.	27	Monghyr	16 4 to 18 14	15 3 to 17 13	12 0 to 13 0	12 0 to 19 15	18 14 to 19 15	14 0 to 15 0	10 8	10 8	8 8 to 9 0	16 13	14 11	11 8	16 4 to 16 13	15 12 to 16 13	...
	28	Bhagalpur	16 6	15 2	15 14	20 3	20 3	12 10	10 1	10 12	9 7	New 18 15	15 2	13 4	...	...	...
	29	Purnea (Kasba)	18 0	16 0	10 0	...	...	...	10 0	10 0	12 8	18 0	16 0	15 0	...	...	...
	30	Malda (English Bazar).	16 0	16 0	13 0	...	...	...	10 0	...	10 0	15 0	14 0	14 0	...	...	...
	31	Sonthal Parganas.	12 8	13 8	11 0	...	...	...	11 8	11 0	9 0	18 0	14 8	15 0	...	...	...
PATNA DIVISION.	32	Patna	18 0 to 17 0	Red. 17 0 White. 16 0	15 0 to 14 0	21 0 to 19 8	24 0 to 19 0	21 0 to 17 0	11 0 to 9 12	11 0 to 9 8	11 0 to 9 0	19 0 to 16 0	19 0 to 14 4	16 0 to 14 8	19 8 to 17 8	20 4 to 17 8	...
	33	Ghysa	15 0	15 0	12 8	19 8	19 0	17 0	9 12	9 8	9 0	16 0	14 4	14 8	19 8	17 8	20 4
	34	Shahabad	13 0	13 0	14 0	21 0	20 0	16 0	9 0	9 0	8 0	16 0	16 0	12 0	...	...	...
	35	Darbhanga	14 4	14 0	12 10	16 8	13 0	12 1	13 0	13 0	11 0	17 8	15 0	15 6	...	...	...
	36	Muzaffarpur	13 0	13 0	12 0	20 0	20 0	16 0	8 0	8 0	8 0	12 8	12 8	16 0	...	...	...
	37	Saran	14 0	11 4	13 8	18 8	19 0	16 8	12 0	11 12	9 8	15 8	15 0	13 12	...	...	...
	38	Champaran	13 0	12 12	10 12	No sale.	22 2	14 4	8 8	8 0	9 0	19 0	16 12	16 0	...	...	...
ORISSA.																	
ORISSA DIVISION.	39	Cuttack	13 2	11 13	10 8	...	...	...	10 8	10 8	10 8	14 7	13 13	13 2	...	...	...
	40	Puri	10 8	9 3	...	...	...	...	8 0	8 0	7 1	15 12	14 7	13 2	...	...	...
	41	Balasore	14 0	14 0	11 0	10 0	10 0	10 0	11 0	11 0	10 0	19 0	18 4	15 0	...	...	...
CHOTA NAGPUR.																	
CHOTA NAGPUR DIVISION.	42	Hazaribagh	12 0 to 13 0	12 0 to 12 12	12 0	16 0	16 0	11 0	8 0	8 0	8 0	12 8 to 17 0	13 4 to 17 0	13 0	...	...	...
	43	Lohardaga (Rancha.)	10 0 to 11 0	Red. 11 0 White. 8 0	12 0 to 8 0	15 0 to 8 0	16 0 to 10 0	9 0	13 0 to 14 0	13 0 to 16 0	10 0 to 12 0	18 0 to 20 0	15 0 to 22 0	16 0 to 16 0	...	...	...
	44	Jhameau	12 6	13 8	10 15	...	25 9	13 8	10 11	14 10	...	14 10	18 9	15 12	...	...	...
	45	Singhbhum	12 0	12 0	12 0	...	...	...	12 0	10 0	11 0	16 0	16 0	14 0	...	...	...
46	Manbhum	13 4	14 0	11 12	16 0	...	...	...	9 0 to 10 0	9 8	8 8	16 8 to 19 8	16 0 to 18 0	14 0 to 15 0	...	...	...

At Sirajganj the retail price of salt is 10½ seers per rupee.

At Siliguri the retail price of salt is 9 seers per rupee.

At Alipur the retail price of salt is 8 seers per rupee.

In the subdivisions the retail prices of salt per rupee are:—Bogusara 9½ seers and Jamui 10 seers.

In the subdivisions the retail prices of salt per rupee are:—Banka 9 seers, Madhipura 8½ seers, and Supaul 9 seers.

In the subdivisions the retail prices of salt per rupee are:—Kishanganj 10 seers and Arraria 9 seers.

In the subdivisions the retail prices of salt per rupee are:—Deoghur 10½ seers, Gonda 9 seers, Juntara 9 seers, Pakur 10½ seers, and Rajmahal 9 seers.

In the subdivisions the retail prices of salt per rupee are:—Barh 10 seers 10 chitaks, Bihar 9½ seers.



PRICES-CURRENT (wholesale) of Food-grains, Firewood, and Salt

Number.	MARTS.	WHEAT.			BARLEY.			RICE, BEST SORT.			RICE COMMON.		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
		R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
1	Calcutta ...	3 2 6	3 2 9	3 6 0	2 0 6	2 7 6	2 12 0	5 7 6	5 8 0	5 0 0	4 0 3	4 0 6	3 12 0
2	Sirajganj ...	2 8 0	2 13 0	3 8 0	...	...	...	5 12 0	5 8 0	5 8 0	4 0 0	4 0 0	4 0 0
3	Daoca ...	3 4 0	3 2 0	...	...	2 8 0	...	4 8 0	5 0 0	4 10 0	4 0 0	4 4 0	2 13 0
4	Narayanganj ...	...	...	...	...	...	...	4 10 0	4 11 0	3 12 0	3 8 0	3 10 0	3 6 0
5	Chittagong ...	3 4 0	3 8 0	4 0 0	...	...	...	4 8 0	4 8 0	4 6 0	3 2 8	3 5 8	3 0 0
6	Patna ...	2 3 6	2 6 0	2 10 0	1 10 6	1 10 6	1 14 6	3 10 0	3 10 0	3 10 3	2 1 6	2 1 6	2 8 0
7	Balasoro ...	2 6 0	2 8 0	2 13 0	4 0 0	4 0 0	3 12 0	3 12 0	3 12 0	3 12 0	2 1 6	2 3 0	2 10 0
8	Puri ...	2 14 0	2 14 0	3 8 0	...	...	...	5 0 0	5 0 0	5 10 0	2 8 0	2 12 0	3 0 0
9	Cuttack ...	3 12 0	4 7 0	...	...	...	...	3 10 0	3 10 0	3 12 0	2 12 0	2 14 0	3 0 0
		3 0 0	3 6 0	3 12 0	...	...	...	3 10 0	3 10 0	3 12 0	2 12 0	2 14 0	3 0 0

CALCUTTA,  
The 5th December, 1893.

## PRICES PER MAUND

JOWAR OR CHOLUM. ( <i>Sorghum Vulgare</i> .)			BAJRA OR CUMBU. ( <i>Pennisetum typhoides</i> .)		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
2 1 6	2 2 0	2 3 0	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...

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published on the 30th November, 1893.

ARHAR OR THUR, CADJAN P'RA. ( <i>Cajanus indicus</i> .)			FIREWOOD.			SALT.			MARTS.
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	
0 2 3 6	2 3 6	2 6 0	0 7 0	0 7 0	0 7 0	3 11 0	3 10 6	3 6 0	Calcutta.
...	...	...	0 6 6	0 6 6	0 6 6	3 12 0	3 12 0	3 8 0	Sirajganj.
2 2 0	2 10 0	...	0 5 0	0 5 0	0 5 0	4 8 0	4 8 0	3 10 0	Dacca.
2 4 0	2 14 0	3 6 0	0 6 0	0 6 0	0 8 0	4 8 0	3 12 0	3 7 0	Narayanganj.
...	...	...	0 8 0	0 8 0	0 5 0	4 0 0	4 0 0	3 13 0	Chittagong.
3 1 7 9	1 7 9	1 14 6	0 5 0	0 5 0	0 5 0	3 10 0	3 10 0	3 8 0	Patna.
4 0 0	4 0 0	3 10 0	...	...	...	3 12 0	4 0 0	3 10 0	Buldhara.
2 5 0	2 5 0	...	0 8 0	0 8 0	...	3 8 0	3 8 0	3 6 0	Puri.
3 0 0	2 0 0	2 7 0	0 8 0	0 8 0	0 8 0	3 8 0	3 8 0	3 5 0	Cuttack.

published for general information.

M. FINUCANE,

Offy. Secretary to the Govt. of Bengal.

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	STATION OBSERVATIONS.													
	DISTRICT.	Representative station.	AIR PRESSURE.				WIND.		TEMPERATURE.					
			Mean barometrical height reduced to 32°.	Mean reduced to sea-level and constant gravity, lat. 45°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.
ORISSA.	Puri	Puri	30.075	30.038	—	N	180.9	84.7	27th Nov.	63.6	29th Nov.	82.0	60.8	74.9
		Gopalporo	30.077	30.038	+0.02	NNW	195	84.2	26th "	60.1	1st Dec.	82.3	60.4	74.4
		False Point	30.078	30.041	+0.035	N	141	83.1	26th "	58.0	28 & 29 Nov.	81.5	61.6	71.6
SOUTH-WEST BENGAL.	Cuttack	Cuttack	29.015	30.041	+0.034	Calm	71	87.2	26th "	60.3	23th "	84.0	61.2	74.1
	Balasore	Balasore	30.044	30.049	+0.009	Nly	66	84.4	26th "	55.5	29th "	81.3	58.7	70.1
	Midnapore	Midnapore	29.062	30.064	+0.002	Nly	36	85.3	26th "	57.2	20th Nov. & 2nd Dec.	82.2	59.1	70.7
SOUTH-WEST BENGAL.	24-Parganas	Calcutta	30.074	30.042	+0.027	NW	98	82.3	26th "	58.2	2nd "	78.9	60.1	69.5
		Saugor Island	30.070	30.039	+0.033	Nly	185	82.2	26th "	50.4	2nd "	79.7	63.7	71.7
	Howrah	Howrah	30.050	30.048	+0.002	NWly	55	82.7	26th "	55.5	30th Nov.	80.2	59.0	69.6
SOUTH-WEST BENGAL.	Nadia	Krishnagar	30.062	30.041	+0.021	NWly	32	82.6	26th "	57.5	2nd Dec.	80.0	60.1	70.1
	Khulna	Jessore	30.062	30.041	+0.021	NWly	32	82.6	26th "	57.5	2nd Dec.	80.0	60.1	70.1
	Burdwan	Burdwan	30.062	30.041	+0.021	NWly	32	82.6	26th "	57.5	2nd Dec.	80.0	60.1	70.1
SOUTH-WEST BENGAL.	Bankura	Bankura	29.795	30.060	+0.013	NWly	47	83.7	26th "	54.8	1st "	80.5	57.8	69.2
		Berhampore	30.032	30.051	+0.022	NWly	31	81.6	26th "	59.7	1st "	73.4	61.5	70.5
	Murshidabad	Sirajganj	30.032	30.050	+0.022	Calm	16	81.1	26th "	55.2	2nd "	80.0	58.7	69.4
NORTH BENGAL.	Pabna	Bogra	30.023	30.039	+0.058	Nly	30	81.3	26th "	53.2	2nd "	79.9	56.9	68.5
	Rajshahi	Rampur	30.012	30.034	+0.023	Calm & NWly	82	80.1	26th "	56.1	1st "	75.9	58.6	68.8
	Malda	Malda	30.015	30.053	—	NWly	52	80.3	26th "	53.9	1st "	78.9	57.3	68.1
NORTH BENGAL.	Dinajpur	Dinajpur	29.974	30.056	+0.032	Nly	32	81.1	26th "	57.4	2nd "	79.2	55.4	68.8
	Rangpur	Rangpur	29.978	30.061	+0.028	Nly	21	80.4	26th "	55.2	1st "	78.9	57.0	68.4
	Jalpaiguri	Jalpaiguri	29.827	30.077	+0.018	Nly	28	79.9	26 & 29 "	58.6	28 & 29 Nov.	78.6	40.1	57.2
NORTH BENGAL.	Kuch Bihar	Darjeeling	23.063	—	+0.014	NEly	82	53.0	28th "	38.3	1st Dec.	50.3	31.8	45.1
	Darjeeling	Gantong	18.043	—	—	SEly	48	42.3	26th "	19.6	29th Nov.	37.0	23.0	30.0
	Sikkim	Chittagong	29.998	30.030	+0.017	Nly	54	81.2	26th "	60.1	1 & 2 Dec.	80.1	61.7	71.0
EAST BENGAL.	Chittagong Hill Tracts		Observations not received.											
	Backergunge	Barisal	30.056	30.015	+0.042	Calm	37	81.3	26th Nov.	58.5	2nd "	79.9	60.7	70.3
	Noakhali	Noakhali	30.021	30.012	+0.055	NEly	61	80.5	26th "	57.0	2nd "	79.8	60.1	70.0
EAST BENGAL.	Faridpur	Faridpur	30.050	30.015	+0.045	Calm	13	80.5	26th "	59.5	2nd "	78.1	61.4	69.8
	Dacca	Dacca	30.056	30.024	+0.030	Nly	58	82.6	26th "	58.3	2nd "	81.1	62.4	71.8
	Tippera	Comilla	30.044	30.020	+0.041	Calm	27	81.6	26th "	57.0	2nd "	81.0	50.8	70.4
NORTH BENGAL.	Mymensingh	Mymensingh	30.020	30.033	+0.021	Calm & NE	33	79.9	26th "	57.0	2nd "	78.7	59.4	69.1
	Purnea	Purnea	29.980	30.065	+0.045	Calm & NE	10	79.2	26, 27 & 28 "	54.3	1st "	77.8	57.7	67.8
	Bhagalpur	Bhagalpur	29.934	30.055	+0.021	Calm	8	80.8	26th "	49.0	1st "	78.9	54.1	60.5
NORTH BENGAL.	Darbhanga	Darbhanga	29.944	30.062	+0.009	SWly	19	79.3	28th "	50.4	30th Nov. 1st Dec.	77.4	58.7	68.1
	Muzaffarpur	Muzaffarpur	29.954	30.075	—	WSW	35	78.7	26 to 29 "	52.3	30th Nov.	76.9	55.9	66.4
	Champaran	Motihari	29.867	30.070	+0.036	Calm & Wly	40	79.7	28th "	49.9	30th "	77.8	53.1	65.4
NORTH BENGAL.	Saran	Chhapra	29.931	30.072	+0.045	SWly	57	83.3	26th "	50.1	1st Dec.	77.6	54.6	66.1
	Shahabad	Dohri	29.759	30.082	+0.021	SWly	114	81.3	26th "	51.2	2nd "	78.1	57.2	66.7
	Shahabad	Buxar	29.873	30.079	+0.010	Wly	55	80.6	26th "	49.4	1st "	77.0	54.3	66.1
SOUTH BENGAL.	Gaya	Arrah	29.738	30.080	+0.023	Variable	112	82.8	26th "	50.8	2nd "	80.0	55.0	67.5
	Patna	Bankipore	29.928	30.075	+0.045	Wly	79	79.9	26th "	51.2	1st "	77.4	54.7	66.1
	Monrhyr	—	—	—	—	—	—	—	—	—	—	—	—	—
CHOTA NAGPUR.	Sonthal Parganas	Naya Dumka	29.703	30.066	+0.045	WNW	54	81.1	26th "	50.6	1st "	78.4	55.3	66.8
	Hazaribagh	Hazaribagh	28.940	30.071	+0.045	Wly	160	77.2	26th "	50.2	30th Nov.	74.0	51.8	62.0
	Dhanbad	Ranchi	27.916	30.061	+0.023	NWly	129	77.0	26th "	49.8	1st Dec.	74.2	53.3	63.3
CHOTA NAGPUR.	Palamanu	Daltonganj	—	—	—	—	—	—	—	—	—	—	—	—
	Singbhum	Chasabana	29.920	30.063	+0.011	Calm	7	84.5	26th "	53.7	2nd "	81.4	56.4	68.9
	Manbhum	—	—	—	—	—	—	—	—	—	—	—	—	—

\* Means for 6 days. † Mean of 5 days.

**Explanation.—Summary.**—The normal means of air pressure and temperature are the arithmetical average or means of the readings during the same period. The humidity of the atmosphere is expressed as percentage, saturated air being presented by 100. A clear sky is denoted by 0 and an overcast sky by 101. The normal mean of the numerical means or averages of the rainfall in that district determined from the returns sent in by the subdivisional station district, i.e., from total rainfall at the subdivisional stations in the district sending in returns divided by the number of stations. A rainy day is one of

for the week ending Saturday, the 2nd of December 1893.

DISTRICT OBSERVATIONS.																	DISTRICT.
Variation from normal mean.	Mean 8 A.M. temperature.	Average humidity at 8 A.M.	Average cloud amount at 8 A.M.	Rainfall of week at observing station.	OF WEEK.				RAINFALL.								
					Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Since 1st of month.			Since 16th October 1893.					
									Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.			
—	71.4	74	0.0	00.6	Nil	0.31	0.00	0.29	Nil	0.18	—0.18	6.83	0.81	+0.02	Puri.		
+2.5	70.1	80	0.0	Nil													
+1.2	69.7	80	1.3	Nil													
+1.5	69.1	71	0.0	Nil	Nil	0.12	0.00	0.15	Nil	0.08	0.08	4.20	4.33	—0.13	Outback.		
+1.4	65.2	84	0.4	Nil	Nil	0.00	0.00	0.15	Nil	0.01	—0.01	4.21	3.05	+1.16	Balasore.		
+1.6	66.5	64	0.0	Nil	Nil	0.02	0.00	0.04	Nil	Nil	0	3.32	3.33	—0.03	Midnapore.		
—0.2	65.9	79	0.0	Nil	Nil	0.02	0.00	0.06	Nil	Nil	0	2.44	3.24	—0.80	24-Parranas.		
+0.8	68.5	83	1.1	Nil													
					Nil	0.06	0.00	0.06	Nil	Nil	0	2.38	2.17	+0.21	Howrah.		
—0.4	66.6	79	1.3	Nil	Nil	0.03	0.00	0.09	Nil	Nil	0	2.85	2.30	+0.55	Hooghly.		
					Nil	0.02	0.00	0.05	Nil	Nil	0	1.47	2.11	—0.64	Nadia.		
—0.2	67.0	83	0.3	Nil	Nil	0.02	0.00	0.07	Nil	0.01	—0.01	2.19	3.15	—0.96	Khulna.		
+0.6	65.3	60	0.7	Nil	Nil	0.02	0.00	0.07	Nil	0.01	—0.01	0.95	2.57	—1.62	Jessore.		
P	63.1	60	0.0	Nil	Nil	0.03	0.00	0.05	Nil	0.02	—0.02	2.05	2.10	—0.05	Burdwan.		
—0.9	63.6	60	1.1	Nil	Nil	0.04	0.00	0.06	Nil	0.02	—0.02	2.25	2.21	+0.04	Bankura.		
+0.9	61.2	86	1.1	Nil	Nil	0.01	0.00	0.04	Nil	Nil	0	1.76	2.01	—0.25	Birbhum.		
					Nil	0.01	0.00	0.02	Nil	Nil	0	1.63	2.14	—0.51	Murshidabad.		
+0.5	65.2	93	0.3	Nil	Nil	0.02	0.00	0.08	Nil	Nil	0	3.17	2.51	+0.66	Pabna.		
—1.2	65.3	86	0.1	Nil	Nil	0.03	0.00	0.08	Nil	Nil	0	4.01	1.96	+2.05	Bogra.		
+1.4	68.5	81	0.1	Nil	Nil	Nil	0.00	0.00	Nil	Nil	0	2.73	1.77	+0.96	Rajshahi.		
—	61.7	85	0.0	Nil	Nil	0.02	0.00	0.06	Nil	Nil	0	3.13	1.60	+1.53	Malda.		
+1.4	64.3	88	0.0	Nil	Nil	0.02	0.00	0.08	Nil	Nil	0	2.81	1.42	+1.39	Dinajpur.		
+1.1	64.8	91	0.0	Nil	Nil	0.01	0.00	0.05	Nil	Nil	0	1.79	2.00	—0.20	Rangpur.		
+1.0	65.2	86	2.3	0.3	0.29	0.02	2.00	0.10	0.30	Nil	0.30	3.09	3.01	—0.08	Jalpaiguri.		
—0.7	44.4	80	6.6	0.16	0.52	0.04	0.75	0.15	0.52	Nil	+0.02	4.34	1.86	+2.48	Kuch Bihar.		
—	31.2	84	2.2	0.54	0.52	0.03	1.00	0.10	0.52	Nil	+0.32	5.87	2.71	+2.86	Darjeeling.		
—1.0	61.8	93	2.1	Nil	Nil	0.08	0.00	0.18	Nil	0.03	—0.03	6.14	4.97	+1.17	Guntong.		
					Nil	0.04	0.00	0.10	Nil	0.03	—0.03	5.31	4.17	+1.14	Chittakong.		
—0.3	60.2	82	0.4	Nil	Nil	0.02	0.00	0.07	Nil	0.01	—0.01	5.28	2.91	+2.37	Chittakong Hill		
—0.3	65.3	90	1.7	Nil	Nil	0.06	0.00	0.16	Nil	0.01	—0.01	—	4.32	—	Tracra.	Hockergunge.	
+0.5	67.6	85	0.4	Nil	Nil	0.03	0.00	0.03	Nil	0.01	—0.01	1.67	2.42	—0.75	Noakhali.		
0	67.4	88	2.1	Nil	Nil	0.02	0.00	0.06	Nil	Nil	0	3.00	2.74	+0.26	Faridpur.		
+0.3	65.1	86	0.9	Nil	Nil	0.04	0.00	0.03	Nil	0.01	—0.01	3.60	2.74	+0.86	Dacca.		
+0.5	65.7	90	2.1	Nil	Nil	0.02	0.00	0.08	Nil	Nil	0	3.72	2.77	+0.95	Tippura.		
+1.2	61.8	95	0.0	Nil	Nil	0.03	0.00	0.12	Nil	Nil	0	2.67	1.58	+1.09	Mymensingh.		
+0.8	62.6	77	0.9	Nil	Nil	0.05	0.00	0.15	Nil	Nil	0	2.51	1.43	+1.08	Purnea.		
0	62.0	86	0.1	Nil	Nil	0.03	0.00	0.08	Nil	Nil	0	6.03	1.00	+5.03	Bhagalpur.		
—	51.6	87	0.6	Nil	Nil	0.03	0.00	0.11	Nil	Nil	0	7.81	1.16	+6.65	Darbhanga.		
+0.3	60.7	86	0.0	Nil	Nil	Nil	0.00	0.03	Nil	Nil	0	8.69	0.50	+8.19	Muzaffarpur		
+0.1	62.7	77	0.0	Nil	Nil	0.10	0.00	0.18	Nil	Nil	0	5.86	0.99	+4.87	Champaran.		
+2.3	64.7	79	0.0	Nil											Saran.		
+0.1	63.6	71	0.0	Nil	Nil	0.11	0.00	0.18	Nil	Nil	0	6.25	1.33	+4.92	Shahabad.		
—0.6	60.5	79	0.0	Nil													
+1.6	63.2	66	1.4	Nil	Nil	0.10	0.00	0.28	Nil	Nil	0	2.63	1.01	+1.62	Gaya.		
0	62.4	72	0.0	Nil	Nil	0.09	0.00	0.19	Nil	Nil	0	4.44	1.38	+3.06	Patna.		
					Nil	0.08	0.00	0.23	Nil	Nil	0	1.71	1.51	+0.20	Monchyr.		
+0.1	63.1	74	0.0	Nil	Nil	0.05	0.00	0.19	Nil	Nil	0	2.44	1.68	+0.76	South Parganas.		
—0.6	60.3	64	0.0	Nil	Nil	0.11	0.00	0.29	Nil	Nil	0	3.57	1.46	+2.11	Hasaribagh.		
+0.8	61.5	61	0.1	Nil	Nil	0.21	0.00	0.34	Nil	0.01	—0.01	3.46	1.68	+1.78	Lohardaga.		
					Nil	0.15	1.0.09	0.25	Nil	Nil	0	2.34	1.41	+0.93	Palamau.		
+1.6	62.7	76	0.6	Nil	Nil	Nil	0.00	0.01	Nil	Nil	0	0.87	2.07	—1.20	Singhbhum.		
					Nil	0.02	0.00	0.05	Nil	0.01	—0.01	1.94	1.48	+0.46	Manbhum.		

for the last ten years. The variations are *negative* when the mean for the week is less than the corresponding normal mean, and *positive* when greater. The numbers denoting cloud amount represents the part of the sky covered the whole sky being denoted by 10. Under the head District observations of for the period in question during the past ten years. The means of the district are the numerical average of the rainfall returned received in the which at least a tenth of an inch fell.









**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL FOR THE WEEK ENDING 8 A.M., SATURDAY,  
THE 2ND OF DECEMBER 1893.**

THE meteorological changes during the week have been small and unimportant, and fine settled weather has prevailed in most districts during this period. During the previous week conditions in Bengal had been distinctly disturbed from the existence of two storms, the first of which had passed over North-Western India from the Arabian Sea, and the second which passed from the Bay of Bengal across the south of the Peninsula. At the close of that week the unsettled conditions were rapidly passing away, and fine north-east monsoon weather was establishing itself over the province. At the beginning of the present week therefore pressure was comparatively high over the province, though on the 26th it had fallen by small amounts; a fairly steady north-westerly and northerly wind current had established itself, and conditions were fairly normal, except that temperature was in excess, the excess being small at the eastern stations and increasing towards the west of the province where the mean temperature was  $4^{\circ}$  and  $5^{\circ}$  above the normal at many stations. On the 26th, however, both temperature and humidity had fallen by small amounts. On the 27th the changes were very similar to those on the 26th, and pressure had fallen slowly, while humidity was lower, and a rather rapid fall of temperature had occurred. On the 28th the barometric changes over north-eastern India were irregular, humidity had decidedly increased, while temperature had fallen. On the 29th a rather rapid fall of pressure had occurred, and pressure became in defect by amounts varying up to  $0.06''$  at the north-western stations. Temperature and humidity changes were decidedly irregular, and a rapid increase of cloud had taken place in and near the hills, and a few rain showers were reported in the Jalpaiguri and Darjeeling districts. On the 30th a rapid increase of pressure had occurred, the rise being largest in and near the hills, and the distribution of pressure had become distinctly irregular. The large changes on the 29th and 30th pointed clearly to the existence of disturbed conditions, particularly in and near the hills, and on the 30th moderate general rain was reported in the Jalpaiguri, Kuch Bihar and Darjeeling districts. Humidity increased considerably on the 30th, but temperature had generally fallen. A further rapid increase of pressure took place on the 1st December, and pressure became in excess by about a tenth of an inch, and the distribution over the province was more regular. Hence conditions improved in North Bengal, and weather became fine again over the whole province, while temperature also rapidly decreased and became generally below the normal. On the 2nd pressure had begun to fall, but it was still in excess. Temperature changes were also small, and at the majority of stations the mean temperature was nearly normal. Light northerly winds also prevailed over the whole province. Thus weather has been of north-east monsoon character throughout the week except in parts of North Bengal, where unsettled conditions prevailed on the 29th and 30th.

**Pressure.**—The mean pressure for the week has been in excess of the normal by from about  $0.02''$  to  $0.04''$ . This excess has been fairly equally distributed in all districts.

**Temperature.**—The mean temperature of the whole province for the week has again been in excess by about half a degree. The largest excess has been registered in Orissa, where it equals  $1.7^{\circ}$ .

The actual temperatures registered during the week and their variations from the usual temperature for the present season are most clearly seen in the table below, where the average maximum, minimum and mean temperatures for the week at nine typical stations in different districts of the province are compared with the normal values for the same period. The variations from the normal it will be seen have been small.

*Table showing the excess or defect of the actual mean temperature from the normal for the week ending Saturday, the 2nd of December 1893.*

	Normal mean maximum temperature for the week ending 2nd December.	Actual mean maximum temperature for the week ending 2nd December 1893.	Variation of actual mean from the normal.	Normal mean minimum temperature for the week ending 2nd December.	Actual mean minimum temperature for the week ending 2nd December 1893.	Variation of actual mean from the normal.	Normal mean daily temperature for the week ending 2nd December.	Actual mean daily temperature for the week ending 2nd December 1893.	Variation of actual mean from the normal.
Cuttack	83.8	81.0	+0.2	61.5	61.2	+0.27	72.7	74.1	+1.4
Calcutta	79.0	78.9	+0.1	60.5	60.1	+0.2	69.7	69.5	+0.2
Bacon	82.1	81.1	+1.0	61.6	62.4	+0.8	71.9	71.8	+0.1
Burdwan	80.6	80.6	0	60.1	60.2	+0.8	70.0	70.4	+0.4
Patna	77.5	77.4	0	54.7	54.7	0	66.1	66.1	0
Gaya	78.3	80.0	+1.7	53.1	55.0	+1.5	65.9	67.5	+1.6
Purum	79.0	77.8	+1.2	54.2	57.7	+3.5	66.6	67.8	+1.2
Hazaribagh	73.5	74.0	+0.5	52.5	51.8	-1.7	63.5	62.9	-0.6
Darjeeling	69.4	50.3	-2.1	39.1	39.8	+0.7	46.8	45.1	-0.7

• **Rainfall.**—The average rainfall in the Kuch Bihar and Darjeeling districts has equalled  $0.52$  inch, and in the Jalpaiguri district  $0.39$  inch. Elsewhere the whole province has been practically rainless.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 2nd of December 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.							RAINFALL.								
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.		Since 16th Oct. 1893.	
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.
Orissa ... ..	87.2	55.5	82.4	53.5	73.0	+1.7	Nil	0.16	-0.10	0.00	0.18	-0.18	Nil	0.08	5.45	4.21
South-West Bengal ... ..	85.5	52.8	80.4	50.8	70.1	+0.3	Nil	0.02	-0.02	0.00	0.05	-0.05	Nil	0.01	2.04	2.44
North Bengal ... ..	81.3	53.2	70.2	56.7	67.0	+0.7	0.10	0.02	+0.08	0.20	0.08	+0.12	Nil	Nil	3.05	1.87
East Bengal ... ..	82.0	57.0	70.8	60.8	70.3	0	Nil	0.03	-0.03	0.00	0.09	-0.09	Nil	0.01	4.17	3.17
North Bihar ... ..	80.8	49.0	77.7	55.7	66.7	+0.5	Nil	0.04	-0.04	0.00	0.11	-0.11	Nil	Nil	5.25	1.11
South Bihar ... ..	82.8	47.8	73.4	54.4	66.5	+0.6	Nil	0.08	-0.08	0.00	0.19	-0.19	Nil	Nil	3.56	1.43
Chota Nagpur ... ..	84.5	40.5	76.2	53.8	65.0	+0.3	Nil	0.11	-0.11	0.00	0.20	-0.20	Nil	Nil	3.21	1.30

METEOROLOGICAL OFFICE, BENGAL,  
The 5th December 1893.

A. PEDLER,  
Meteorological Reporter to the Govt. of Bengal

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 26th November to 2nd December 1893.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.				HYGROMETRY.					Rainfall, past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
November ...	26th ...	30.086	72.9	80.9	16.0	64.9	76.6	67.1	.588	61.0	59	Nil
" ...	27th ...	.074	69.9	79.9	20.0	59.9	74.6	66.4	.539	61.0	62	"
" ...	28th ...	.086	71.1	80.9	19.0	61.9	74.6	68.6	.620	65.1	72	"
" ...	29th ...	.042	70.4	80.4	21.0	59.9	75.1	66.6	.540	61.2	62	"
" ...	30th ...	.080	69.9	79.9	20.0	59.9	74.6	64.6	.476	57.6	56	"
December ...	1st ...	.144	68.7	78.9	20.5	58.4	74.0	65.0	.519	60.0	61	"
" ...	2nd ...	.100	68.4	78.9	21.0	57.9	72.0	64.6	.512	59.7	65	"

The mean 10 A.M. pressure of the seven days ... .. 30.086  
Inches.

The mean temperature of the seven days ... .. 70.2  
The extreme variation of temperature ... .. 23.0  
The maximum temperature ... .. 80.9  
The mean 10 A.M. relative humidity of the seven days ... .. 62  
%

The total fall of rain from 26th November to 2nd December 1893 ... .. Nil  
Inch.

The daily mean temperatures are the crude means of maximum and minimum temperatures.

METEOROLOGICAL OFFICE, INDIA,  
The 4th December 1893.

C. LITTLE,  
For Meteorological Reporter to the Govt. of India.

**Results of the Meteorological Observations taken at the Alipore Observatory from  
26th November to 2nd December 1893.**

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rdn.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
		°		Inches.	°	°	°	°	°	Inches.	°	%			Inches.	
Nov.	26th	135.5	9.3	30.026	71.3	79.7	15.2	64.5	64.9	0.531	60.6	71	NNW and calm ...	58	Nil	Day clear, night partially cloudy, <i>P.</i>
"	27th	134.0	9.3	.015	68.9	78.2	18.0	60.2	63.5	.517	59.8	71	NNW and calm...	34	"	Chiefly clear, <i>P.</i>
"	28th	136.5	8.0	.009	69.4	78.2	18.0	62.2	64.7	.550	61.6	78	NNW and calm ...	40	"	Chiefly clear, <i>P.</i>
"	29th	131.8	8.6	29.968	68.2	78.2	18.9	59.3	62.7	.499	58.8	74	NNW, WNW and calm.	29	"	Clear, <i>P.</i>
"	30th	131.5	9.4	30.009	67.3	78.2	19.5	58.7	62.1	.490	58.4	75	NNW and calm ...	14	"	Clear, <i>P.</i>
Dec.	1st	133.2	8.0	.079	67.5	77.7	20.5	57.2	61.5	.468	57.0	70	ENE and calm ...	21	"	Chiefly clear <i>P.</i>
"	2nd	129.5	9.3	.018	66.3	76.5	18.5	58.0	61.8	.493	58.5	76	WNW and calm	16	"	Chiefly clear, <i>P.</i>

The mean pressure of the seven days ...	...	...	...	...	Inches.
The average pressure of the corresponding period for 24 years, Surveyor-General's Office ...	...	...	...	...	30.002
The total number of hours of bright sunshine ...	...	...	...	...	Hours.
The maximum possible number of hours of sunshine ...	...	...	...	...	61.9
The mean temperature of the seven days ...	...	...	...	...	68.4
The average temperature of the corresponding period for 24 years, Surveyor-General's Office ...	...	...	...	...	71.1
The extreme variation of temperature ...	...	...	...	...	22.5
The maximum temperature ...	...	...	...	...	79.7
The highest velocity of the wind in one hour ...	...	...	...	...	Miles.
The highest pressure of wind on one square foot ...	...	...	...	...	10
The mean relative humidity ...	...	...	...	...	lbs.
The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office ...	...	...	...	...	?
The total fall of rain from 26th November to 2nd December 1893 ...	...	...	...	...	%
The average fall of the corresponding period for 24 years, Surveyor-General's Office ...	...	...	...	...	74
The total fall from 1st January to 2nd December 1893 ...	...	...	...	...	71
The average fall of the corresponding period for 24 years, Surveyor-General's Office ...	...	...	...	...	Inches.
The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.	...	...	...	...	Nil
The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.	...	...	...	...	0.01
The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.	...	...	...	...	85.23
The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.	...	...	...	...	65.16
The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.	...	...	...	...	
The mouth of the rain-gauge is one foot above the ground.	...	...	...	...	
<i>P.</i> , dew.	...	...	...	...	

## Vital Statistics of the Districts of Bengal for the month of October 1893.

Divisions.	Districts.	BIRTHS.										DEATHS.										REMARKS.									
		CHALITA.					SMALL-POX.					FEVER.					DYSENTERY AND DIARRHŒA.						OTHER CAUSES.					TOTAL OF ALL CAUSES.		AVERAGE OF CORRESPONDING MONTH OF PREVIOUS FIVE YEARS.	
		Number registered.	Ratio per 1,000 of annum.	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23									
Burdwan	Pardwan	1,891,853	4,577	59.56	32	24	6	0.4	2.9	24.96	6.1	4.8	27	1.2	823	7.4	5,405	33.00	2,858	21.96	Return not received up to date										
	Bakura	1,068,678	3,495	32.76	23	43	5	0.05	1.3	17.76	10	0.4	27	1.2	433	7.4	5,405	33.00	2,858	21.96	ditto.										
	Bahin	737,535	2,591	35.04	4	35	3	0.2	1.3	20.76	7	0.4	13	1.2	113	7.0	1,233	28.52	1,111	25.08	ditto.										
	Medinipur	1,070,111	3,858	42.96	189	2.04	1	0.1	2.9	35.00	338	3.72	41	4.8	772	8.52	4,813	48.00	2,371	26.64	ditto.										
Presidency	Howrah	2,834	3,597.2	12.1	101	1.66	1	0.1	1.14	18.96	212	4.80	12	0.6	407	7.20	2,035	33.84	1,331	23.04	ditto.										
	24 Parganas	1,244,108	9,152	66.96	569	6.60	...	...	5.88	49.80	33	0.2	1.3	7.2	901	7.20	8,881	64.80	4,322	30.60	ditto.										
	Nadia	1,250,446	6,107	55.56	64	5.76	...	...	4.91	45.60	21	1.2	5.6	4.8	553	5.28	6,001	57.48	3,120	29.88	ditto.										
	Murshidabad	1,551,825	6,015	53.52	80	7.2	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
Bajpahi	Dinajpur	1,303,826	5,343	64.60	515	4.68	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
	Bangladesh	2,163,401	8,904	57.12	16	0.9	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
	Bogura	817,404	2,865	43.80	5	5.72	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
	Barisal	1,399,192	7,111	69.22	1,094	7.72	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
Dacca	Patna	2,431,111	4,74	25.28	2	2.72	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
	Patna	2,431,111	4,74	25.28	2	2.72	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
	Patna	2,431,111	4,74	25.28	2	2.72	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
	Patna	2,431,111	4,74	25.28	2	2.72	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
Chittagong	Chittagong	1,000,000	3,431	46.52	388	4.44	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
	Chittagong	1,000,000	3,431	46.52	388	4.44	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
	Chittagong	1,000,000	3,431	46.52	388	4.44	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
	Chittagong	1,000,000	3,431	46.52	388	4.44	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
Patna	Shabab	2,038,301	11,528	69.56	54	7.2	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
	Shabab	2,038,301	11,528	69.56	54	7.2	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
	Shabab	2,038,301	11,528	69.56	54	7.2	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
	Shabab	2,038,301	11,528	69.56	54	7.2	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
Bhagalpur	Channaran	2,467,477	9,330	60.94	...	...	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
	Channaran	2,467,477	9,330	60.94	...	...	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
	Channaran	2,467,477	9,330	60.94	...	...	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
	Channaran	2,467,477	9,330	60.94	...	...	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
Orissa	Orissa	1,851,155	9,330	60.94	...	...	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
	Orissa	1,851,155	9,330	60.94	...	...	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
	Orissa	1,851,155	9,330	60.94	...	...	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
	Orissa	1,851,155	9,330	60.94	...	...	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
Chota pur.	Chota pur.	2,038,301	11,528	69.56	...	...	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
	Chota pur.	2,038,301	11,528	69.56	...	...	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
	Chota pur.	2,038,301	11,528	69.56	...	...	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
	Chota pur.	2,038,301	11,528	69.56	...	...	...	...	4.91	38.40	14	0.7	7.3	4.8	315	2.64	5,453	48.00	4,036	31.98	ditto.										
Total		62,778,653	294,165	40.40	10,538	5.72	341	0.6	101.23	28.80	3,882	7.9	3.26	4.8	32.38	6.12	211,433	40.20	132,341	25.20											
Average of corresponding month of previous five years		...	...	...	4,373	8.4	246	0.30	102.288	19.44	3,540	6.0	2.338	3.6	19.33	3.60	132,345	25.20	...	...											
Difference + or -		...	...	...	+15,020	+2.88	...	+0.3	+43.03	+9.36	+342	+1.2	+688	+1.2	+1,100	+9.32	+78,053	+15.00	...	...											

W. H. GREGG, Surgeon-Lieut.-Col., Dip. Publ. Health, Camb.,  
Sanitary Commissioner for Bengal.

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,  
The 2nd December 1893.

AVERAGE OF 1,000 WHO DIED DURING THE MONTH OF OCTOBER 1893.

DISTRICTS.	TOWNS.	Population under registra- tion.	BIRTHS.		DEATHS.										AVERAGE OF CORRESPONDING MONTH OF PRE- VIOUS FIVE YEARS.	REMARKS.						
			Number regis- tered.	Ratio per 1,000 of population.	CHOLERA.	SMALL-POX.	FEVER.	DYSSENTERY AND DIARRHEA.		ISTRY.	OTHER CAUSES.		TOTAL OF ALL CAUSES.									
								Number regis- tered.	Ratio per 1,000 of population.		Number regis- tered.	Ratio per 1,000 of population.		Number regis- tered.			Ratio per 1,000 of population.					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Burdwan	...	34,477	70	24.56	1	24	...	...	...	57	33.72	8	9.76	1	24	18	6.94	125	43.44	79	27.48	Return not received up to date.
Bidnapore	...	89,000	...	57.69	5	19.92	...	...	...	118	46.34	...	...	...	...	...	...	...	111	40.90		
Hoochly	...	82,922	165	55.04	34	11.98	...	...	...	103	47.61	64	22.92	...	59	6.79	103	20.68	137	47.29		
Howrah	...	110,000	262	20.76	35	5.60	...	...	...	98	10.08	50	6.00	...	59	6.00	...	255	26.62	138	20.28	
24-Parganas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Ditto ditto.	
Nadia	...	85,700	61	50.96	5	2.28	...	...	...	...	...	2	8.4	...	...	...	...	...	...	...		
Marshallabad	...	80,437	9	37.80	32	16.68	...	...	...	162	54.66	6	1.92	...	...	...	...	...	...	...		
Rajshahi	...	29,515	54	27.09	20	38.76	...	...	...	...	...	5.48	...	...	...	...	...	...	...	...		
Pabna	...	21,407	61	55.64	1	1.08	...	...	...	22	20.94	...	...	...	...	...	...	...	...	...		
Dacca	...	83,683	23	53.96	1.3	55.04	...	...	...	117	61.68	51	4.44	...	...	...	...	...	...	...		
Chittagong	...	24,049	24	16.92	3	2.40	...	...	...	34	16.92	3	4.44	...	...	...	...	...	...	...		
Patna	...	185,102	642	59.36	1.3	7.44	...	...	...	23	20.52	84	6.00	...	...	...	...	...	...	...		
Cuttack	...	47,723	...	58.08	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Shyambad	...	15,411	...	42.56	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Muzaffarpur	...	8,251	...	31.92	...	9.48	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Dumkani	...	4,211	...	31.92	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Dumkani	...	22,711	...	40.64	...	4.08	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Dumkani	...	61,157	...	41.72	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Dumkani	...	75,302	...	53.16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Dumkani	...	22,780	...	33.98	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Dumkani	...	37,077	...	44.88	...	9.36	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Dumkani	...	6,169	...	42.84	...	9.72	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Dumkani	...	47,140	...	28.92	...	4.60	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Dumkani	...	28,754	...	14.16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Dumkani	...	20,775	...	21.84	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Dumkani	...	20,392	...	53.40	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Total	...	1,362,150	3,922	54.44	96	8.64	2	61	...	2,900	25.44	505	4.44	54	1.04	9.00	5,181	48.24	3,474	37.00		
Average of the corre- sponding month of previous five years.		...	Complete Average figures of 15 years are not available.	...	38	3.49	11	69	...	1,435	19.72	32	3.06	53	5.56	6.96	3,071	27.00	...	...		
Difference + or -		...	...	...	-68	-5.52	-9	-08	...	+1,445	-19.72	+113	+1.08	+11	+1.19	+2.04	+2,807	+21.24	...	...		

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,  
The 2nd Dec. mb r 1893.  
W. H. GREGG, Surgeon-Lieut.-Col., Dip. Publ. Health, Camb.,  
Sanitary Commissioner for Bengal.

Supplementary Vital Statistics of Districts and of Towns in Bengal for September 1893 received too late for publication with the figures of that month on the 4th November 1893.

Divisions.	Districts.	Population under registration.	BIRTHS.										DEATHS.										AVERAGE OF CORRESPONDING MONTH OF PREVIOUS FIVE YEARS.	
			Number registered.	Ratio per 1,000 of population.	CHOLERA.		SMALL-POX.		FEVER.	DYSENTERY AND DIARRHÆA.		INJURY.	OTHER CAUSES.		TOTAL OF ALL CAUSES.	Ratio per 1,000 of population.	Number registered.							
					Number registered.	Ratio per 1,000 of population.	Number registered.	Ratio per 1,000 of population.		Number registered.	Ratio per 1,000 of population.		Number registered.	Ratio per 1,000 of population.				Number registered.	Ratio per 1,000 of population.					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21				
Presidency.	21-Parganas	1,092,003	4,008	93.52	28	.12	4	.02	2,885	15.72	11.4	.72	127	.72	4.0	2.52	3,071	19.44	2,045	19.60				
	Rajshahi	68,372	2,908	37.56	3	.02	...	.12	1,149	20.48	4.3	.72	13	.72	77	1.32	1,223	23.26	1,836	23.52				
	Bhagalpur	1,724,196	5,100	53.28	4	.02	20	.12	2,244	16.12	13	.08	43	.08	230	1.68	2,533	17.40	2,030	17.48				
	T-412	4,777,481	11,515	31.08	34	.08	24	.06	5,801	16.08	16.0	.56	182	.48	7.6	2.04	6,846	19.20	6,912	19.08				
	Total for the Province	7,038,383	18,704	31.08	42	.12	40	.07	11,220	17.40	11.0	.48	301	.60	23.3	3.84	137,953	23.40	140,313	23.88				
	Average of corresponding month of previous five years.		No available, as birth registered in rural areas was only introduced from 1872.		6,238	.96	450	.01	104,024	17.88	4.137	.60	3,729	.69	27,634	3.48	110,212	23.88	...	...				
	Difference + or -		...	...	-1,073	-.24	-20	Equal	-9,805	-.48	-.876	-.12	+154	Equal	+5,381	+3.6	-2,629	-.48	...	...				
Districts.	Towns.																							
	1 Cossimbazar	31,423	48	18.24	2	.72	...	...	24	9.12	11	4.20	...	...	6	1.80	42	15.96	65	24.72				
	2 Bankura	32,875	20	10.36	1	.36	...	...	27	9.84	2	.72	...	...	3	1.08	33	12.00	39	16.56				
	3 Baranagar	34,273	15	20.28	...	...	...	...	4	1.32	...	.72	...	...	...	...	4	1.32	44	30.72				
	4 South Suburban	49,442	131	22.56	1	.12	1	.12	28	4.44	11	1.80	1	.12	17	2.88	37	9.72	74	12.72				
	5 Khorda or South Barrack-pore.	32,547	21	6.96	1	.24	...	...	5	17.76	6	1.92	...	...	3	.96	65	21.84	50	16.80				
	6 Nadiati	24,724	72	29.04	...	...	...	...	64	25.80	11	3.96	...	...	1	.36	75	30.24	49	19.68				
7 Nawabganj or North Barrack-pore.	20,080	41	25.40	...	1.08	...	...	51	80.24	21	12.00	...	...	11	6.24	87	40.68	52	29.64					
	Total	254,330	490	18.84	7	.24	1	.03	271	11.76	61	2.76	3	.12	40	1.60	383	17.04	417	19.56				
	Total of all towns with a population of 20,000 and over.	1,649,273	3,333	28.68	23	2.04	5	.03	2,316	17.04	234	3.44	79	.48	1,000	7.20	4,533	30.84	3,631	26.52				
	Average of corresponding month of previous five years.		Complete average figures of past five years are not available.		523	3.72	9	.06	1,677	12.12	417	3.00	68	.48	955	6.84	3,631	26.52	...	...				
	Difference + or -		...	...	-236	-1.68	-4	-.03	+659	+4.92	+117	+.84	+11	Equal	+45	+3.6	+692	+4.39	...	...				

OFFICE OF SANY. COMM. FOR BENGAL,  
The 2nd December 1893.

W. H. GREGG, Surgn.-Lieut.-Col., Dip. Publ. Health, Camb.,  
Sanitary Commissioner for Bengal.



## CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 2nd December 1893, as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 2ND DECEMBER 1893.			WEEK ENDING SATURDAY, THE 2ND DECEMBER 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ... ..	291	24,125	310	498	42,865	644
Jute ... ..	284	1,44,600	2,396	410	2,05,050	3,498
Firewood ... ..	186	76,800	1,117	116	57, 25	854
Other articles ... ..	1,009	1,96,825	3,391	996	2,32,050	3,675
Total ... ..	1,720	4,42,250	7,214	1,990	5,37,690	8,671

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

*Approximate Return of Traffic for week ended 25th November 1893, on 1,610½ miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchan- dise.	Total.
Total traffic for the week ... ..	*314,940	Rs. A. P. *3,40,963 5 0	Mds. S. 24,23,144 30	Rs. A. P. 6,37,703 13 0	Rs. A. P. 15,554 12 0	Rs. A. P. 10,03,811 14 0	77,178	101,982	179,110
per mile of railway ... ..	.....	217 4 10	.....	396 0 4	9 10 6	622 15 8	.....	.....	.....
or previous 20½ weeks of half-year ... ..	5,673,594	61,70,373 4 0	4,51,60,038 30	1,07,16,740 12 0	3,06,778 6 0	1,71,03,802 6 0	1,540,800½	1,970,094½	3,510,894½
Total for 21½ weeks ... ..	5,988,534	64,20,336 9 0	5,05,89,183 20	1,13,54,531 9 0	3,22,333 2 0	1,81,97,204 4 0	1,617,978½	2,072,028½	3,690,006½
COMPARISON.									
Total for corresponding week of previous year ... ..	203,615½	3,30,712 14 1	28,39,534 20	7,09,780 10 8	18,967 10 9	10,59,401 3 6	74,997	108,415	183,412
per mile of railway corresponding week of previous year ... ..	.....	205 5 7	.....	440 11 6	11 12 5	657 13 6	.....	.....	.....
Total for corresponding 21½ weeks of previous year ... ..	5,565,780½	59,30,631 0 5	4,96,02,339 0	1,11,53,482 6 0	3,53,648 13 2	1,74,37,702 4 4	1,589,584	1,931,336	3,570,920

\* The increase is due to running of troop extra trains, Sonapur fair, bathing festival and "Rash Poornima."

## TARKESSUR BRANCH RAILWAY.

*Approximate Return of Traffic for week ended 25th November 1893, on 22½ miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchan- dise.	Total.
Total traffic for the week ... ..	*22,313	Rs. A. P. *5,585 1 0	Mds. S. 13,305 0	Rs. A. P. 553 10 0	Rs. A. P. 11 0 0	Rs. A. P. 6,149 11 0	916	53	969
per mile of railway ... ..	.....	251 0 8	.....	24 14 1	0 7 11	276 6 3	.....	.....	.....
or previous 20½ weeks of half-year ... ..	†351,409	†65,798 13 0	†1,83,012 10	†0,161 7 0	†367 0 0	†23,327 4 0	18,042	1,524½	19,566½
Total for 21½ weeks ... ..	373,722	91,383 14 0	1,97,217 10	6,715 1 0	378 0 0	98,475 15 0	18,958	1,576½	20,534½
COMPARISON.									
Total for corresponding week of previous year ... ..	19,451	4,854 13 0	10,293 20	543 13 0	13 1 0	5,411 11 0	883	101	984
per mile of railway corresponding week of previous year ... ..	.....	218 3 1	.....	24 7 1	0 9 5	243 3 7	.....	.....	.....
Total for corresponding 21½ weeks of previous year ... ..	403,002½	99,172 10 7	1,52,171 30	6,838 7 0	273 13 6	1,06,284 15 1	19,160	1,521	20,681

\* The increase is due to "Rash Poornima" and bathing festival.

† Deducted number of passengers 1,745 and Rs. 273½

Added mounds 2,253 and " 61½ on account of difference between the approximate and audited figures for the week ended 14th October 1893.

DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for week ended 25th November 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs.   A. P.	Mds.   s.	Rs.   A. P.	Rs   A. P.	Rs   A. P.			
Total traffic for the week	*19,209	*14,960   7   0	64,853   30	9,710   3   0	50   0   0	24,720   10   0	5,703	8,339	9,042
Or per mile of railway	.....	92   11   1	.....	60   2   7	0   4   11	153   2   7	.....	.....	.....
For previous 20½ weeks of half-year	†403,052	†3,01,907   7   0	†12,32,637   30	†1,59,314   15   0	§817   0   0	4,62,039   6   0	†25,516	58,076½	183,592½
Total for 21½ weeks	422,161	3,16,867   14   0	12,97,491   20	1,69,025   2   0	807   0   0	4,86,760   0   0	13,219	61,415½	192,634½
COMPARISON.									
Total for corresponding week of previous year	16,483	11,885   5   1	45,531   20	7,894   10   0	54   15   0	19,834   14   1	5,683	3,046	8,629
Per mile of railway corresponding week of previous year	.....	73   10   3	.....	48   14   7	0   5   5	122   14   3	.....	.....	.....
Total for corresponding 21½ weeks of previous year	361,920	2,81,199   12   7	9,12,774   10	1,51,980   0   6	2,134   6   3	4,35,314   3   4	137,207	53,350	190,617

\* The increase is due to "Kash Poorana" and bathing festival.  
† Added number of passengers 10,837 and Rs. 3,983  
‡ Do. maunds 53,486 and .. 1,627½ on account of difference between the approximate and audited figures for the week ended 14th October 1893.  
§ Do. .. .. 35

EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. P., DACCA, K. D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for the week ended 25th November 1893, on 778 miles open.

	COACHING TRAFFIC.			MERCHANDISE AND MINERAL TRAFFIC.			Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.	Other earnings.	Total earnings.			Coaching.	Merchandise.	Total.
Total traffic for the week	197,610	Rs. 1,05,490 0 0	Mrs. 8,43,780 0	Rs. 1,82,180 0 0	Rs. 27,790 0 0	Rs. 3,15,460 0 0	28,191	35,000	64,694		
Or per mile of railway	254	135 0 0	1,084 0	234 0 0	413 0 0	4393 0 0	...	...	...		
For previous 20 weeks of half-year*	3,309,814	15,30,360 0 0	1,74,83,273 0	35,41,223 0 0	3,45,427 0 0	54,17,010 0 0	566,954	715,604	1,282,618		
Total for 21 weeks	3,507,454	16,35,850 0 0	1,83,27,043 0	37,23,403 0 0	3,73,217 0 0	57,32,470 0 0	695,148	751,604	1,346,712		
COMPARISON.											
Total for corresponding week of previous year	162,523	84,121 0 0	9,92,064 0	2,31,396 0 0	35,641 0 0	3,51,158 0 0	27,462	45,431	72,893		
Per mile of railway corresponding week of previous year	209	108 0 0	1,277 0	298 0 0	415 0 0	4421 0 0	...	...	...		
Total to corresponding date of previous year	3,373,061	15,08,726 0 0	1,58,78,596 0	38,21,345 0 0	3,91,972 0 0	57,26,043 0 0	578,101	813,671	1,391,772		

\* Audited up to week ending 30th September 1893.  
† Excluding steamer earnings

BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for the week ended 25th November 1893, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	39,180	13,800 0 0	41,870 0	2,610 0 0	140 0 0	16,550 0 0	3,678	1,984	5,672
Or per mile of railway	313	110 0 0	335 0	21 0 0	1 0 0	132 0 0	.....	.....	.....
For previous 20 weeks of half-year* ... ..	618,778	2,06,444 0 0	11,98,163 0	90,271 0 0	3,021 0 0	2,09,739 0 0	74,201	40,206	114,407
Total for 21 weeks ...	657,958	2,20,244 0 0	11,40,973 0	92,881 0 0	3,161 0 0	3,10,396 0 0	77,879	42,200	120,169
COMPARISON.									
Total for corresponding week of previous year ... ..	29,127	11,602 0 0	61,181 0	5,311 0 0	140 0 0	17,062 0 0	3,755	2,125	5,880
Per mile of railway corresponding week of previous year ... ..	133	93 0 0	489 0	42 0 0	1 0 0	136 0 0	.....	.....	.....
Total to corresponding date of previous year ... ..	644,308	2,16,428 0 0	11,76,634 0	94,684 0 0	3,756 0 0	3,18,868 0 0	78,261	42,030	123,291

\* Audited up to week ending 30th September 1893.

## DACCA STATE RAILWAY.

*Approximate Return of Traffic for the week ended 25th November 1893, on 86 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	20,120	7,530 0 0	41,870 0	4,200 0 0	120 0 0	11,010 0 0	2,487	1,241	3,728
Or per mile of railway ...	234	88 0 0	622 0	49 0 0	1 0 0	138 0 0	...	...	...
For previous 20 weeks of half-year ...	347,377	1,20,267 0 0	7,03,133 0	56,119 0 0	3,401 0 0	1,79,787 0 0	50,514	21,968	72,482
Total for 21 weeks ...	367,497	1,27,857 0 0	7,48,003 0	60,319 0 0	3,521 0 0	1,91,097 0 0	53,001	23,209	76,210
COMPARISON.									
Total for corresponding week of previous year ...	19,551	6,510 0 0	31,239 0	2,883 0 0	303 0 0	9,816 0 0	2,487	737	3,224
For mile of railway corresponding week of previous year ...	228	76 0 0	363 0	33 0 0	5 0 0	114 0 0	...	...	...
Total to corresponding date of previous year ...	359,724	1,14,141 0 0	5,22,019 0	45,084 0 0	3,620 0 0	1,64,154 0 0	53,714	13,935	69,649

\* Audited up to week ending 30th September 1893.

## BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIRHUT STATE RAILWAY.)

*Approximate Return of Traffic for the week ending 25th November 1893, on 756 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs.	Mds.	Rs.	Rs.	Rs.			
Total traffic for the period on 756 miles open ...	171,369	6,071,619	2,07,890	31,559	13,980	1,95,140	15,461	14,169	29,630
Or per mile of railway ...	226 67	98 63	271 99	41 35	18 19	256 53	...	...	...
For previous 20 weeks of half-year (b) ...	1,771,805	6,95,216	49,85,026	6,17,188	1,51,018	15,23,152	307,581	279,150	579,731
Total for 21 weeks ...	1,943,165	7,63,856	51,92,916	6,58,758	1,94,998	16,18,592	323,042	296,340	609,391
COMPARISON.									
Total for corresponding period of previous year on 755 miles open	84,450	37,066	3,41,660	18,314	11,974	90,454	12,512	17,006	29,518
For mile of corresponding week of previous year ...	111 85	49 09	452 53	65 00	14 67	127 75	...	...	...
Total to corresponding date of previous year ...	1,925,782	7,63,506	50,13,039	7,53,160	2,09,235	17,19,991	291,805	323,217	615,022

(a) Increase in coaching traffic is due to fares held at Sonpur and Ajodhya.

(b) Includes audited figures up to 14th October 1893.

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

	Rs.	A.	P.
Approximate earnings for the week ending 18th November 1893 ...	13,028	0	0
Corresponding period of 1892 ...	12,773	0	0
Increase ...	255	0	0
Receipts per mile for the week ending 18th November 1893 ...	255	7	3
Corresponding period of 1892 ...	250	7	3
Increase ...	5	0	0
Receipts from 1st July to 18th November 1893 ...	2,47,114	0	0
Corresponding period of 1892 ...	2,51,613	0	0
Decrease ...	4,499	0	0

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

	Rs.	A.	P.
Approximate earnings for the week ending 25th November 1893 ...	14,028	0	0
Corresponding period of 1892 ...	10,665	0	0
Increase ...	3,363	0	0
Receipts per mile for the week ending 25th November 1893 ...	275	0	11
Corresponding period of 1892 ...	209	2	0
Increase ...	65	11	11
Receipts from 1st July to 25th November 1893 ...	2,61,142	0	0
Corresponding period of 1892 ...	2,62,279	0	0
Decrease ...	1,137	0	0





SUPPLEMENT TO  
**The Calcutta Gazette.**

WEDNESDAY, DECEMBER 13, 1893.

OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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## REPORT OF THE WINTER RICE CROP, 1893.

**THE following is published for general information.**

REVENUE DEPT.,  
The 11th December, 1893.

C. E. BUCKLAND,  
Secy. to the Govt. of Bengal.

DEPARTMENT OF LAND RECORDS AND AGRICULTURE, BENGAL.

*Final report on the winter rice crop of Bengal, 1893.*

1. *Character of the Season.*—The character of the season up to the middle of September last was described in the summary of the district returns given in the preliminary forecast issued on the 4th October 1893. Up to that time the season, although characterized by excessive rainfall, proved favourable on the whole to the winter rice crop, except in certain limited areas, where the crop could not be sown or transplanted on account of excessive accumulation of water or was damaged by floods. Since the middle of September, the distribution of rainfall has been exceedingly favourable to the winter rice crop, and prospects have generally improved. From 26 out of the 46 districts a better outturn of

the crop is now reported than was reported in the preliminary forecasts. Fourteen District officers have maintained and only six\* have reduced their preliminary estimates. In three out of the six last mentioned districts namely Darbhanga, Muzaffarpur and Champaran, the crop appears to have been damaged by the recurrence of flood in October.

\* Darbhanga. | Muzaffarpur.  
Champaran. | Cuttack.  
Hazariabagh. | Singhbhum.

2. *Area cultivated.*—The district estimates of area cultivated with winter rice in the current and the last year, as reported in the preliminary forecasts, remain unaltered with a few minor exceptions. The total area in Bengal cultivated with winter rice this year appears from the district returns appended hereto to be 30,570,388 acres, against 29,881,460 acres estimated to have been cropped last year (or 30,172,678 acres as returned for the year 1892 in this Department's note, dated the 15th November 1892).

3. *Character of the crop.*—It will be seen on reference to the district returns that 21 out of the 46 districts have reported a full average (16 annas) or more than a full average crop, 16 have reported the crop to vary from 12 to 16 annas, and 9 from 9 to 12 annas. No district, as a whole, returns less than a 9 anna crop, although there are a few subdivisions where the crop has been estimated at 8 annas or less in consequence of the injury caused by excessive rainfall and floods. Thirty-one out of the 46 districts have reported this year's crop to be better than last year's; two have reported the crop to be equal to that of the last year, and only 13 have reported worse crops. This year's crop may, therefore, be taken to be better than the crop of 1892. For Bengal as a whole the winter rice crop of 1892 was estimated in the final report on that crop at about 14 annas; the crop of 1893 may be estimated at fully 16 annas, or about 2 annas in excess of the last year's crop.

4. *Gross outturn.*—The outturn in cwts has been obtained in rough fashion for the whole province by multiplying the total area cultivated by 15 maunds, or 1,230 lbs., which has been assumed to be the average yield of clean rice to the acre in the case of the winter rice crop. An attempt was made to obtain from district officers estimates in cwt. of the outturn of the crop, based on such rates of yield as they might think proper to adopt whether with reference to the estimates made in this office letter No. 291T., dated 14th June 1892 (addressed to the Government of Bengal) or to other reliable sources of information. On the whole, however, it has been thought best in the present note to omit the district figures. It is not clear whether in forming their estimates, district officers have taken into account the yield of winter rice only or also the yield of the early rice crop, and the figures representing yield of rice must be further elucidated before particular estimates for each district are substituted for the rough estimate for these provinces hitherto adopted.

B. C. BASU,

*Asst. to Director of Land Records  
and Agriculture, Bengal.*

W. C. MACPHERSON,

*Offg. Director of Land Records and  
Agriculture, Bengal.*

(CALCUTTA,  
The 6th December 1893.



DISTRICT AND SUBDIVISION.	ACREAGE.			OUTTURN IN CWT.								Percentage by which column 9 exceeds (+) or falls short of (-) outturn in			Remarks by the District Officer.	Remarks by the Department of Land Records and Agriculture, Bengal.
	Of current year's crop.	Of previous year's crop.	Normal.	Column 3.	Column 4.	Taking 18 acres to represent the average outturn per acre, how many units will represent this year's outturn (1893)?	Taking 16 acres to represent the average outturn per acre, how many units represent this year's outturn (1892)?	Estimated yield of current year, i.e., of area in col. 2.	Yield of area in column 2 at full standard rate.	Yield of previous year, i.e., of area in column 3.	Normal.	Column 10.	Column 11.	Column 12.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<b>Birbhum.</b>																
Sadar	176,000	176,000	176,000	.....	.....	18	14	.....	.....	.....	.....	.....	.....	.....	.....	The prospects continue very favourable and the state of the crop is good. There appears nothing for the present to change the estimate previously made.
Bampur Hat ..	103,000	103,000	103,000	.....	.....	18	16	.....	.....	.....	.....	.....	.....	.....	.....	
District Total.	279,000	279,000	279,000	.....	.....	18	16	.....	.....	.....	.....	.....	.....	.....	.....	
<b>Midnapore.</b>																
Sadar	612,100	539,400	839,900	.....	.....	18	8	.....	.....	.....	.....	.....	.....	.....	.....	The reasons stated in the preliminary forecasts stand good for the better outturn.
Tamluk	263,100	256,500	264,400	.....	.....	14	10	.....	.....	.....	.....	.....	.....	.....	.....	
Contai	323,340	382,200	412,000	.....	.....	14	8	.....	.....	.....	.....	.....	.....	.....	.....	
Ghatal	119,160	101,750	131,500	.....	.....	14	6	.....	.....	.....	.....	.....	.....	.....	.....	
District Total..	1,260,000	1,260,000	1,622,600	+ 430	- 22 28	15	9	.....	.....	.....	.....	.....	.....	.....	.....	

The prospects continue very favourable, and the state of the crop is good. There appears nothing for the present to change the estimate previously made.

The reasons stated in the preliminary forecasts stand good for the better outturn.











<i>Murahidabad.</i>											
Sadar	62,257	62,048	62,048	18	10						The crops this year will be most excellent. Only in some low lying places excessive rainfall has prevented sowing or transplanting.
Randi	189,810	188,000	188,010	18	10						
Jangipur	42,320	40,320	40,320	10	6						
District Total	314,187	310,368	312,378	+32	17	9					
<i>Dinajpur.</i>											
Sadar	1,090,400	1,090,400	1,090,406	29	29						The increase in the out-turn is due to the proper distribution of rain.
Thasgaon	218,100	218,100	218,100	20	16						
District Total	1,308,500	1,308,500	1,308,506	21	18						
<i>Rajshahi.</i>											
Sadar	199,900	190,570	190,594	18	18						The decrease in the out-turn of this year's crop as well as in the area sown this year is compared with the last year is due to the heavy rain which has stood in the way of agricultural operations and killed the plants that were germinating.
Rator	189,717	248,750	210,285	12	14						
Naugaon	223,525	244,370	244,339	18	20						
District Total	613,142	674,690	625,218	-595	76	18					
<i>Raopur.</i>											
Sadar	635,100	865,100	925,100	18	16						The winter rice crop this year is excellent.
Raipur	267,700	231,500	231,500	18	10						
Chandpur	181,000	251,000	251,000	18	15						
Nalanda	105,000	114,400	128,000	18	14						
District Total	987,700	957,000	974,000	+21	18	13					

District and S.B. Division.	Average.			Outturn in Cwt.									Percentage by which column 3 exceeds (+) or falls short of (-) culturn in			Remarks by the Department of Land Revenue and Agriculture, Ben- gal.
	(Of current year's crop.	(Of previous year's crop.	Normal.	Column 3.	Column 4.	Percentage by which column 3 exceeds (+) or falls short of (-) area in			Outturn in Cwt.			Column 10.	Column 11.	Column 12.		
						(+)	(-)	(-)	Estimated yield of current year, i.e., of acre in column 2.	Yield of area in column 2 at full standard rate.	Yield of previous year, i.e., of area in column 2.					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Bogra.																
Whole district	290,000	290,000	290,000	...	+3.57	18	13	.	...	...	...	...	...	...	In the central and western portions of the district the aman crop is better than what has been for several years. In the eastern part the outturn will not be good, but taking the district as a whole, I estimate the outturn at fully 18 annas.	
Pabna.																
Sadar	403,000	384,000	255,900	...	...	16	12	...	...	...	...	...	...	...	Very high price of rice induced cultivators to sow more paddy this year. In addition and flood have both been favourable to the crop. The outturn for Siragauj should be 18 annas, and not 15 annas as previously shown.	
Siragauj	216,200	209,200	153,700	...	...	18	14	...	...	...	...	...	...	...	The outturn at Sadar.	

District Total	624,290	593,200	408,900	+5-22	+32-35	17	13
<i>Darjeeling.</i>							
Sadar, including Kalimpong.	11,500	11,500	10,200			14	13
Kurseong	57,800	57,000	57,800			16	16
Siliguri							
District Total	69,100	68,500	67,900	+5-7	+1-91	15	15
<i>Jalpaiguri.</i>							
Sadar	324,400	316,900	339,500			15	13
Alipore	193,700	195,000	250,200			16	13
District Total	518,100	511,900	589,700	-10-45	-10-82	17	13
<i>Dacca.</i>							
Sadar	243,100	270,100	270,100			12	14
Manikganj	178,900	202,200	202,200			12	12
Munshiganj	62,000	64,000	51,200			12	12
Narainganj	68,000	67,200	71,400			11	12
District Total	552,000	503,500	594,900	-8-85	-7-39	12	14

1	ACREAGE.			OUTPUT IN CWT.							Percentage by which column 9 exceeds (+) or falls short of (-) output in			Remarks by the District Officer on this year's crop.	Remarks by the Department of Land Records and Agriculture, Bengal.		
	Of current year's crop.	Of previous year's crop.	Normal.	Percentage by which column 2 exceeds (+) or falls short of (-) area in			Taking 10 bushels to represent the average output per acre in any year will represent 13 years' output (1902) ?	Taking 10 bushels to represent the average output per acre in any year (1902) ?	Estimated yield of current year, i.e., of acre in column 2.	Yield of area in column 2 at full standard rate.	Yield of previous year, i.e., of area in column 2.	Normal.	Column 10.			Column 11.	Column 12.
				Column 3.	Column 4.	Column 5.	Column 6.	Column 7.	Column 8.	Column 9.	Column 10.	Column 11.	Column 12.				
For J. P. P.																	
Sadar ..	216,700	210,000	283,000					11	14								
Maharpar ..	320,000	320,000	320,000					64	12								
Goalundo ..	137,000	137,000	137,000					10	10								
District Total...	673,700	667,000	740,000	-3.34	-9.63	9	14										
Backergunge.																	
Sadar ..	956,000	956,000	956,000					14	14								
Patakhali ..	244,000	244,000	244,000					16	16								
Pranpur ..	536,800	536,800	536,800					12	15								
Bhola ..	1,00,000	100,000	100,000					12	12								
District Total...	1,836,800	1,836,800	1,836,800														

S. P. P. sub-division. The 11-estimate for the prospects have some, what in proved owing to favourable weather. In fact where there are plants the ears have filled very well. A little damage has been done by *briskaka*, chiefly in Goalundo sub-division.

Current year's average output shown in the preliminary forecast is on special enquiry found much below the actuals. The correct output is shown in this forecast. The excessive rainfall early in the season did not prevent the normal area from being sown, but excessive rainfall and floods destroyed the crops over some 61,000 acres viz., 51,200 acres of Sadar







<p><i>Patna.</i></p>									
Sadar	109,600	108,000	{ 267,500	.....	{ 144	12½	.....	.....	.....
Barh	75,540	73,840		.....	{ 18	10	.....	.....	.....
Bihar	223,300	223,280		.....	{ 16	14	.....	.....	.....
Dinapore	32,000	32,000		.....	{ 15	13	.....	.....	.....
District Total	442,440	440,480	267,500	- 43	13½	12			
<p><i>Gaya.</i></p>									
Sadar	500,000	500,000	500,000	.....	13	12	.....	.....	.....
Nawada	370,000	360,000	360,000	.....	14	13	.....	.....	.....
Jaunabad	210,000	208,000	208,000	.....	14	13	.....	.....	.....
Aurangabad	218,000	215,000	215,000	.....	15	14	.....	.....	.....
District Total	1,298,000	1,244,000	1,255,700	+ 434	18	18			

In the Sadar sub-division seasonal rain, after the sub-division of the area, has been estimated, improved the conditions of the crop. Hence the increase. The rainfall in the Barh sub-division was both ample and timely, resulting in increased outturn, which has done much to make up the deficiency of the bhadi crops. The rainfall in the Bihar sub-division was favourable throughout. Since the sub-division of the area, the forecast of the rainfall in the Dinapore sub-division has been adequate, and in consequence the outturn was increased by two annas.

The cultivation of more than normal area in every sub-division, and the estimated produce being above average, are due to favourable and sufficient rainfall throughout the season. The estimated outturn in Aurangabad, 16 annas, and in Nawadah, 17 annas, as shown in the preliminary report, have been raised to 18 annas in this report by the Sub-divisional Officers after further consideration.

DISTRICT AND SUBDIVISION.	ACREAGE.				OUTTURN IN CWT.						Percentage by which column 9 exceeds (+) or falls short of (-) outturn in			Remarks by the District Officer.	Remarks by the Department of Land Records and Agriculture, Bengal.		
	Of current year's crop.	Of previous year's crop.	Normal.	Column 3.	Column 4.	Taking 10 annas to represent the average outturn per acre, how many annas will represent this year's outturn (1893)?	Taking 10 annas to represent the average outturn per acre, how many annas will represent this year's outturn (1892)?	Estimated yield of current year, i.e., of area in column 2.	Yield of area in column 2 at full standard rate.	Yield of previous year, i.e., of area in column 3.	Normal.	Column 10.	Column 11.			Column 12.	
Sahabad.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Arrah	...	100,600	922,800	872,600	...	...	13	8	...	...	...	...	...	...	...	...	If the figures reported for the current year are correct, the area entered against Arrah subdivision in column 4 appears to be impossible. The Collector's attention has been drawn to this figure in the remarks on the preliminary forecast. The figures entered against Sasaram are equally open to comment.
Buxar	...	184,600	238,618	236,618	...	...	12	8	...	...	...	...	...	...	...	In Arrah the decrease is due to excessive rainfall which partially damaged the crop. The greater portion of culturable land remained under water owing to the overflow of the rivers, and hence could not be cultivated and sown in time. The figure in column 4 is the normal and not the maximum area capable of being cultivated with winter rice. In Buxar the timely rainfall did much good to the crop this year. In Sasaram the heavy rain in October affected partially the winter rice, which was otherwise good, and in consequence of the extremely wet character of the season, the standing crop was damaged.	
Sasaram	...	353,800	240,672	242,580	...	...	12	11	...	...	...	...	...	...	...		
Bhabua	...	227,700	200,000	312,390	...	...	13	11	...	...	...	...	...	...	...		

In Bhabua rain/fall being sufficient and timely, the crop is according to expectations.													
The abnormal rain/fall in October followed by another flood reduced the outturn to 10 annas on an average.													
The reduction in the outturn in column 7 as compared with figures given in the preliminary forecast is due to recurrence of flood in the Bihar sub-division after submission of the preliminary forecast. The unusually heavy rains and high floods damaged the crops to a considerable extent, and hence the smaller outturn this year as compared with the previous year.													
District Total	550,750	79,000	1,054,677	+7 67	-19 33	14	9						
Darbhanga.													
Sadar	950,000	375,043	375,040	....	....	8	12						
Satrasaur	134,000	125,710	135,789	....	....	8	12						
Madhubani	606,415	605,415	601,053	....	....	12	13						
District Total	982,415	1,106,213	1,152,485	-11 43	-14 75	10	12						
Muzaffarpur.													
Sadar	272,000	323,100	271,000	....	....	9	12						
Itanagar	130,000	75,000	130,000	....	....	14	12						
Sitamarhi	320,000	320,000	320,000	....	....	10	14						
District Total	722,000	718,000	723,000	+41	....	10	12						

[illegible]









[illegible]

Singbhum.	This increase in area cultivated is no doubt due to the favorable rainfall this year. The increase of outturn this year is said to be due to the seasonable rainfall.										
	This figure is very improbable. Last year the area sown was estimated at 478,136 acres, which was a little short of the normal area of the district. The Deputy Commissioner has furnished no explanation of the discrepancy. (a) As estimated by this Department. The arithmetical results are 14 surplus acres for the year and 14.77 for the current year.										
Whole district	688,693	*220,545	693,702	+ 212.55	- 72	14	10				
Total for all Bengal	30,570,385	29,951,460	32,322,560	+ 2.30	- 5.42	(a) 14	(a) 16	3,35,728,968	2,57,142,155	3,54,967,577	- 5.42

## Statement of Rainfall from May to 18th November 1893.

Division.	District.	UP TO 18TH NOVEMBER 1893.													
		MAY.		JUNE.		JULY.									
		Normal average.	Actual rainfall.	Normal average.	Actual rainfall.	Normal average.	Actual rainfall.								
BURDWAN	Burdwan	501	1635	921	1350	1140	1973	1236	540	757	1068	416	412	027	096
	Bankura	403	1337	956	1286	1312	1048	1378	911	916	1245	377	377	039	006
	Birbhum	834	1735	910	1316	1312	1500	1367	947	916	1142	341	341	031	NIL
	Medinipur	615	1452	969	1245	1376	1590	1395	875	814	1340	526	460	031	003
	Howrah	534	1213	1271	1018	1018	1018	1018	1018	1018	1018	457	793	031	003
PRESIDENCY	Howrah	534	1213	943	2175	1313	1630	1428	111	561	1425	352	428	033	003
	24. Paraganahs	579	1307	983	2065	1207	1057	1372	613	902	937	446	584	044	002
	Khulna	681	1415	1244	2214	1315	1381	1370	1078	933	1137	423	423	045	044
	Nadia	635	1152	1045	1210	1045	1145	1145	815	543	1013	417	368	034	023
	Jessore	701	1373	1053	1154	1053	1154	1154	977	940	940	437	440	023	NIL
RAJSHAH	Murshadabad	521	776	993	2197	1000	1365	1179	583	977	940	437	440	023	NIL
	Dinapur	645	1305	1214	1005	1137	1513	344	416	009	009	009	009	009	009
	Rajshahi	619	1141	1182	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148
	Barakpur	1124	1253	1300	1243	1300	1243	1300	1243	1300	1243	1300	1243	1300	1243
	Barisal	791	1253	1300	1243	1300	1243	1300	1243	1300	1243	1300	1243	1300	1243
DACCA	Barisal	791	1253	1300	1243	1300	1243	1300	1243	1300	1243	1300	1243	1300	1243
	Darjeeling	658	381	2462	2782	5007	2546	2546	2546	2546	2546	2546	2546	2546	2546
	Jalpaiguri	1166	583	2012	1503	2012	1503	2012	1503	2012	1503	2012	1503	2012	1503
	Pacca	579	1307	1207	1372	1372	1372	1372	1372	1372	1372	1372	1372	1372	1372
	Faridpur	861	1625	1261	2008	1246	1018	1018	1018	1018	1018	1018	1018	1018	1018
CHITTAGONG	Backergunge	790	2137	1865	3546	1574	1607	1607	1607	1607	1607	1607	1607	1607	1607
	Mymensingh	944	1334	1742	2103	1358	2312	1347	1568	1294	960	585	690	051	016
	Tippora	1021	1728	1791	1575	1527	1520	1637	1637	1637	1637	1637	1637	1637	1637
	Meakhal	1005	1551	2144	3244	2103	2340	2340	2340	2340	2340	2340	2340	2340	2340
	Chittagong Hill Tracts	634	2201	5585	4754	2829	1798	5340	5340	5340	5340	5340	5340	5340	5340
PAINA	Paina	216	561	585	1156	1212	1358	1048	795	720	789	297	369	010	006
	Shahbad	174	520	552	789	1193	1460	1171	663	646	931	266	274	013	004
	Darbhanga	268	567	860	567	1196	1586	1071	1654	925	1084	272	635	064	006
	Muzaffarpur	251	296	769	624	1196	1586	1071	1654	925	1084	272	635	064	006
	Saran	192	260	609	624	1141	1140	1021	876	768	374	616	064	006	006
CHAMPARAN	Champaran	260	460	831	566	1213	2581	1719	1017	945	1737	346	657	009	009



LIBERALITY OF HIS HIGHNESS THE MAHARAJA OF HILL  
TIPPERA AND CERTAIN OTHER NATIVE GENTLEMEN IN  
RELIEVING DISTRESS CAUSED BY THE INUNDATIONS  
OF AUGUST 1893, IN TIPPERA AND NOAKHALI.

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REVENUE DEPARTMENT, AGRICULTURE.

*Calcutta, the 7th December 1893.*

RESOLUTION—No. 5013.

READ—

A letter No. 727G., dated the 20th November 1893, from the Commissioner of the Chittagong Division.

The Lieutenant-Governor is glad to record his recognition of the liberality displayed by His Highness the Maharaja of Hill Tippera and other native gentlemen in the promotion of measures to alleviate the distress which occurred in the districts of Tippera and Noakhali owing to the inundations of August 1893.

2. His Highness the Maharaja of Hill Tippera placed sums aggregating Rs. 6,000 at the disposal of the Collectors of these districts for the relief of his distressed tenants. Rai Abhoy Churn Mitra Bahadur, the contractor for the South Lushai Hills, who has property in Tippera, contributed Rs. 400 for relief operations in the two districts. Maharaja Durga Churn Laha, C.I.E., of Calcutta, and Mr. Arthur Caspersz, Receiver, Joynagar estate, Noakhali, each gave a donation of Rs. 200 to the Collector of Noakhali to be spent in relieving sufferers.

3. Nawab Khaja Ahsanulla Bahadur, C.I.E., of Dacca, and Maharajkumar Benoy Krishna Deb of Sobhabazar, Calcutta, dealt directly with their distressed tenants. The former distributed Rs. 5,000 in gratuitous relief and gave Rs. 5,000 in loans to such of his tenants as required them. The exact amount spent by the latter on these objects has not been ascertained, but the Commissioner reports that his liberality was on a similar scale.

4. In Noakhali M. Yakub Ali Choudhuri and his brothers, Zamindars of Raipur, and Babu Chandra Kumar Roy of Dalalbazar, distributed 10 maunds of rice daily for a period of over a month.

ORDER.—Ordered that a copy of this Resolution be forwarded to the Commissioner of Chittagong for information and for communication to the noblemen and gentlemen referred to.

Ordered also that this Resolution be published in the *Calcutta Gazette*.

By order of the Lieutenant-Governor of Bengal,

C. E. BUCKLAND,

*Secretary to the Government of Bengal.*

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 9th December, 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL.</b>			
BUREAU DIV.	1 Burdwan Dec. 9, '93	Nil	Weather—seasonable. Harvesting of <i>aman</i> continues. <i>Rabi</i> crops doing well. Fodder and water sufficient. Prices of common rice:—
	Kalna ...	Nil	Srs.
	Katwa ...	Nil	Burdwan ... 11 to 15½
	Raniganj ...	Nil	Kalna ... 10 to 15 } per rupee.
			Katwa ... 15
			Raniganj ... 16
	2 Birbhum „ 9, '93	Nil	Weather—seasonable. Winter rice is being gathered in. <i>Rabi</i> crops look promising. Prices of common rice range from 16 to 20 seers per rupee.
	Rampur Hât ...	Nil	
	3 Bankura „ 9, '93	Nil	Weather—seasonably cold. Harvesting of <i>aman</i> continues vigorously all over the district. <i>Rabi</i> sown over increased area and in first-rate condition. Fodder and water sufficient. Prices of common rice (new):—
			Srs.
			Sadar ... 18½ } per rupee.
			Vishnupur ... 17
	4 Midnapore „ 9, '93	Nil	Weather—cool in the morning, warm for this time of the year. Winter rice is being reaped in several places. Prospects continue good. <i>Rabi</i> sowings nearly completed. Fodder and water sufficient. Prices of common rice:—
			Srs.
			Sadar ... 15
			Contai ... 14 to 19 } per rupee.
			Tamluk ... 13
			Ghatal ... 15 to 16
	5 Hooghly „ 9, '93	Nil	Weather—seasonable. <i>Aman</i> is being harvested; outturn satisfactory. <i>Rabi</i> sown; prospects good. Fodder and water sufficient. Prices of common rice:—
	Serampore ...	Nil	Srs.
	Jahanabad ...	Nil	Sadar ... 12 to 13 } per rupee.
			Serampore ... 10 to 14
			Jahanabad ... 11 to 14
PRESIDENCY DIV.	6 Howrah „ 9, '93	Nil	Weather—seasonable. Paddy harvest progressing; in the south about 6 annas have already been cut; in the rest of the district about 2 annas. <i>Rabi</i> crops and sugarcane doing well. Condition of cattle good. Fodder and water-supply sufficient. Prices of rice from 10 to 13 seers per rupee according to locality.
	Ulubaria ...	Nil	
	7 24-Parganas „ 9, '93	Nil	Weather—seasonable; getting colder day by day. Harvesting of <i>aman</i> going on. <i>Rabi</i> sowings nearly completed. Cattle in good condition. Fodder and water sufficient. Prices of common rice:—
			Srs. c.
			Sadar ... 10 to 13 0
			Barasat ... 11 0
			Basirhat ... 10 10½ } per rupee.
			Diamond Harbour ... 13 8
	8 Nadia „ 9, '93	Nil	Weather—cool. Prospects of <i>aman</i> good. <i>Rabi</i> cultivation over. Prices are gradually falling. Fodder and water sufficient. There is no cattle-disease.
	Kushtia ...	Nil	
	Meherpur ...	Nil	
	Chundanga ...	Nil	
	Ranaghat ...	Nil	
	9 Murshidabad „ 9, '93	Nil	Weather—getting cooler. Harvesting of <i>aman</i> continues. <i>Rabi</i> crops are still being sown. Prospect of <i>kalai</i> does not seem to be favourable. In Jangpur insects are doing some injury to the crop. Fodder and water are sufficient for cattle. Common rice sells at 13 seers per rupee.
	10 Jessore „ 9, '93	Nil	Weather—seasonable. Harvesting of <i>chotian aman</i> still going on. Rain wanted for <i>rabi</i> crops. Prospects fair. No cattle-disease reported. Fodder and water sufficient. Price of rice is falling gradually.
	Jhenida ...	Nil	
	Magura ...	Nil	
	Narail ...	Nil	
	Bangaon ...	Nil	
	11 Khulna „ 9, '93	Nil	Weather—seasonable. The cultivation for the winter crops is going on with the harvesting of <i>aman</i> . Common rice sells from 9½ to 12 seers 14 chitaks per rupee. Water and water sufficient.
	Bagerhat ...	Nil	
	Satkhira ...	Nil	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL—concluded.</b>			
RAJBHARI DIVN.	12 Rajshahi Nator Naugaon Dec. 9, '93	Nil Nil Nil	Weather—getting cold; seasonable. Nothing new to report in respect of the crops. There will be an excellent rice crop, and the cultivation of the <i>rabi</i> is progressing under favourable surroundings. Fodder and water-supply ample. No cattle-disease. Price of rice varies from 10 to 16 seers per rupee.
	13 Dinajpur Thakurgaon „ 9, '93	Nil Nil	Weather—cold and pleasant. Winter rice is being harvested. The crop is expected to be a bumper one. Prices are falling at Sadar, but stationary at Thakurgaon. Condition of cattle good. Supply of fodder and water ample.
	14 Jalpaiguri „ 9, '93	Nil	Weather—cool and bright. Harvesting of <i>haimanti</i> paddy going on. Potato and tobacco doing well. Prices of common rice steady. Fodder and water sufficient. No cattle-disease reported.
	15 Darjeeling Siliguri „ 9, '93	Nil Nil	Weather—bright and cool. <i>In the hills</i> :— <i>Haimanti</i> rice, potatoes, <i>marua</i> , and <i>kala</i> are being harvested. <i>Tores</i> and <i>phaphur</i> coming to perfection. Wheat and barley progressing favourably. <i>In the Terai</i> :—Winter rice being cut; other crops doing well. Prices of coarse rice:— Srs. Hills ... 7 to 11 } Terai ... 12 to 13 } per rupee.
	16 Rangpur Gaibanda Kurigan Nilphamari „ 9, '93	Nil Nil Nil Nil	Weather—cool with north-easterly wind. Harvesting of <i>aman</i> continues. <i>Rabi</i> crops doing well. Prospects good. Prices of rice 9 to 14 seers per rupee.
	17 Bogra „ 9, '93	Nil	Weather—fine and cold. Cutting of paddy still going on. Winter crops doing well. Price of rice stationary. Fodder and water sufficient.
	18 Pabna „ 9, '93	Nil	Weather—cool and pleasant. <i>Aman</i> is still being harvested. Prospects of <i>rabi</i> crops continue good. Price of common rice ranges from Rs. 3-8 to Rs. 4 per maund in the Sirajganj subdivision and 10 seers per rupee in the Sadar subdivision. Fodder and water-supply sufficient.
DACCA DIVN.	19 Dacca „ 9, '93	Nil	Weather—seasonable. Harvesting of <i>aman</i> paddy going on. Prospects favourable. Sowing of pulses in low lands still going on. Common rice rice selling at from 8 to 11 seers per rupee. Fodder available. No cattle-disease.
	20 Mymensingh „ 9, '93	Nil	Weather—seasonable. Prospects of standing crops good. Harvesting of <i>aman</i> paddy going on. Common rice selling from 8 to 11 seers per rupee. Condition of cattle good. Supply of fodder sufficient except in some places in the Kishorganj subdivision.
	21 Faridpur Goalundo Madaripur „ 9, '93	Nil Nil Nil	Weather—seasonable. <i>Aman</i> paddy being reaped. State of standing crops continues to be the same. Sowings of <i>rabi</i> crops continue. No cattle-disease. Fodder available. Prices of common rice:— Srs. Sadar ... 11 } Goalundo ... 13 } Madaripur ... 10½ } per rupee.
	22 Backergunge „ 9, '93	Nil	Weather—seasonable. State and prospects of crops fair. Common rice sells from 9 to 12 seers per rupee. Fodder and water sufficient.
CHITTAGONG DIVN.	23 Chittagong „ 9, '93	0-07	Weather—unsettled, being often cloudy. Cultivation and sowing of <i>rabi</i> crops continue. Early paddy being harvested. <i>Aman</i> in ear. Damage from insects apprehended. Prices have slightly fallen. Water and fodder sufficient.
	24 Noakhali „ 9, '93	Nil	Weather—seasonable. <i>Rabi</i> crops being sown. Reaping of <i>aman</i> commenced. It is being damaged by insects in all the thanas of the district. Condition of cattle good. Fodder and water sufficient. Price of rice stationary.
	25 Tippera „ 9, '93	Nil	Weather—seasonable. <i>Aman</i> is being harvested. It has been previously reported as likely to give a 10-anna outturn.
	26 Chittagong Hill Tracts „ 8, '93	Nil	Weather—cloudy with little drizzling on the 4th, and seasonable during the remaining part of the week. Late plough-paddy commences to ripen in some places. A small quantity of vegetables are available in the bazar at high price. Condition of cattle good. Common rice sells at 9 seers per rupee.



No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR.</b>			
PATNA DIVISION.	27 Patna Dec. 9, '93	Nil	Weather—cool and clear. Rice harvest in full progress. <i>Rabi</i> and poppy sowings completed, and are germinating well. Prices of common rice:— <div style="display: flex; justify-content: flex-end; align-items: center;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div>Srs.</div> <div>Sadar ... .. 21</div> <div>Barh ... .. 16</div> <div>Bihar ... .. 21</div> <div>Dinapore ... .. 15½</div> </div> <div style="margin-left: 10px;">} per rupee.</div> </div>
	28 Gaya .. 9, '93	Nil	Weather—cold and clear. Harvesting of paddy going on. <i>Rabi</i> sowings nearly completed. Weeding of poppy in progress. New rice brought to market, sells at 17 seers per rupee. Fodder and water for cattle ample.
	Nawada ...	Nil	
	Aurangabad ...	Nil	
	Jahanabad ...	Nil	
	29 Shahabad .. 9, '93	Nil	Weather—seasonable. Harvesting of paddy in progress. Prospects of <i>rabi</i> and poppy good. Prices steady.
	30 Saran .. 9, '93	Nil	Weather—seasonable. All crop prospects good, including opium. Fodder and water plentiful. Prices stationary. Prices of common rice:— <div style="display: flex; justify-content: flex-end; align-items: center;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div>Srs. c.</div> <div>Sadar ... .. 15 8</div> <div>Siwan ... .. 19 0</div> <div>Gopalganj ... .. 17 2</div> </div> <div style="margin-left: 10px;">} per rupee.</div> </div>
	Siwan ..	Nil	
	Gopalganj ..	Nil	
	31 Champaran .. 9 '93	Nil	Weather—seasonable. Reaping of <i>aghani</i> in progress. <i>Rabi</i> sowings approaching completion. Poppy seeds are germinating freely and the seedlings are healthy. Prices slightly falling.
BHAGALPUR DIVISION.	32 Muzaffarpur .. 9, '93	Nil	Weather—fair and seasonable. Rice harvesting continues. <i>Rabi</i> and poppy already sown doing well. Further sowings in progress. Sufficient moisture in the soil for poppy sowings. Cattle disease prevails to some extent in the Bela outpost in the Sitamarhi subdivision, and death of one head of cattle reported from Majorganj. Fodder and water plentiful.
	33 Darbhanga .. 9, '93	Nil	Weather—getting cooler. Rice harvest still going on. <i>Rabi</i> sowings in progress, and the plants are doing well. Poppy sowings nearly finished. Fodder and water supply sufficient. Price of common rice varies from 17 to 19 seers per rupee.
	34 Monghyr .. 9, '93	...	Report not received.
	35 Bhagalpur .. 9 '93	Nil	Weather—bright and cold. Winter rice is being rapidly got in; results fully up to expectation. <i>Rabi</i> crops are all on the ground and promise very well, especially mustard and linseed. Price of common rice 15 seers 2 chitaks per rupee.
	Banka ...	Nil	
	Madhipura ...	Nil	
	Supaul ..	Nil	
	36 Purnea .. 9, '93	Nil	Weather—cold and clear. Harvesting of <i>aghani</i> going on. Mustard in flower. Outturn of <i>kurthi</i> good. Pressing of sugarcane has commenced. No cattle-disease. Water and fodder sufficient.
	Kishanganj ...	Nil	
	Araria ...	Nil	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.															
BIHAR—consold.																		
BHAUPUR DIV.—consold.	87 Malda Dec. 9, '93	Nil	Weather—getting cooler. Harvesting of winter paddy in full swing. <i>Kalai</i> pulse in flower. <i>Rabi</i> crops thriving well. Ordinary rice sells from 11 to 17 seers per rupee. Fodder and water ample.															
	88 Sonthal Parganas .. 9, '93	Nil	Weather—cool and dry. Prospects of standing crops good. Harvesting of winter rice in progress. New rice selling at from 14 to 19 seers per rupee. Fodder and water sufficient.															
	Deoghur ..	Nil																
	Godda ..	Nil																
	Jamtara ..	Nil																
	Pakur ..	Nil																
	Rajmahal ..	Nil																
ORISSA—A.																		
ORISSA DIV.	39 Cuttack .. 9, '93	Nil	Weather—seasonable. <i>Laghu</i> and <i>guru sarad</i> being harvested. Prices of common rice :— <table><tr><td></td><td>Srs. c</td><td>Srs. c.</td></tr><tr><td>Sadar</td><td>10</td><td>8 to 17 0</td></tr><tr><td>Jajpur</td><td>11</td><td>12 to 15 12</td></tr><tr><td>Kendrapara</td><td>12</td><td>0 to 21 0</td></tr><tr><td>Banki</td><td>18</td><td>0</td></tr></table> } per rupee.		Srs. c	Srs. c.	Sadar	10	8 to 17 0	Jajpur	11	12 to 15 12	Kendrapara	12	0 to 21 0	Banki	18	0
		Srs. c	Srs. c.															
	Sadar	10	8 to 17 0															
	Jajpur	11	12 to 15 12															
	Kendrapara	12	0 to 21 0															
Banki	18	0																
40 Puri .. 7, '93	Nil	Weather—seasonable. <i>Laghu</i> rice is being reaped. <i>Sarad</i> rice is ripening and in places being cut. Sugarcane is being crushed. Miscellaneous crops doing well. Cattle-disease reported. A large number of cattle died during last week in Khurda from mouth disease. Prices of common rice :— <table><tr><td></td><td>Srs. c.</td></tr><tr><td>Sadar</td><td>{ (old) 14 7</td></tr><tr><td></td><td>{ (new) 23 10</td></tr><tr><td>Khurda</td><td>{ (old) 14 7</td></tr><tr><td></td><td>{ (new) 17 1</td></tr></table> } per rupee.		Srs. c.	Sadar	{ (old) 14 7		{ (new) 23 10	Khurda	{ (old) 14 7		{ (new) 17 1						
	Srs. c.																	
Sadar	{ (old) 14 7																	
	{ (new) 23 10																	
Khurda	{ (old) 14 7																	
	{ (new) 17 1																	
	41 Balasore .. 9, '93	Nil	Weather—normal. Harvest of winter rice continues. Prices of coarse rice :— <table><tr><td></td><td>Srs.</td></tr><tr><td>Balasore</td><td>19</td></tr><tr><td>Bhadrak</td><td>18</td></tr></table> } per rupee.		Srs.	Balasore	19	Bhadrak	18									
	Srs.																	
Balasore	19																	
Bhadrak	18																	
CHOTA NAGPUR.																		
South-West Frontier Agency.																		
CHOTA NAGPUR DIV.	42 Hazaribagh Dec. 9, '93	Nil	Weather—seasonable; cold. Paddy, sugarcane, and <i>surguja</i> are being harvested. <i>Rabi</i> crops are being sown. Prospects excellent. Estimated quantity of land sown with poppy 11,800 bighas; about 15 annas of the sowings completed; prospects very good.															
	Giridi ..	Nil																
	43 Lohardaga .. 9, '93	Nil	Weather—seasonable. Harvesting of winter rice continues. Common rice selling at 18 seers per rupee. Fodder and water sufficient.															
	44 Palamau .. 8, '93	Nil	Weather—seasonable. Harvesting of paddy nearly finished. <i>Rabi</i> sowings in progress. Prospects of crops on the ground excellent. A little cattle-disease in thana Patan. Fodder sufficient. Rice selling from 20 to 24 seers per rupee.															
	45 Singhbhum .. 9, '93	Nil	Weather—clear, cold and seasonable. All crops are doing well; harvesting of paddy continues. Price of rice stationary. Fodder sufficient.															
	46 Manbhum .. 9, '93	Nil	Weather—bright and cold. Prospects very good. Harvesting of rice in full swing. Rice selling from 16 to 20 seers per rupee. Fodder and water sufficient.															
	Gobindpur ..	Nil																

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 12th December, 1893.

C. E. BUCKLAND,  
Secy. to the Govt. of Bengal.

## STATEMENT SHOWING THE STOCKS OF RICE IN AND AROUND CALCUTTA.

NAMES OF MARKS.	STOCK IN HAND AS COMPILED ON—												
	1st week of Dec. 1892.	1st week of Jan. 1893.	1st week of Feb. 1893.	1st week of March 1893.	1st week of April 1893.	1st week of May 1893.	1st week of June 1893.	1st week of July 1893.	1st week of August 1893.	1st week of Sept. 1893.	1st week of Oct. 1893.	1st week of Nov. 1893.	1st week of Dec. 1893.
Baharhata	Mds. 3,16,000	Mds. 3,34,000	Mds. 4,05,000	Mds. 6,12,000	Mds. 9,04,000	Mds. 13,32,000	Mds. 11,73,000	Mds. 10,21,000	Mds. 8,86,000	Mds. 8,67,000	Mds. 7,10,500	Mds. 4,53,000	Mds. 4,11,000
Uttadanga	" 57,900	" 65,200	" 78,700	" 99,500	" 1,06,500	" 1,15,000	" 1,17,500	" 1,19,700	" 1,09,400	" 65,000	" 61,300	" 53,300	" 45,400
Chittr, Golabaree, Kanar- tooly, Hatibola, and Uulpi Ghat.	" 5,40,700	" 5,64,700	" 7,01,900	" 6,54,500	" 6,16,600	" 6,43,200	" 6,06,000	" 6,85,300	" 6,64,900	" 6,84,500	" 7,06,700	" 6,25,600	" 4,77,000
Paturashatta, Poata, and Jorabagan.	" 3,000	" 3,000	" 8,000	" 3,500	" 3,000	" 2,000	" 2,500	" 3,000	" 2,000	" 2,500	" 3,000	" 2,000	" 1,500
Tollymore, Ghata, Kiddyore, and Banchikanj.	" 40,600	" 87,900	" 1,14,200	" 1,46,400	" 1,56,700	" 1,55,300	" 1,70,200	" 1,53,300	" 1,31,800	" 1,21,900	" 1,17,600	" 1,06,000	" 97,600
31 Minor bears (estimated) ...	" 2,40,000	" 1,40,000	" 2,40,000	" 2,40,000	" 2,40,000	" 2,40,000	" 2,40,000	" 2,40,000	" 2,40,000	" 2,40,000	" 2,40,000	" 2,40,000	" 2,40,000
Other retail shops, 3,120 in number (estimated).	" 1,50,000	" 2,50,000	" 1,00,000	" 2,50,000	" 2,50,000	" 2,50,000	" 2,50,000	" 2,50,000	" 2,50,000	" 2,50,000	" 2,50,000	" 2,50,000	" 2,50,000
Baidyabati, Nowabganj, Bha- drachwar, and Chandernagore.	" 40,037	" 63,861	" 69,800	" 76,380	" 6,623	" 5,319	" 42,377	" 28,275	" 43,300	" 23,750	" 10,844	" 17,344	" 19,256
Total	14,87,137	16,68,751	18,67,600	20,80,280	23,13,403	27,42,619	26,61,777	24,90,375	23,27,400	22,57,650	20,80,644	17,77,244	15,41,786
On Railway premises on both sides of the river.	24,537 (on 3rd Dec. 1892.)	35,589 (on 3rd Jan. 1893.)	32,791 (on 3rd Feb. 1893.)	22,613 (on 3rd March 1893.)	23,773 (on 3rd April 1893.)	10,334 (on 3rd May 1893.)	11,512 (on 3rd June 1893.)	8,465 (on 3rd July 1893.)	12,397 (on 3rd August 1893.)	13,319 (on 3rd Sept. 1893.)	23,127 (on 3rd Oct. 1893.)	25,583 (on 3rd Nov. 1893.)	19,360 (on 3rd Dec. 1893.)
By Port Com- missioners' re- turns.	38,923 (1st to 3rd Dec. 1892.)	47,038 (3rd to 5th Jan. 1893.)	40,589 (1st to 3rd Feb. 1893.)	22,229 (1st to 3rd March 1893.)	23,720 (1st to 3rd April 1893.)	21,378 (1st to 3rd May 1893.)	19,601 (1st to 3rd June 1893.)	13,314 (1st to 3rd July 1893.)	66,451 (1st to 3rd August 1893.)	23,091 (1st to 3rd Sept. 1893.)	24,729 (1st to 3rd Oct. 1893.)	32,866 (1st to 3rd Nov. 1893.)	25,114 (1st to 3rd Dec. 1893.)
By Canal returns	12,896 (1st to 3rd Dec. 1892.)	1,30,459 (3rd to 5th Jan. 1893.)	1,20,600 (1st to 3rd Feb. 1893.)	1,99,375 (1st to 3rd March 1893.)	76,791 (1st to 3rd April 1893.)	34,109 (1st to 3rd May 1893.)	7,615 (1st to 3rd June 1893.)	14,025 (1st to 3rd July 1893.)	19,737 (1st to 3rd August 1893.)	31,241 (1st to 3rd Sept. 1893.)	34,298 (1st to 3rd Oct. 1893.)	13,531 (1st to 3rd Nov. 1893.)	11,529 (1st to 3rd Dec. 1893.)
Grand total of Stocks ...	15,66,372	18,22,447	20,61,921	23,53,796	24,33,746	28,09,100	27,00,605	25,37,379	24,16,535	23,31,301	21,64,901	18,32,374	16,07,469
Probable stock available for exportation by sea.	6 lakhs	7½ lakhs	10 lakhs	13 lakhs	13½ lakhs	17½ lakhs	16½ lakhs	14½ lakhs	13½ lakhs	12½ lakhs	11 lakhs	7½ lakhs	6½ lakhs.

C. E. BUCKLAND,  
Secy. to the Govt. of Bengal.STATISTICAL DEPARTMENT,  
The 11th December, 1893







<sup>a</sup> Bengal in November 1893.

[illegible]









in Bengal in November 1893—concluded.

[illegible]

**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSERVATIONS  
TAKEN IN ASSAM, FOR THE MONTH OF NOVEMBER 1893.**

THE principal features which have characterised the meteorology of November have been:—

1. Pressure has been in excess of the normal in each week of the month, and the mean excess has varied from 0·04 "to 0·07 "

2. Temperature was nearly normal for the first ten days, and then became rather excessive, and for the period from about the 18th to the 25th the mean temperature was about 8° higher than usual. This excess, however, quickly decreased towards the end of the month, and the average excess for the whole of November equalled about a degree.

3. Humidity and cloud proportion were decidedly higher than usual for the greater part of the month, and the mean monthly amounts were in moderate excess.

4. Rainfall was almost absent for the greater part of the month, though a few unimportant showers fell during certain periods of disturbance. The total falls for the month in most districts have not averaged more than a tenth of one inch, and the highest only a fifth of an inch in South Bihar. Hence rainfall has been less than the normal amount, except in Bihar, where very small excess falls have been registered.

5. The weather during the month has been far less settled than usual, owing to the existence of several storms which formed over the sea area. One cyclonic storm formed in the south of the Bay and struck the Madras Coast to the south of Madras on the 6th, when the disturbed conditions due to the breaking up of the storm, advanced northwards over Bengal. A severe cyclonic storm from the Arabian Sea struck the coast of Kathiawar near Veraval on the 20th, and the disturbed conditions from this spread over the whole of Northern India, Bihar, &c. Another small cyclonic storm formed in the south of the Bay and crossed the south of the Peninsula on the 24th. Lastly, slightly disturbed conditions existed in the hills to the north of Bengal towards the close of the month. All of these disturbances affected the weather in Bengal, and hence conditions in Bengal were unusually disturbed during November.

The meteorology of November in Bengal calls for little detailed review. For the first few days weather was of fine settled character in Bengal, though in the south of the Bay a feeble storm had commenced to form. This advanced slowly towards the Madras Coast, and on the 4th was at some little distance from it, and was still probably only of little importance. On the 5th a brisk fall of pressure occurred in the south-west of the Bay, and a very distinct barometric depression was formed, the centre of which was lying off the South Madras Coast. Conditions having thus become more seriously disturbed over the Bay, weather in Bengal also became a little more unsettled, and the sky clouded over rapidly at the southern stations. From the 5th to the 6th the small storm advanced in a westerly or north-westerly direction, and struck the Madras Coast a little to the south of Madras, probably close to the Seven Pagodas, shortly before 8 A.M. on the 6th. The barometric depression at the centre was considerable, and the storm, though small, was accompanied by a severe gale of wind, very high sea and heavy rain. The depression apparently broke up as a separate storm on striking the coast, but the disturbed conditions due to its disintegration steadily and rather rapidly spread northwards. A moderate wave of humid monsoon winds advanced along the west coast of the Bay, and gave heavily clouded skies with rain at first in Orissa and over the southern parts of Bengal from the 6th to the 8th and 9th; and then as the moist winds again advanced northwards over the province, rainfall extended to Chota Nagpur and Bihar, the rain being reported over the last district, principally on the 9th instant. As the wave of humid winds advanced up the west coast of the Bay, it did not penetrate to any great extent over either East or North Bengal, which districts therefore received very little rain. This advance of humid winds was only temporary and was soon overcome by the superior force of the winds from Upper India, and it was soon driven back towards the Bay by the dry north-westerly and northerly current from Northern India, and on the 11th the rainfall over the province had practically ceased.

Conditions in Bengal therefore from about the 6th to the 11th, were very abnormal, and for the greater part of the time the sky was heavily clouded, the air was unusually damp, the day temperatures were comparatively low, and the night temperatures high, and rain was received in most districts on one or two days.

For the period from the 11th to the 18th weather was generally fine and of ordinary north-east monsoon character, and only a few showers occurred in Orissa and in the hills to the north of Bengal. The humid winds brought up by the storm in the Bay had completely retreated from Bengal, though temperature, humidity, and cloud proportion were still somewhat higher than usual. At this time weather conditions in Bengal again became disturbed, the disturbance being due to the formation and of advance of two storms. The first storm formed in the Arabian Sea, probably about the 17th, and rapidly increased in intensity. It moved in a northerly and north-easterly direction, and struck the Kathiawar coast near Veraval on the 20th. The disturbed conditions and rainfall due to this storm spread in an easterly direction over Central India and the North-Western Provinces, and reached Bihar, and on the 21st and 22nd moderate showers were reported over this area, while more or less disturbed and cloudy weather prevailed over a large part of Bengal. The disturbed conditions at this time were increased by the existence of a storm in the south of the Bay, which formed on the 19th or 20th and advanced slowly in a westerly direction, crossing the south of the Peninsula on the 24th.

It will be thus seen that weather conditions generally during the period from the 18th to the 25th were very decidedly disturbed by the existence of the two storms. Hence, as is

usual during disturbed weather, temperature and humidity were decidedly high in Bengal; the sky was also much more clouded than usual during the north-east monsoon months, and light showers fell in many districts. From about the 25th instant, however, the disturbed conditions due to the two storms were very rapidly passing away, and from the 25th to the close of the month fine settled weather of ordinary north-east monsoon conditions obtained.

**Pressure.**—At the commencement of the month was above the normal by about 0·06" to 0·1". In the second week the excess had increased to 0·07" to 0·11", but it then diminished and equalled about 0·05" for the next fortnight, and at the close of the month it had still further decreased and equalled about 0·02" to 0·04". For the whole month the mean excess has usually ranged between 0·04" and 0·07", and the smallest excess pressures have been shown in Orissa and parts of Bihar, while the largest excess pressures have been registered in the extreme east and extreme west of the province, where Sibsagar on the one hand and Ranchi on the other have registered an excess of 0·075".

**Temperature** was almost normal up to about the 18th, but from the 18th to the 25th it was in excess by about 3°, and from the 25th to the end of the month by about half a degree. For the whole month the average excess in the mean temperature has equalled 1°.

This excess has, however, been almost entirely confined to the night or minimum temperatures, which for the month have been from about 1° to 3° in excess. On the other hand, at the great majority of stations the average day or maximum temperatures for the month have been slightly below the normal, the defect usually equalling about a degree.

**Rainfall.**—The largest average divisional fall has only equalled 0·22 inch in South Bihar. In Orissa, North Bengal and North Bihar the falls have averaged from a fifth to a tenth of an inch, and in the remaining divisions the falls for the month have been less than a tenth of an inch. The only division receiving a fall in excess of the usual amount for November has been Bihar, and in this division the Shahabad district has received the largest amount of 0·85 inch. In the remaining districts a fall of 0·89 inch is reported in Darjeeling, one of 0·69 inch in Kuch Bihar, and one of 0·42 inch in Puri.

The following table gives in a condensed form the rainfall information for each of the seven large meteorological divisions of Bengal for the present year up to the close of November. The numbers there given as in the case of the former months of the year are the actual average rainfalls in each division expressed as a percentage of the normal fall for the period, and the last column also gives the total rainfall up to the close of November expressed in the same way. The rainfall for the year, it will be seen, has been rather largely in excess of the normal in all divisions.

METEOROLOGICAL DIVISIONS.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	Actual rainfall of first eleven months of 1893 expressed as a percentage of the normal fall for the period.
Orissa ...	422	309	238	89	607	99	67	84	186	102	12	144
South-West Bengal ...	120	464	160	115	225	143	94	64	123	108	18	129
North Bengal ...	104	377	145	213	96	100	168	90	100	105	82	116
East Bengal ...	80	291	123	149	207	134	103	100	85	131	8	122
North Bihar ...	170	357	134	208	84	100	151	85	143	158	183	125
South Bihar ...	116	602	188	255	171	156	122	74	132	122	110	125
Chota Nagpur ...	155	585	226	151	212	185	121	72	17	147	21	140

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the month of November 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.							RAINFALL.								
	Highest observed during month.	Lowest observed during month.	Averages for month.			Average mean of month above or below normal mean of month.	Of month.			Rainy days.		Since 10th Oct. 1893.				
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in month.	Normal average number in month.			Variation.	Average.	Normal average.
Orissa	87·7	55·5	82·0	67·7	75·3	+0·6	0·16	1·35	-1·20	0·53	2·12	-1·59	5·13	3·86		
South-West Bengal	87·3	55·5	81·7	64·0	73·6	+6·3	0·06	0·43	-0·27	0·17	0·88	-0·71	2·12	2·3		
North Bengal	85·8	54·8	81·4	62·5	72·0	+1·0	0·14	0·11	-0·03	0·53	0·41	+0·12	3·14	1·39		
East Bengal	87·6	58·0	82·4	65·9	74·1	+0·6	0·09	1·07	-0·08	0·28	1·35	-1·07	4·11	2·00		
North Bihar	84·8	49·9	80·3	61·3	70·8	+1·0	0·13	0·09	+0·03	0·39	0·25	+0·14	5·44	1·00		
South Bihar	85·8	49·0	80·9	61·4	71·2	+1·0	0·23	0·20	+0·02	0·56	0·43	+0·12	3·60	1·22		
Chota Nagpur	85·2*	50·2*	79·1*	60·4*	69·8*	+2·2*	0·07	0·34	-0·27	0·27	0·00	-0·63	3·07	1·15		
Assam	89·5	52·7	80·1	63·1	71·5	-0·1										

\* Daltonganj not included.

METEOROLOGICAL OFFICE, BENGAL,  
The 12th December 1893.

A. PEDDER,  
Meteorological Reporter to the Govt. of Bengal.













# SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS TAKEN IN BENGAL FOR THE WEEK ENDING 8 A.M., SATURDAY, THE 9TH OF DECEMBER 1893.

THE changes during the week have been very small, and have been of a character to intensify the north-east monsoon conditions obtaining over Bengal. At the commencement of the week pressure and temperature were in excess of the normal by small to moderate amounts, and a rather light northerly wind current was reported in all districts. Pressure fell slowly on the 3rd on the first day of the week under review, and this fall continued on the 4th, but a rather brisk increase set in on the 5th, which continued on the 6th, but was succeeded on the 7th by a moderate fall, though on the 8th and 9th pressure was again increasing moderately. The effect of these changes was to make pressure in excess at the close of the week by about 0.11" to 0.12", and as the excess pressure in the south of the Bay was much smaller than this, baric gradients had become decidedly favourable for a strong north-east monsoon, and thus at the close of the week a moderately strong northerly wind current was blowing in all districts. Temperature also has been falling decidedly for the greater part of the week, and from being in excess at the commencement by nearly 2°, at its close the mean temperature had become in defect at all except the extreme south-eastern stations and at the western stations in Bihar, Chota Nagpur and Orissa. In the districts named moderate excess temperatures were still registered at the end of the week, but elsewhere the mean temperature was in defect by amounts ranging up to about 3° in North-East Bengal. In most districts also fine settled weather with nearly cloudless skies has prevailed for almost the whole week, but somewhat cloudy weather was reported in East and North Bengal on two or three days, and a few local showers, but of no practical importance, fell in these districts on the 4th and 5th. Fine settled and dry weather with rather low temperature and humidity therefore prevailed generally for the greater part of the week.

*Pressure* has been above the normal for the greater part of the week, and the average has shown an excess of about 0.06" to 0.1", the excess being largest at the northern stations and smallest in Orissa.

*Temperature.*—The mean temperature was in excess at the beginning and in defect of the normal at the close of the week. For the whole of the period an excess of 1.3° has been registered, the excess having been largest in South Bihar and Chota Nagpur, where it has equalled about 2°.

The actual temperatures registered during the week and their variations from the usual temperature for the present season are most clearly seen in the table below, where the average maximum, minimum and mean temperatures for the week at nine typical stations in different districts of the province are compared with the normal values for the same period. The variations it will be seen have been largest in the night or minimum temperatures, which have been rather considerably above the normal.

*Table showing the excess or defect of the actual mean temperature from the normal for the week ending Saturday, the 9th of December 1893.*

	Normal mean maximum temperature for the week ending 9th December.	Actual mean maximum temperature for the week ending 9th December 1893.	Variation of actual mean from the normal.	Normal mean minimum temperature for the week ending 9th December.	Actual mean minimum temperature for the week ending 9th December 1893.	Variation of actual mean from the normal.	Normal mean daily temperature for the week ending 9th December.	Actual mean daily temperature for the week ending 9th December 1893.	Variation of actual mean from the normal.
Cuttack	82.5	82.4	-0.1	58.4	60.6	+2.2	70.5	71.5	+1.0
Calcutta	77.2	77.3	+0.1	58.6	59.4	+0.8	67.9	68.4	+0.5
Dacca	80.2	80.8	+0.6	59.4	59.8	+0.4	67.8	70.3	+2.5
Burdwan	78.8	78.8	0	57.8	58.9	+1.1	68.3	68.9	+0.6
Patna	76.0	76.2	+0.2	52.7	53.8	+1.1	61.4	61.5	+0.1
Gaya	77.1	78.1	+1.0	51.5	53.7	+2.2	61.3	61.0	-0.3
Purnea	78.1	75.9	-2.2	51.3	52.4	+1.1	64.7	64.3	-0.4
Hazaribagh	72.1	73.1	+1.0	51.3	52.6	+1.3	61.7	62.9	+1.2
Darjeeling	61.2	49.0	-1.3	35.3	35.6	+0.3	47.8	42.6	-5.2

*Rainfall.*—Except for a few unimportant local showers in East and North Bengal, the whole province has been rainless during the week.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 9th of December 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.						RAINFALL.									
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.		Rainy days.			Since 1st of month.		Since 16th Oct. 1893.		
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.
Orissa ... ..	83·3	52·5	81·1	60·5	70·8	+1·2	Nil	0·00	—0·18	0·00	0·22	—0·22	Nil	0·26	5·43	4·30
South-West Bengal ... ..	81·0*	51·3	78·7*	58·2	68·6*	+0·0*	Nil	0·13	—0·13	0·00	0·14	—0·14	Nil	0·14	2·04	2·57
North Bengal ... ..	80·1	46·0	77·7	53·4	65·6	+0·22	0·01	0·06	—0·05	0·01	0·06	—0·05	0·01	0·06	3·06	1·03
East Bengal ... ..	82·1	51·6	78·1†	59·7	69·0†	+1·0†	0·01	0·27	—0·26	0·04	0·25	—0·21	0·01	0·27	4·18	3·44
North Bihar ... ..	78·7	47·3	76·7	53·4	65·1	+1·4	Nil	Nil	0	0·00	0·00	0	Nil	Nil	5·25	1·11
South Bihar ... ..	79·0	50·1	77·6	54·8	66·1	+2·3	Nil	0·01	—0·01	0·00	0·03	—0·03	Nil	0·01	3·56	1·44
Chota Nagpur ... ..	80·3†	49·5†	74·8†	53·9†	64·4†	+2·0†	Nil	0·03	—0·03	0·00	0·06	—0·06	Nil	0·03	3·21	1·42

\* Raniganj not included.  
† Daltonganj not included.

METEOROLOGICAL OFFICE, BENGAL,  
The 12th December 1893.

A. PEDLER,  
Meteorological Reporter to the Govt. of Bengal.

**Abstract of the results of Meteorological Observations taken at the Alipore Observatory in the month of November 1893.**

	Inches.	Date.	Hour.
The mean pressure of the month ...	29.995		
The average pressure of November from 24 years' registers ...	29.970		
The highest pressure in the month ...	30.116	25th.	10
The lowest pressure in the month ...	29.885	18th.	16
The range of pressure ...	0.231		
The total number of hours of bright sunshine during the month	208.8		
The maximum possible number of hours of sunshine ...	330.8		
☉			
The mean temperature of the month ...	72.5		
The average temperature of November from 24 years' registers	74.8		
The highest temperature in the month ...	84.0	1st.	
The lowest temperature in the month ...	58.7	30th.	
The range of temperature during the month ...	25.3		
The mean daily range of temperature ...	14.8		
The greatest range of temperature in one day ...	19.5	30th.	
Per cent.			
The mean humidity of the month ...	79		
The average humidity of November from 24 years' registers ...	72		
Inches.			
The mean vapour tension of the month ...	0.627		
The average vapour tension of November from 9 years' registers	0.616		
The mean cloud proportion of the month ...	2.90		
The average cloud proportion of November from 16 years' registers	2.54		
The total rainfall of the month ...	0.03		
The total rainfall indicated by a Beckley's self-registering rain-gauge (month of the gauge about 52 feet above the ground)	0.02		
The average fall of November from 48 years' registers ...	0.65		
The greatest fall in 24 hours ...	0.03	6th.	
Days.			
The number of rainy days in the month ...	1		
The average number of rainy days in November from 24 years' registers ...	2		
☉			
The mean maximum equilibrium temperature of solar radiation during the month ...	132.7		
The mean difference of sun and air temperatures ...	52.3		
The greatest sun temperature ...	143.4	3rd.	
The greatest excess of sun over air temperature ...	61.2	3rd.	
The mean temperature of the nocturnal radiation thermometer on woollen cloth ...	60.0		
The mean depression of the nocturnal radiation thermometer below the minimum air temperature at 4 feet above the ground ...	5.7		
The greatest depression of the nocturnal radiation thermometer below the minimum air temperature ...	8.3	30th.	
Miles.			
The mean movement of the wind per day ...	34.1		
The greatest movement of the wind in one day ...	57.0	13th.	
The greatest movement of the wind in one hour ...	10.0	26th, 1 to 2 P.M. and 2 to 3 P.M.	
The number of hours with winds from each of the 8 points—			
N. 219, N.E. 72, E. 14, S.E. 6, S. 1, S.W. 2, W. 20, N.W. 66, Calm 320.			










The results of observations at the Alipore Observatory are not rigorously comparable with the registers of past years (at the Park Street Observatory). The barometer is about 3 feet higher at Alipore, and, other things being equal, reads therefore .003 lower. The diurnal range of temperature is also greater at Alipore, and the mean temperature apparently about 1.6° lower; and, finally, the thermometer which furnished the record of temperature at the Surveyor-General's Office during 20 years and upwards is found to read 0.6 higher than the Kew standard thermometer, which is the standard of reference at the present Observatory.

C. LITTLE,

METEOROLOGICAL OFFICE, INDIA;  
Calcutta, the 11th December 1893.

For Meteorological Reporter to the Govt. of India.

**Results of the Meteorological Observations taken at the Alipore Observatory from  
3rd to 9th December 1893.**

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fah.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
		°		Inches.	°	°	°	°	°	Inches	°	%			Inches.	
Dec.	3rd	135.5	7.9	30.020	67.9	77.7	18.5	59.2	63.0	0.513	59.6	77	NNE and calm ...	23	Nil	Partially cloudy, 
"	4th	130.8	8.1	.018	68.8	77.7	17.5	60.2	64.8	.563	62.3	81	ENE and calm ...	16	"	Partially cloudy, 
"	5th	124.5	5.4	.063	69.3	77.7	13.7	64.0	66.3	.607	64.4	85	ENE and calm ...	25	"	Partially cloudy,   
"	6th	127.1	8.8	.076	69.5	77.9	16.5	61.4	64.8	.554	61.8	78	NNE and calm ...	45	"	Chiefly clear, 
"	7th	129.0	9.4	.089	66.3	76.9	17.7	59.2	61.0	.462	56.7	72	NNE and calm ...	45	"	Clear, 
"	8th	128.8	9.2	.116	65.2	76.9	21.1	55.8	58.4	.416	53.8	69	NNE and calm ...	23	"	Clear, 
"	9th	129.1	9.3	.109	65.5	76.4	20.2	56.2	59.9	.443	55.6	70	NNW and calm	39	"	Clear, 

The mean pressure of the seven days ... ..	Inches.	30.063
The average pressure of the corresponding period for 24 years, Surveyor-General's Office ... ..		30.020
The total number of hours of bright sunshine ... ..	Hours.	58.1
The maximum possible number of hours of sunshine ... ..		75.4
The mean temperature of the seven days ... ..		67.6
The average temperature of the corresponding period for 24 years, Surveyor-General's Office ... ..		69.4
The extreme variation of temperature ... ..		22.1
The maximum temperature ... ..		77.9
The highest velocity of the wind in one hour ... ..	Miles.	6
The highest pressure of wind on one square foot ... ..	lbs.	?
The mean relative humidity ... ..	%	76
The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office ... ..		71
The total fall of rain from 3rd to 9th December 1893 ... ..	Inches.	Nil
The average fall of the corresponding period for 24 years, Surveyor-General's Office ... ..		0.03
The total fall from 1st January to 9th December 1893 ... ..		85.23
The average fall of the corresponding period for 24 years, Surveyor-General's Office ... ..		65.19

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.



The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o, overcast; , dew; , fog.

Abstract of the Results of the Barometric and Thermometric Observations taken at 10 a.m. at the Meteorological Office, Chowringhee, in the month of November 1893.

		Inches.	Date.
The mean pressure at 10 A.M. during the month	...	80.066	
The mean temperature at 10 A.M. during the month	...	77.9	
The highest temperature during the month	...	84.9	1—3.
The lowest temperature during the month	...	59.9	27, 29 and 30th.
The absolute range of temperature during the month	...	25.0	
The mean daily range of temperature during the month	...	16.4	
The greatest range of temperature in one day during the month	...	21.0	29th.
		%	
The mean 10 A.M. humidity during the month	...	66	
		Inch.	
The mean 10 A.M. vapour tension during the month	...	.628	
The total rainfall of the month	...	0.05	
The greatest fall in 24 hours	...	0.05	6th.
The number of rainy days in the month	..	Nil*	

\* The definition of a rainy day is that when the rainfall measured is '1" or upwards.

C. LITTLE,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA,  
The 11th December 1893.

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 3rd to 9th December 1893.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.						HYGROMETRY.			Rainfall, past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
December	3rd	30.080	68.7	78.0	20.5	58.4	73.6	64.8	.489	58.3	59	Nil
"	4th	.084	70.2	79.9	19.5	60.4	73.6	65.8	.524	60.3	63	"
"	5th	.140	71.4	78.9	15.0	63.9	69.8	68.1	.668	67.2	92	"
"	6th	.142	70.0	78.9	16.0	62.9	74.1	66.6	.554	61.8	66	"
"	7th	.090	68.1	78.3	20.4	57.9	72.1	62.7	.445	55.7	56	"
"	8th	.134	67.4	78.9	23.0	55.9	72.6	61.7	.405	53.1	51	"
"	9th	.150	66.4	76.9	21.0	55.9	71.1	62.7	.459	56.6	60	"

		Inches.
The mean 10 A.M. pressure of the seven days	...	30.117
		°
The mean temperature of the seven days	...	69.0
The extreme variation of temperature	...	24.0
The maximum temperature	..	79.9

		%
The mean 10 A.M. relative humidity of the seven days	...	64

		Inch.
The total fall of rain from 3rd to 9th December 1893	...	Nil

The daily mean temperatures are the crude means of maximum and minimum temperatures.

C. LITTLE,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA,  
The 11th December 1893.

## IRRIGATION DEPARTMENT, BENGAL.

IRRIGATION OPERATIONS FOR THE OFFICIAL YEAR 1893-94.

Areas leased for irrigation up to end of October 1893.

Circles.	District.	Canal.	Estimated full discharge.	Average discharge in month.	C. ft. (C. ft. )	Discharge utilized.	Approximate area of land irrigated during the year up to the end of the month.	Approximate area of land under irrigation up to the same date last year.	DETAILS OF AREAS LEASED.										Rainfall, 1892-93.	REMARKS.		
									Annual leases.													
									Khairi.	Sugar-cane.	Rhodion.	Hot-weather.	Total.	GRAND TOTAL.								
			Acres.	C. ft.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Inches.	Inches.	Inches.	Inches.	Inches.			
ORISSA	Cuttack	Talabanda, 1st reach	1,342	146	6,790	5,936	6,175	6,175	113	...	...	...	119	6,438	73.03	5.25	43.85	5.25	43.85			
		Idra, 2nd "	565	114	5,110	27,494	5,131	5,131	...	19	...	...	560	5,891	5.40	7.25	48.41	7.25	48.41			
		Machena	760	60	...	46,803	27,763	27,763	1,807	25	...	...	1,882	20,395	5.90	6.77	81.96	6.77	81.96			
		Kendrapara	1,067	512	46,304	...	...	...	...	...	...	...	46	800	4.54	5.67	6.89	5.67	6.89			
		Gobri	872	44	1,931	2,910	720	720	40	...	...	...	...	...	...	...	...	...	...			
		Do. Extension	618	86	1,359	3,774	715	715	...	...	...	...	...	...	...	...	...	...	...			
		Pattampur	885	301	9,893	12,027	2,460	2,460	11	...	...	...	11	2,411	4.90	69.36	7.02	10.32	10.32			
		High Level, Range I	608	380	11,093	21,976	5,846	5,846	...	1	...	...	24	3,369	6.89	68.25	2.52	50.82	50.82			
		Ditto, do. II	727	342	34,432	2,084	2,084	2,084	52	...	...	...	52	2,068	...	...	...	...	...			
		Jayanti Canal	790	142	1,813	2,720	1,813	1,813	...	...	...	...	...	...	...	...	...	...	...			
MIDNAPORE	Midnapore	High Level, Range III	727	118	15,711	...	16,171	16,171	151	...	...	...	151	16,682	5.92	58.40	2.34	61.16	61.16			
		Total	1,342	...	1,342	...	66,481	66,481	2,626	217	...	...	1,122	6,100	...	...	...	...	...			
		Total of the corresponding period of last year	...	...	...	...	56,925	56,925	2,364	208	...	...	3,775	102,970	...	...	...	...	...			
		Midnapore	1,411	532	72,988	81,449	74,260	74,260	...	...	...	...	...	...	...	...	...	...	...			
		Panchkura	522	48	2,092	7,266	6,705	6,705	5,508	...	...	...	5,508	12,416	5.89	65.94	2.62	32.86	32.86	29 days discharging.		
		Total Beaches, Ranges I & II	...	...	461	835	835	835	...	...	...	...	...	...	...	...	...	...	...	12 days discharging.		
		Total	...	...	73,431	90,550	82,001	82,001	5,508	...	...	...	5,508	87,529	...	...	...	...	...			
		Total of the corresponding period of last year	...	...	...	...	86,963	86,963	13	...	...	...	13	86,279	...	...	...	...	...			
		Western Main	4,342	2,900	19,077	15,971	15,530	15,530	...	...	...	408	5,099	21,130	...	...	...	...	...			
		Buxar	1,226	563	64,817	67,151	56,300	56,300	4	...	...	...	15,715	73,215	8.47	46.63	0.08	59.62	59.62			
BOXT	Shahabad	Arrah	2,046	1,468	193,631	110,389	190,926	190,926	...	...	...	19,175	23,513	146,440	9.17	46.37	0.35	34.37	34.37			
		Eastern Main	1,408	1,068	2,648	2,506	2,698	2,698	...	...	...	38	615	2,718	...	...	...	...	...			
		Patna	...	...	71,002	61,148	59,018	59,018	...	...	...	1,767	13,694	72,762	6.22	59.72	...	...	...			
		Patna and Gaya.	...	...	296,575	259,974	285,542	285,542	4	...	...	77	58,898	312,218	...	...	...	...	...			
		Total	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
		Total of the corresponding period of last year	...	...	...	...	207,033	207,033	7,000	...	...	187	74,456	292,124	...	...	...	...	...			
		Grand total	...	...	971,274	506,218	146,542	146,542	7,567	217	...	77	68,906	469,300	...	...	...	...	...			
		Grand total of the corresponding period of last year	...	...	...	...	207,638	207,638	9,684	238	187	8,767	80,274	531,003	...	...	...	...	...			
		Grand total of the corresponding period of last year	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
		Grand total of the corresponding period of last year	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			

G. C. MACONCHY,  
Under-Secy. to the Govt. of Bengal.CALCUTTA,  
The 11th December 1893.



CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 9th December 1893, as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 9TH DECEMBER 1893.			WEEK ENDING SATURDAY, THE 10TH DECEMBER 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ... ..	447	38,625	488	969	62,320	811
Jute ... ..	246	1,27,675	2,158	438	2,21,250	3,619
Firewood ... ..	131	73,475	1,139	104	48,600	713
Other articles ... ..	1,035	4,59,750	3,626	1,016	2,30,670	3,558
Total ... ..	1,858	4,59,750	7,406	2,522	5,62,840	8,701



## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 2nd December 1893, on 1,610½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	*284,607	Rs. A. P. *3,39,307 8 0	Mds. s. 25,44,044 20	Rs. A. P. 6,04,306 13 0	Rs. A. P. 10,017 2 0	Rs. A. P. 10,19,821 7 0	78,130	104,324	182,454
Or per mile of railway ...	.....	..... 210 11 7	.....	..... 412 7 9	..... 9 15 1	..... 638 2 5	.....	.....	.....
For previous 21½ weeks of half-year ...	5,980,784	65,23,760 0 0	5,03,31,302 20	1,13,63,613 9 0	3,22,533 2 0	1,82,09,936 4 0	1,017,078½	2,072,026½	3,090,004½
Total for 22½ weeks ...	6,265,481	68,63,137 1 0	5,30,75,437 0	1,20,27,920 6 0	3,38,570 4 0	1,92,20,627 11 0	1,607,108½	2,176,350½	3,783,458½
COMPARISON.									
Total for corresponding week of previous year ...	261,107	3,05,795 14 5	24,08,800 20	6,79,237 13 5	19,293 5 0	10,04,237 0 10	75,045	105,354	180,399
Per mile of railway corresponding week of previous year ...	.....	..... 189 14 0	.....	..... 421 13 1	..... 11 14 10	..... 623 8 11	.....	.....	.....
Total for corresponding 22½ weeks of previous year ...	5,826,887½	62,36,426 14 10	5,21,01,238 20	1,18,32,720 4 2	3,72,853 2 2	1,84,41,990 5 2	1,664,620	2,036,690	3,701,310

\* The increase is partly due to running of troop extra and special trains and partly to visitors for Sonapur fair.

## TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 2nd December 1893, on 22½ miles open.

	COACHING TRAFFIC		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	19,464	Rs. A. P. 4,845 5 0	Mds. s. 14,860 30	Rs. A. P. 555 8 0	Rs. A. P. 11 0 0	Rs. A. P. 5,421 13 0	912	56	968
Or per mile of railway ...	.....	..... 219 9 0	.....	..... 23 9 11	..... 0 7 11	..... 243 10 10	.....	.....	.....
For previous 21½ weeks of half-year ...	*374,016	*91,277 14 0	†1,97,235 10	46,714 1 0	‡353 0 0	98,344 15 0	18,858	1,576½	20,534½
Total for 22½ weeks ...	393,480	96,163 3 0	2,12,096 0	7,239 9 0	364 0 0	1,03,766 12 0	19,870	1,632½	21,502½
COMPARISON.									
Total for corresponding week of previous year ...	19,010	4,802 11 3	10,391 30	469 9 0	12 0 0	5,284 4 3	869	79	948
Per mile of railway corresponding week of previous year ...	.....	..... 216 13 8	.....	..... 21 1 8	..... 0 8 7	..... 237 7 11	.....	.....	.....
Total for corresponding 22½ weeks of previous year ...	422,012½	1,03,375 5 10	1,63,163 20	7,308 0 0	285 13 6	1,11,569 3 4	20,049	1,600	21,649

\* Added number of passengers 291 and deducted Rs. 106½ on account of difference between the approximate and audited figures for the week ended 21st October 1893.  
† Do. maunds 18 and deducted " 25½  
‡ Deducted

## DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for week ended 2nd December 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	16,899	Rs. A. P. 12,102 8 0	Mds. s. 70,600 0	Rs. A. P. 10,535 0 0	Rs. A. P. 52 0 0	Rs. A. P. 22,689 8 0	5,581	3,475	9,056
Or per mile of railway ...	.....	..... 74 15 0	.....	..... 65 1 4	..... 0 5 2	..... 140 9 3	.....	.....	.....
For previous 21½ weeks of half-year ...	*422,684	*3,15,601 14 0	†13,32,095 20	†1,70,514 2 0	‡881 0 0	4,86,807 0 0	131,219	61,415½	192,634½
Total for 22½ weeks ...	439,583	3,27,604 0 0	14,00,695 20	1,81,049 2 0	933 0 0	5,09,556 8 0	136,800	64,890½	201,690½
COMPARISON.									
Total for corresponding week of previous year ...	15,448	11,465 12 11	47,670 10	11,432 4 2	45 14 3	22,943 15 4	5,337	3,020	8,357
Per mile of railway corresponding week of previous year ...	.....	..... 71 0 8	.....	..... 70 13 4	..... 0 4 6	..... 142 2 6	.....	.....	.....
Total for corresponding 22½ weeks of previous year ...	377,377	2,92,603 0 6	9,00,244 20	1,63,412 4 8	2,180 4 6	4,58,258 2 8	142,004	56,570	198,574

\* Deducted number of passengers 477 and Rs. 1,386½ on account of difference between the approximate and audited figures for the week ended 21st October 1893.  
† Added maunds 35,504 and " 1,439½  
‡ Do.

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K.-D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for the week ended 2nd December 1893, on 778 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	183,180	93,800 0 0	19,90,470 0	1,07,680 0 0	13,000 0 0	2,71,830 0 0	28,171	34,248	62,422
Or per mile of railway ...	235	121 0 0	1,273 0	216 0 0	11 0 0	1338 0 0	...	...	...
For previous 21 weeks of half-year* ...	3,638,406	16,33,534 0 0	1,82,79,076 0	37,11,835 0 0	8,76,355 0 0	57,21,724 0 0	503,303	740,646	1,242,949
Total for 22 weeks ...	3,721,536	17,27,424 0 0	1,93,69,546 0	38,79,715 0 0	8,80,415 0 0	59,06,654 0 0	621,477	783,894	1,405,371
COMPARISON.									
Total for corresponding week of previous year ...	175,880	80,030 0 0	7,34,770 0	1,72,097 0 0	17,225 0 0	2,09,352 0 0	20,550	36,063	63,503
Per mile of railway corresponding week of previous year ...	226	103 0 0	946 0	221 0 0	11 0 0	1325 0 0	...	...	...
Total to corresponding date of previous year ...	3,549,841	15,88,750 0 0	1,60,13,666 0	33,96,442 0 0	4,10,197 0 0	59,06,395 0 0	601,051	850,024	1,455,275

\* Audited up to week ending 7th October 1893.

† Excluding steamer earnings.

‡ Increase in weight and decrease in amount due to coal traffic from Beliaghata to Bracebridge Hall.

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for the week ended 2nd December 1893, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	36,230	13,080 0 0	35,210 0	2,270 0 0	190 0 0	15,540 0 0	3,611	...	5,715
Or per mile of railway ...	290	105 0 0	282 0	18 0 0	1 0 0	124 0 0	...	...	...
For previous 21 weeks of half-year* ...	655,797	2,20,645 0 0	11,03,517 0	13,427 0 0	3,168 0 0	3,17,240 0 0	77,951	...	120,109
Total for 22 weeks ...	692,027	2,33,725 0 0	12,01,727 0	15,697 0 0	3,358 0 0	3,32,780 0 0	81,020	...	125,884
COMPARISON.									
Total for corresponding week of previous year ...	29,007	11,166 0 0	46,431 0	3,638 0 0	264 0 0	15,068 0 0	3,680	1,906	5,676
Per mile of railway corresponding week of previous year ...	237	89 0 0	371 0	29 0 0	2 0 0	120 0 0	...	...	...
Total to corresponding date of previous year ...	674,006	2,27,594 0 0	12,23,065 0	1,02,322 0 0	4,020 0 0	3,33,930 0 0	81,941	47,026	128,967

\* Audited up to week ending 7th October 1893.

## DACCA STATE RAILWAY.

Approximate Return of Traffic for the week ended 2nd December 1893, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	21,070	7,240 0 0	43,680 0	4,160 0 0	110 0 0	11,510 0 0	2,487	1,101	3,588
Or per mile of railway ...	245	84 0 0	508 0	49 0 0	1 0 0	134 0 0	...	...	...
For previous 21 weeks of half-year* ...	306,735	1,25,091 0 0	7,41,938 0	60,022 0 0	3,605 0 0	1,01,021 0 0	53,136	23,064	76,200
Total for 22 weeks ...	327,805	1,32,334 0 0	7,85,618 0	64,182 0 0	3,615 0 0	2,03,131 0 0	55,623	24,165	79,788
COMPARISON.									
Total for corresponding week of previous year ...	20,435	6,543 0 0	23,856 0	2,472 0 0	76 0 0	9,080 0 0	2,487	737	3,224
Per mile of railway corresponding week of previous year ...	238	76 0 0	277 0	29 0 0	1 0 0	106 0 0	...	...	...
Total to corresponding date of previous year ...	371,159	1,20,383 0 0	5,40,904 0	47,556 0 0	4,704 0 0	1,73,243 0 0	56,201	16,672	72,873

\* Audited up to week ending 7th October 1893.

## BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIERHUT STATE RAILWAY.)

*Approximate Return of Traffic for the week ending 2nd December 1893, on 756 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs.	Mds.	Rs.	Rs.	Rs.			
Total traffic for the period on 756 miles open ... ..	106,350	(a) 46,366	2,95,670	47,070	10,380	1,04,560	15,402	13,453	28,855
Or per mile of railway ... ..	140'67	61'10	391'10	63'45	13'07	138'31	.....	.....	.....
For previous 21½ weeks of half-year (b) ... ..	1,943,892	7,71,575	51,86,561	6,85,226	1,02,989	16,49,790	323,308	284,969	607,577
Total for 22½ weeks ... ..	2,050,242	8,17,835	54,83,231	7,33,106	2,03,319	17,54,350	338,710	297,722	636,432
COMPARISON.									
Total for corresponding period of previous year on 755 miles open	83,363	32,636	3,43,312	46,400	10,606	89,792	13,909	16,575	30,484
Per mile of corresponding week of previous year ... ..	110'41	43'23	454'72	61'57	14'13	118'03	.....	.....	.....
Total to corresponding date of previous year ... ..	2,009,145	7,90,232	50,56,351	7,00,050	2,10,901	18,09,783	305,714	339,823	645,536

(a) Increase in coaching traffic is due to fairs held at Sonapore and Ajodhya.

(b) Includes edited figures up to 21st October 1893.





# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, DECEMBER 20, 1893.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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### NOTE ON THE EARLY COTTON CROP IN BENGAL, 1893.

The following is published for general information.

REVENUE DEPT.,  
The 14th December, 1893.

C. E. BUCKLAND,  
Secy. to the Govt. of Bengal.

### DEPARTMENT OF LAND RECORDS AND AGRICULTURE, BENGAL.

#### *Note on the Early Cotton Crop in Bengal, 1893.*

1. *Explanatory.*—There are, generally speaking, two cotton crops in Bengal, namely, the early crop, believed to be the more important of the two, which is sown during the monsoon rains and harvested during the cold weather, and the late crop which is sown at the close of the rainy season and harvested in the hot weather. This report is prepared in accordance with the orders of Government prescribing the issue of two annual forecasts—one dealing with the early crop, and the other with the late crop. The report on the late cotton crop of this year will be issued in the beginning of February next.

The cultivation of cotton has ceased to be important in Bengal, except in the Chittagong Hill Tracts and in a few districts of Bihar, Chota Nagpur, and Orissa. The Chittagong Hill Tracts is the only district which now grows cotton for export; the produce of the other districts is locally consumed.

2. *Area sown.*—The total area sown in early cotton this year appears from the returns annexed hereto to be 226,437 acres against 231,780 acres estimated to have been sown last year. In some districts the area sown this year is reported to be less than last year's area on account of excessive rainfall at the sowing time, but on the whole there does not appear to have been any marked decrease in the area sown this year.

3. *Character of the crop.*—The excessive rainfall which characterised the last rainy season is reported to have more or less injured the cotton crop in most districts; and in some places the crop was further damaged by floods. Taking all the cotton-growing districts together, the outturn of the early crop may be estimated at  $10\frac{1}{2}$  annas or two-thirds of an average crop. The crop is reported to be extremely poor in the Chittagong Hill Tracts, which is, as already remarked, the only cotton-exporting district in Bengal.

B. C. BASU,

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COUNTERSIGNED.

W. C. MACPHERSON,

*Offg. Director of the Dept. of Land Records  
and Agriculture, Bengal.*

CALCUTTA,

*The 8th December 1893.*





1	2	3	4	5	6	7	8	9
Division.	District.	Approximate area under cotton in acres.	Approximate area sown last year in acres.	Estimated area sown this year in acres.	Taking 16 annas to represent the average outturn per acre, how many annas represented outturn last year?	Taking 16 annas to represent the average outturn per acre, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Panna	Panna	13,072	9,880	6,788	Annas. 11½	Annas. 6	In the Sodar sub-division there is a decrease in the area sown which was due to excessive rainfall, but the area, though smaller, will give a better yield as the crop will be well. There is a decrease in the area sown in the Sodar sub-division due to excessive rain at the time of sowing. In the Dhanpur sub-division, owing to heavy rainfall throughout the season, the seeds did not germinate properly, hence there is a decrease in outturn.	Hitherto the area under cotton cultivation in this district used to be estimated at 3,400 acres (vide Table A.13 of 1891-92, and Report on cotton crops in Bengal for the year ending June 1892.) In the Sodar sub-division, the area under cotton during the last rainy season was sown as 2,283 acres. The Collector now estimates the normal area under early cotton crop, i.e. exclusive of late cotton, if any, at 13,072 acres, and the area sown this year at 6,788 acres. It is necessary to reconcile such discrepant estimates. One of the estimated average under cotton this year, 6,700 acres appear to be in the Barh sub-division. Hence the area, the Sodar and Dhanpur sub-divisions are insignificant.
	Gaya	106	160	100	16	13	The cultivation of cotton is only nominal, any slight change in the cultivated area or estimated outturn is therefore almost imperceptible.	The estimates of area under cotton appear to be very doubtful.
	Darbhanga	12,914	12,914	12,914	17	10	The excessive rain in August and September has affected the outturn.	The rainfall during August was almost equal to the normal, but in September and October it was considerably in excess of the normal fall.

	Muzaffarpur	9,000	9,000	9,000	16	5	The decrease in the outturn of this year is due to the excessive rains and high floods that have caused a great damage to this crop throughout the district.
	Saran	...	40,000	40,000	13	16	Better outturn this year is due to favourable rainfall.
	Champaran	...	1,000	1,000	14	10	Excessive rains and floods are the causes of decrease in the outturn.
Bhagalpur	Monghyr	...	10,700	10,700	14	6	No return was called for from these two districts. The figures shown here have been taken from the preliminary bhadoi forecast for 1894, with the exception of the estimate of normal area in Monghyr, which has been taken at the same figure as the area sown this year. The estimate of outturn in Monghyr seems rather low.
	Bhagalpur	...	14,000	14,000	15	10	
	South Parganas	12,500	12,500	12,500	12	13	The increase in the area sown this year is due to the favourable rain that fell.
Orissa	Cuttack	...	3,600	2,100	11	16	The present estimate of area sown with early cotton this year differs slightly from the estimate 110,600 acres given in the preliminary bhadoi forecast of 1893, but it differs greatly from the estimate of area both early and late sown in 1891-92, which is given as 1,587 acres only in the Report of cotton crop for that year. The area sown in cotton during the last bhadoi season was given in the preliminary bhadoi forecast as 3,338 acres against 1,914 acres now shown.
	Balasore	...	985	319	11	12	

Much of the loss is believed to have been due to ill-till, for the district of rainfall was very much below the average of Saran, where a full average crop is expected.

The present estimate of area sown in cotton agrees with the estimates given in Table A of Agricultural Statistics for 1891-92 and in the Report on cotton crop for year ending 31st June 1893; but it differs very widely from the estimate given in the preliminary bhadoi forecast for 1893, while it is put at 11,700 acres.

No return was called for from these two districts. The figures shown here have been taken from the preliminary bhadoi forecast for 1894, with the exception of the estimate of normal area in Monghyr, which has been taken at the same figure as the area sown this year. The estimate of outturn in Monghyr seems rather low.

The present estimate of area sown with early cotton this year differs slightly from the estimate 110,600 acres given in the preliminary bhadoi forecast of 1893, but it differs greatly from the estimate of area both early and late sown in 1891-92, which is given as 1,587 acres only in the Report of cotton crop for that year.

The area sown in cotton during the last bhadoi season was given in the preliminary bhadoi forecast as 3,338 acres against 1,914 acres now shown.

On account of heavy rain and consequent floods at the sowing time, the outturn of this cotton crop is below the normal. The outturn is also due to the same cause and to the high floods and untimely rainfall. The decrease in area is due to excessive rain at the time of sowing, and the increase in outturn, as compared with that of last year, is in consequence of good rains.

1	2	3	4	5	6	7	8	9
DIVISION.	DISTRICT.	Approximate normal area under cotton in acres.	Approximate area sown last year in acres.	Estimated area sown this year in acres.	Taking 10 annas to represent the average outturn per acre, how many annas represented outturn last year.	Taking 10 annas to represent the average outturn per acre, how many annas will represent this year's outturn?	Remarks by the District Officer.	Remarks by the Department of Land Records and Agriculture, Bengal.
Chota Nagpur	Puri	14,460	12,452	9,950	Annas. 6	Annas. 12	Owing to abundant rainfall in May, the area under cotton decreased, but the outturn is expected to be good owing to the season being favourable.	In the preliminary bhadoi crops forecast for 1893, the area sown in cotton during the last bhadoi season was shown as 8,500 acres
	Angul and Khond Bals.	5,000	5,000	5,000	7	16	.....	No return was called for from this district. The figures shown have been taken from the preliminary bhadoi forecast of 1893, with the exception of the figures in columns 3 and 4, which have been assumed to be equal to the area sown this year.
	Hazaribagh	7,471	7,471	7,471	194	12	.....	The return for Hazaribagh has not been received. The figures shown here have been introduced from the preliminary bhadoi crops forecast.
	Lohardaga	11,000	11,000	11,000	16	12	This is not a cotton-producing district. What is produced is barely sufficient to meet the consumption of the people of the district.	In the report of cotton for year ending June 1892, the area under cotton in this district was estimated at 51,75 acres. This includes both early and late cotton. Put the area under the latter is believed to be insignificant as compared with the acreage under the early crop. The present estimate of area sown in cotton in the last bhadoi season as shown in the preliminary bhadoi forecast for 1893.
	Palamanu	10,000	5,827	5,827	13	11	Owing to excessive rainfall the outturn is worse than last year.	In the preliminary bhadoi forecast for 1893, the area sown in cotton

In the last bhadol season was shown as 7,927 acres. It is not stated why the area sown this year should be below the normal. Is it due to excessive rainfall at sowing time, or to the usual misconception about the terms 'normal' and 'maximum' which are wrongly taken to be the maximum area capable of being sown in a particular crop?

In the preliminary bhadol forecast of 1893, the area sown in cotton in the last bhadol season was given as 9,781 acres. It is not explained why this year's area should be so short of the normal. *Vide* remarks under Palamanu.

Mambhum ..	40,300	40,600	40,600	6	7	The heavy rains were injurious to cotton. At the Sadar the outturn is estimated at 8 annas on an average, and in the Gobindpur sub-division at 6 annas.
Singhbhum ..	23,000	10,413	10,413	13	11	The area sown this year is equal to that of last year, but the little decrease in outturn of this year is due to the excessive rainfall.
Total for the cotton-growing districts above entered.	63,300	51,013	51,013	19	18	

## FINAL REPORT ON THE BHADOI CROPS, 1893.

The following is published for general information.

REVENUE DEPARTMENT,  
The 19th December, 1893.

C. E. BUCKLAND,  
Secy. to the Govt. of Bengal.

## DEPARTMENT OF LAND RECORDS AND AGRICULTURE, BENGAL.

*Final Report on the Bhadoi crops, 1893.*

*Character of the season.*—The yield of the *bhadoi* or *aus* crops is, generally speaking, determined by the rainfall of the period from April to September, and especially by the rainfall from the middle of May onwards. The earlier months of the present year, namely, from January to April, were unusually wet, and although the frequent and abundant showers which fell during this period were favourable on the whole to the preliminary operations of cultivation, they prevented much of the low-lying areas from being brought under cultivation. During May and June, when the sowing and weeding operations were in progress, the weather was unfavourable. Except in a few districts of North Bengal and North Bihar: the rainfall during these months was exceedingly heavy, and the growth of the young crops was checked in consequence; while in some parts the crops in low-lying lands suffered from accumulation of water. In July, again, the rainfall was above the normal, except in Orissa and South-West Bengal. During August the rainfall was generally short of the normal, but September was marked again by exceedingly heavy rainfall, except in some of the Eastern districts. Excessive rain was, therefore, a marked characteristic of the last monsoon season, and the mischief thereby caused to the *bhadoi* crops was aggravated by floods in many districts of Eastern Bengal and in parts of Darbhanga, Muzaffarpur, Champaran and Cuttack.

2. *Area sown.*—The total area cropped with *bhadoi* crops this year appears from the appended returns to have been 15,650,099 acres against 15,963,824 acres estimated to have been sown last year. Out of the total area cropped this year, *bhadoi* paddy occupied about 7,300,000 acres or about 46 per cent., and maize and millets nearly three million acres or about 20 per cent. Taking the Provinces as a whole, the total area sown with *bhadoi* crops this year does not seem to have been much below that of last year. The localities where the area sown was returned as considerably short of that sown last year were shown in a statement appended to the first forecast of the *bhadoi* crops issued on the 24th September last.

3. *Estimated outturn of the crops.*—The *bhadoi* food crops, including paddy, maize and millets, have been more or less damaged by excessive rainfall in almost every district in Bengal, and in some districts in East Bengal, and parts of Cuttack and North Bihar, by floods also. It will appear from the

\* Bankura, Birbhum, Sadar (Hooghly), Basirhat (24 Parganas), Ranaghat (Nadia), Dinajpur, Kanchgram and Gaidbanda (Rangpur), Jauharpur (Chymnangh), Gopalguni (Saharun), Madhupura (Bhuzpur), Furrea, Maba, and Kaurda (Puri).

appended returns that only a few districts\* or sub-divisions have reported a full or more than a full crop. A statement is annexed to this report showing the sub-divisions in which the food crops have suffered to the extent of eight annas and upwards.

The outturn of the *bhadoi* food-crops in these Provinces may be estimated at about  $\frac{1}{5}$ ths of an average or 16 annas outturn, at which it was estimated in the first forecast, dated the 24th September 1893. The estimates of outturn now returned for several sub-divisions are found to vary from those stated in their preliminary forecasts, but the variations, though large in case of a few sub-divisions, do not appreciably affect the preliminary estimate of outturn for Bengal as a whole. The *bhadoi* crops of this year have been much poorer than those of the last year, which were estimated at fully 16 annas.

CALCUTTA,  
The 7th December 1893.

B. C. BASU,  
Assistant to Director of Land Records  
and Agriculture, Bengal.

W. C. MACPHERSON,  
Offg. Director of the Dept. of Land Records  
and Agriculture, Bengal.

APPENDIX I.  
Final Report on the Bhadoi crops, 1898.

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 16 annas to represent the average outturn, how many annas represented outturn in last year?	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Burdwan	Sadar	794,880	635,500	Bhadoi paddy .. Ditto pulse .. Jute .. Heap .. Ful (kinsely) .. All bhadoi crops	64,480 2,450 450 450 758 501	75,738 1,658 352 450 610	84,480 2,000 450 450 501	...	...	Owing to seasonable rains, the outturn of bhadoi crop was fairly good this year.	
	Total	734,580	635,500	Bhadoi paddy	...	75,738	84,480	...	...		
	Kalna	270,150	224,500	Bhadoi paddy	...	64,600	64,600	...	...	Excessive rains before harvest injured the crops. 10,000 acres were actually sown in jute in this sub-division.	
	Total	270,480	224,500	Jute .. Indigo .. All bhadoi crops	...	10,000 4,000	10,000 4,000	...	...		
								...	...		

1	2	3	4	5	6	7	8	9	10	11	12
DISTRICT.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 10 acres to represent the average outturn, how many acres represented outturn last year?	Taking 10 acres to represent the average outturn, how many acres will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Burdwan- concd	Katwa ..	235,280	16,190	Bhadoi paddy .. Jute .. Hemp .. Indigo .. Til (gingelly) ..	20,450 4,000 520 100 40	20,450 4,000 520 100 40	20,450 4,000 520 100 40	Taking 10 acres to represent the average outturn, how many acres represented outturn last year?	Taking 10 acres to represent the average outturn, how many acres will represent this year's outturn?	The seasonable rain during the sowing season improved the prospect of bhadoi crops this year; but the rainfall was rather too heavy for a good outturn.  The rainfall having commenced in time, increased area over that cultivated last year could be sown. The estimate now framed is below the average, which is due to excessive rainfall.	
	Total ..	235,280	168,620	All bhadoi crops ..	21,250	21,250	21,250	12	14		
	Baniganj ..	420,440	244,700	Bhadoi paddy .. Indian-corn (maize) .. Bhadoi pulse .. Jute .. Cotton .. Hemp .. Til (gingelly) .. Miscellaneous (not included in the above)	25,000 3,000 5,000 500 200 2,000 1,500	1,000 8,000 4,800 100 140 1,800 3,000 500	2,500 8,000 4,800 100 140 1,800 3,000 500	6	12		
	Total ..	420,440	254,700	All bhadoi crops ..	1,020	14,400	15,500	10	12		
	Whole district...	1,725,080	1,253,500	Bhadoi paddy .. Indian-corn (maize) .. Bhadoi pulse .. Jute .. Cotton .. Hemp ..	171,160 3,000 7,400 11,100 200	150,245 3,000 6,900 10,950 144	171,480 3,000 6,900 10,950 170	94	13		
					2,750	2,090	2,410	1.4	1.4		





1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each <i>bhadai</i> crop in acres.	Approximate area under each of the last year's <i>bhadai</i> crops in acres.	Estimated area under each of this year's <i>bhadai</i> crops in acres.	Taking 10 annas to represent the average outturn how many annas represented outturn last year?	Taking 10 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Barbham ...	Salar ...	700,120	290,000	Bhadai paddy ... Indian-corn (maize) ... Cotton ... Hemp ... All (gingelly) ...	87,000 1,000 100 800 900	97,000 1,000 100 800 900	101,200 1,000 100 800 900	Annas. 13	Annas. 13	The rainfall throughout the agricultural period was generally for the first time, the average being 101.2 inches, which is very high and the crops harvested may be considered safe.	
	Total ...	700,120	290,000	All <i>bhadai</i> crops	98,000	98,000	105,300	16	15		
	Rampur Hat ...	412,180	169,000	Bhadai paddy ... Indian-corn (maize) ... Cotton ... Hemp ... All (gingelly) ...	55,000 800 400 800 800	55,000 800 400 800 800	60,500 800 400 800 800	15	19		
	Total ...	412,180	169,000	All <i>bhadai</i> crops	57,400	57,400	63,900	15	18		
Whole district.		1,112,300	459,000	Bhadai paddy ... Indian-corn (maize) ... Cotton ... Hemp ... All (gingelly) ...	150,000 2,000 1,300 1,500 1,500	150,000 2,000 1,300 1,500 1,500	155,000 2,000 1,300 1,500 1,500	16	18		
		1,112,300	459,000	All <i>bhadai</i> crops	156,000	156,000	171,700	15	18		
	District Total ...	1,112,300	459,000	All <i>bhadai</i> crops	156,000	156,000	171,700	15	18		

Midnapore ... Sadar ...	2,051,290	1,239,100	Bhadol paddy	65,400	75,400	8	12
			Indian-corn (maize) ...	32,000	24,000	15	12
			Bhadol pulse	3,100	4,000	9	10
			Jute	4,900	4,900	10	10
			Cotton	4,200	4,200	7	9
			Hemp	1,100	2,300	8	10
			Indigo	34,900	34,900	6	6
			Til (gingelly) ...	21,400	21,400	12	12
			Miscellaneous (not included in the above.)	9,500	7,500	12	12
Total	2,051,290	1,239,100	All bhadol crops	266,900	175,000	9	10
Tamluk	373,100	575,600	Bhadol paddy	6,200	4,300		
			Bhadol pulse	1,400	1,400		
			Jute	3,600	3,400		
			Cotton	1,200	1,000		
			Hemp	2,500	2,500		
			Indigo	100	100		
			Til (gingelly) ...	700	700		
			Miscellaneous (not included in the above.)	1,700	1,400		
Total	373,100	575,600	All bhadol crops	17,300	14,900	13	10
Contai	563,540	456,300	Bhadol paddy	7,300	7,200	7	7
			Bhadol pulse	2,500	2,500	11	8
			Jute	6,700	2,700	12	8
			Cotton	3,500	2,000	4	4
			Hemp	3,700	2,200	13	8
			Til (gingelly) ...	3,000	1,500	11	6
Total	563,540	456,300	All bhadol crops	34,500	18,400	11	64

The output of bhadol paddy has been estimated in the preliminary forecast, but the other crops were overestimated.

The figure 400 shown in the preliminary forecast was a mistake. The correct figure is now shown.

1	2	3	4	5	6	7	8	9	10	11	12
DISTRICT.	Sub-division.	Total area of sub-division in acres.	Total area cultivated in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 16 annas to represent the average outturn, how many annas represented outturn last year?	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Midnapore— <i>contd.</i>	Ghats!	231,240	146,500	Bhadoi paddy ..	14,100	14,100	14,100	Annas 10	Annas 14		
				Jute ..	140	...	160	...	12		
				Indigo ..	600	...	600	...	16		
	Total ..	231,240	146,500	All bhadoi crops ..	14,800	14,700	14,800	13	12		
	Whole district ..	3,252,480	2,111,500	Bhadoi paddy ..		83,400	100,800	10	11		
				Indian-corn (maize) ..		32,000	24,000	16	12	The explanation given in the preliminary forecast holds good.	
				Bhadoi pulse ..	330,900	8,500	7,500	11	9		
				Jute ..		13,000	11,100	12	11		
				Ratoon ..		9,300	7,200	3	8		
				Hemp ..		8,300	7,300	12	15		
				Indigo ..		85,300	53,800	12	10		
				Miscellaneous (not included in the above) ..		2,100	23,600	12	3		
				All bhadoi crops ..		238,100	226,000	11	10		
District Total		3,252,480	2,111,500		832,800	238,100	226,000				

Hooghly	Sadar	282,590	173,900	Bhadai paddy Jute	21,990 13,000	18,000 13,000	21,800 14,000	5 12	16 12	Rainfall was sufficient and timely. Therefore the outturn expected has been realized	
	Total	282,590	176,500	All bhadoi crops	85,380	82,000	85,960	10	14		
Serampore		219,820	160,000	Bhadai paddy Jute Miscellaneous* (not in- cluded in the above).	17,535 1,370 507	11,717 961 169	13,998 1,070 167	12 16 15	19 8 8	* Sunn-hemp	
	Total	219,820	165,000	All bhadoi crops	19,390	12,867	14,520	15	9		
Jahanabad		250,820	167,680	Bhadai paddy Milleta Bhadai pulse Jute Cotton Hemp Indigo Til (gingelly) Miscellaneous (not in- cluded in the above).		13,345 1,550 1,541 55,450 1,420 620 1,850	10,186 806 890 33 590 800 .....	10 10 10 10 10 10 10	10 10 10 10 10 10 .....		
	Total	280,339	167,68	All bhadoi crops	55,680	27,865	16,071	10	10		
Hemra		109,440	68,700	Bhadai paddy Indian-corn (maize) Bhadai pulse Jute Hemp Til (gingelly) Miscellaneous (not in- cluded in the above).		1,042 330 4,804 11,230 350 1,181 922	601 220 2,374 350 350 2,238	12 12	10		
	Total	109,440	68,700	All bhadoi crops	11,320	6,743	6,607	12	10		
Ulubaria		193,920	8,000	Bhadai paddy Jute	12,000 4,000	4,500 1,300	4,500 1,750	10 10	8		
	Total	193,920	123,000	All bhadoi crops	16,000	6,400	6,300	10	8		

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crops.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 14-annas to represent the average outturn, how many annas represented outturn last year?	Taking 10-annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Hooghly— contd.	Whole district...	1,089,080	709,240	Bhadoi paddy Millets ... Indian-corn (maize) ... Bhadoi pulse ... Jute ... Cotton ... Hemp ... Indigo ... Til (singeilly) ... Miscellaneous (not included in the above).	137,920	48,638 1,336 80 2,316 29,325 137,920 1,800 1,109 1,901 2,912 4,638	56,270 100 2,316 29,325 137,920 1,800 1,109 1,901 2,912 4,638	Annas. Annas. 10 10 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11			
	District Total ...	1,089,080	702,340	All bhadoi crops	137,920	80,576	79,358	11	10		
	Sadar ...	680,506	462,700	Bhadoi paddy Jute ... Hemp ...	34,000 4,400 3,340	4,390* 6,400 1,700	28,000 6,800 2,000	14	6		
	Total ...	680,506	462,700	All bhadoi crops	41,340	12,490	36,860	14	6		
24 Parganas	Barasat	313,600	189,400	Bhadoi paddy Jute ...	49,800 28,300	86,890 13,300	33,900 13,600	19 12	19 8	The decrease in the outturn is due to excessive rainfall	
	Total ...	313,600	189,400	All bhadoi crops	68,100	51,590	49,100	12	19		

\* This figure is very improbable. No explanation has been offered by the Collector why it should be so low as compared with the normal and this year's areas.

Baanhat	332,820	281,000	Bhadol paddy Jute	25,700 17,400	28,800 17,500	25,700 17,400	12 10	14	8
Total	332,820	281,000	All bhadoi crops	43,100	46,100	43,100	14	12	
Diamond Har- bour	325,320	280,000	Bhadol paddy Jute	3,200 1,300	3,200 1,400	3,200 1,800	14 16	4 4	
Total	325,320	280,000	All bhadoi crops	4,500	4,600	4,500	15	4	
Whole district	1,671,625	1,223,000	Bhadol paddy Jute Hemp	104,700 33,400 2,500	72,900 40,800 1,700	87,500 41,100 2,000	12 13 13	10 8 6	
District Total	1,671,625	1,223,000	All bhadoi crops	106,600	114,800	120,000	12	8	
Sadar	1,006,325	503,400	Bhadol paddy Jute Miscellaneous (not included in above)	93,600 7,200 1,300	6,100 6,300 1,200	2,400 6,400 1,300	12 12	10	Excessive rains have damaged the crops to some extent.
Total	1,006,325	503,400	All bhadoi crops	18,800	13,100	13,300	12	10	
Sodkhra	514,612	290,200	Bhadol paddy Jute Miscellaneous (not included in above)	47,100 32,500 1,000	40,000 20,000 1,000	30,000 42,000 1,000	14 14	12	Excessive rains have damaged the crops to some extent.
Total	514,612	290,200	All bhadoi crops	24,700	19,000	25,000	14	12	
Ragerhat	935,222	277,100	Bhadol paddy Jute Miscellaneous (not included in above)	30,600 6,400 3,500	30,600 6,400 2,200	31,000 6,400 1,800	14 14 14	2 4 14	Excessive rains have damaged the crops particularly paddy and jute.
Total	935,222	277,100	All bhadoi crops	41,400	41,400	41,400	14	14	

		2	3	4	5	6	7	8	9	10	11	12
District.		Sub-division	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 10 annas to represent the average outturn how many annas represented outturn last year?	Taking 10 annas to represent the average outturn how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Khurda	Whole district...	3,103,942 4	570,000	Bhadoi paddy Bhadoi pulse Jute Til (singelly) Miscellaneous (not included in the above)	59,400 8,200 92,500 4,200 3,100	41,000 2,000 19,400 4,200 8,100	45,500 8,200 21,300 4,200 8,100	Annas. 14 14 14 14 14	Annas. 14 14 14 14 14	All the crops have been more or less damaged by the heavy and excessive rains.		
	District Total ...	3,103,942 4	570,000	All bhadoi crops	59,400	41,000	45,500	14	14			
	Sadar ...	497,920	362,525	Bhadoi paddy Millet Jute Induro Til (singelly) Miscellaneous (not included in the above)	69,300 38 5,000 9,200 1,200 100	65,300 35 2,340 9,200 1,200 100	60,300 36 2,101 9,200 1,016 100	15 15 11 6 8 14	12 10 9 6 6 10			
Nadia	Total ...	497,920	361,925	All bhadoi crops	69,300	62,776	62,443	11	9			



Kushies	352,050	275,416	Bhadai paddy ... Jute Indigo Til (grainely) Miscellaneous (not in- cluded in the above)	46,500 22,000 10,500 3,000 300	47,500 22,000 10,500 3,000 300	40,000 22,000 10,500 3,000 300	13 12 12 12 12	5 5 5 5 5
Total	352,050	275,416	All bhadoi crops	97,800	98,300	91,800	11	8
Meharpur	634,880	462,625	Bhadai paddy ... Jute Indigo Til (grainely) Miscellaneous (not in- cluded in the above)	120,000 1,000 8,000 1,100 20,300 1,200 33,000	120,000 1,000 8,000 1,100 20,300 1,200 33,000	95,000 1,000 8,000 1,100 16,500 1,200 26,000	14 12 12 11 11 11 11	9 8 8 8 8 8 8
Total	634,880	462,625	All bhadoi crops	180,200	181,200	125,000	11	7
Ranaghat	273,290	192,134	Bhadai paddy ... Jute Indigo Til (grainely) Miscellaneous (not in- cluded in the above)	85,200 17,000 6,100 3,800 26,000	85,200 17,000 6,100 3,800 26,000	92,500 17,000 6,100 3,800 26,000	10 10 8 14 14	15 12 9 10 14
Total	273,290	192,134	All bhadoi crops	78,100	77,000	73,000	14	13
Whole district	1,785,100	1,303,000	Bhadai paddy ... Jute Indigo Til (grainely) Miscellaneous (not in- cluded in the above)	297,800 1,000 47,000 1,100 52,100 9,200 60,900	298,800 1,000 46,900 1,100 52,100 9,200 60,900	220,500 1,000 46,000 1,100 48,000 8,200 52,400	16 10 11 13 12 12 14	11 10 8 9 5 10 11
District Total	1,785,100	1,303,000	All bhadoi crops	430,430	430,366	350,273	12	9

The excessive rains and flood affected the crops in a large tract of land, hence the difference between the figures shown in this report and that reported in the preliminary fore- cast against bhadoi paddy, indigo and miscellaneous crops.

The abnormal rainfall during plough- ing and sowing season affected the area under bhadoi crops, and the return of jute, indigo and paddy. The rains and cloudy weather at the manufacturing season affected the return of indigo to a large extent.

1	2	3	4	5	6	7	8	9	10	11	12
DISTRICT.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each bhado crop in acres.	Approximate area under each of the last year's bhado crops in acres.	Estimated area under crops of this year's bhado crops in acres.	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn?	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the De- putant of Land Records and Agricul- ture, Bengal.
Tessore	Sub-division	568,450	534,000	Bhado paddy Hemp Miso, cereals (not in- cluded in the above)	132,200 800 1,000 800	1,35,700 800 1,000 800	120,000 100 800 600	18 12 13 16	12 12 13 16	The decrease in area sown with bhado paddy, hemp, and cereals, in 1893 is due to heavy rainfall at the sowing season. The decrease in outturn is due to injury caused to the crops by heavy and excessive rain during the season. The area under bhado paddy is due to the fact that the area has nearly grown with a rice which has ceased to be cultivated, is now brought under cultivation of this crop.	The area and outturn are less than those of the previous year owing to excessive rainfall in May and June.
	Total	568,450	534,000	All bhado crops	132,200	1,35,700	120,000	18	12		
	Magura	272,000	171,250	Bhado paddy Hemp Miso, cereals (not in- cluded in the above)	80,000 800 1,000 800	80,000 800 1,000 800	75,000 100 800 600	15 12 13 16	12 12 13 16		
Total		272,000	171,250	All bhado crops	80,000	80,000	75,000	15	12		

Jhenida	...	304,000	204,800	Bhadol paddy Jute Indigo Til (gingelly) Miscellaneous (not in- cluded in the above.)	18,000 10,000 12,028 500 500	16,000 10,000 12,028 500 500	16,000 10,000 12,028 500 500	20 16 10 6 14	8 8 6 5 12	On account of constant rains the out- turn of crops has fallen much below the average and last year's.
Total	...	304,000	204,800	All bhadoi crops	39,025	59,025	39,025	13	8	The decrease in area under jute is due to increase in the area under til, the cultivation of the latter crop having been facilitated by favourable rain-fall at the sowing season. The fall in the outturn of bhadoi paddy and jute is due to injury done to the crops by incessant rains and early rising of the rivers.
Narail	...	311,680	187,520	Bhadol paddy Jute Til (gingelly) Miscellaneous (not in- cluded in the above.)	17,920 19,248 9,300 9,800	17,920 19,200 9,600 9,800	17,920 19,200 9,600 9,800	15 16 10 10	6 6 10 8	
Total	...	311,680	187,520	All bhadoi crops	56,920	56,920	56,920	14	8	
Bangson	...	415,320	248,960	Bhadol paddy Bhadol pulse Jute Indigo Til (gingelly) Miscellaneous (not in- cluded in the above.)	105,000 8,634 2,320 (a) 13,717 4,335 8,000	120,000 8,000 7,080 (a) 13,444 2,000 5,000	80,000 6,000 7,400 2,900 4,000 5,000	16 12 16 8 6 6	12 4 4 8 8 8	
Total	...	415,320	248,960	All bhadoi crops	139,017	156,124	103,500	11	8	The figures shown in columns 6 and 7 represent the difference between the final forecast of 1892, given to revision based on minute and careful enquiry. The area sown this year with bhadoi paddy, bhadoi pulse and indigo are below normal and last year's sowing to excessive rain at the sowing season. The slight increase in the area under jute over last year's calls for no explanation, but the decrease as compared with normal is attributed to heavy rains. The area under til is larger than in the preceding year, but below normal. The decrease may be attributed to the sowing of this crop. The decrease in the area under miscellaneous crops as compared with normal may be attributed to the heavy rainfall of the year. The fall in the outturns of bhadoi paddy, bhadoi pulse, jute, and indigo is attributed to excessive and incessant rain which destroyed the young plants or stunted their growth. The slight increase in the outturns of til and miscellaneous crops call for no comment.

1	2	3	4	5	6	7	8	9	10	11	12
DISTRICT.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 16 annas to represent the average output, how many annas represented output last year?	Taking 16 annas to represent the average output, how many annas will represent this year's output?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Jessore— concd.	Whole district...	1,872,000	1,116,800	Bhadoi paddy ... Bhadoi pulse ... Jute ... Hemp ... Indigo ... Til (singelly) ... Miscellaneous (not included in the above.)	314,564 8,654 41,890 1,100 17,792 16,066 19,960	332,293 8,654 41,160 10,160 12,164 13,700 10,050	350,000 8,000 24,400 16,400 16,800 26,900 12,400	Areas: 13 13 16 16 10 6 13	Areas: 10 8 7 8 4 8 19		
	District Total...	1,872,000	1,116,800	All bhadoi crops ...	418,243	435,300	375,432	13	9		
Murshidabad	Sadar ...	586,240	385,136	Bhadoi paddy ... Indian-corn (maize) ... Bhadoi pulse ... Jute ... Cotton ... Indigo ... Til (singelly) ... Miscellaneous (not included in the above.)	160,640 1,280 12,760 12,000 850 32,400 4,780 3,580	160,640 1,280 12,760 12,000 850 30,400 4,780 3,580	164,492 1,280 13,250 219 30,810 6,880 1,940	16	12		
	Total ...	586,240	385,136	All bhadoi crops ...	216,940	216,640	218,967	16	12		

Jangipur ...	...	380,100	310,617	Bhadol paddy ...	...	73,600	73,600	73,450	14
				Millet ...	...	1,994	1,994	1,994	12
				Jute ...	...	16,080	16,080	16,080	16
				Indigo ...	...	21,830	21,830	21,830	16
				Til (gingelly) ...	...	3,200	3,200	3,200	12
Total ...	...	380,100	310,617	All bhadoi crops	...	115,400	115,400	115,170	13
Kandi ...	...	405,750	279,735	Bhadol paddy ...	...	14,315	14,315	14,315	14
				Indian-corn (maize) ...	...	10	10	10	8
				Bhadol pulse ...	...	2,323	2,323	2,120	10
				Jute ...	...	791	791	690	12
				Cotton ...	...	782	782	665	12
				Hemp ...	...	3,260	3,260	2,360	12
				Indigo ...	...	40	40	50	12
				Til (gingelly) ...	...	443	443	400	12
				Miscellaneous (not included in the above)	...	...	...	...	16
Total ...	...	405,750	279,735	All bhadoi crops	...	27,419	26,130	26,935	12
Whole district...	...	1,372,100	925,548	Bhadol paddy ...	...	254,065	256,805	256,687	14
				Millet ...	...	330	330	1,989	12
				Indian-corn (maize) ...	...	3,603	3,603	3,353	12
				Bhadol pulse ...	...	30,451	30,561	29,800	12
				Jute ...	...	783	783	673	12
				Cotton ...	...	53,850	53,850	50,530	12
				Hemp ...	...	9,370	9,370	9,530	12
				Indigo ...	...	3,963	3,963	2,240	12
				Miscellaneous (not included in the above)	...	...	...	...	12
District Total ...	...	1,372,100	925,548	All bhadoi crops	...	362,779	361,629	364,463	12
Sadar ...	...	2,080,000	1,377,600	Bhadol paddy ...	...	101,100	101,100	101,100	18
				Jute ...	...	78,600	78,600	78,600	18
Total ...	...	2,060,000	1,377,600	All bhadoi crops	...	179,700	179,700	179,700	18
Thakurgaon ...	...	554,880	367,400	Bhadol paddy ...	...	26,000	26,000	26,000	18
				Jute ...	...	20,800	20,800	20,800	18
Total ...	...	554,880	367,400	All bhadoi crops	...	47,800	47,800	47,800	18
Whole district...	...	2,634,880	1,745,000	Bhadol paddy ...	...	128,000	128,000	128,000	18
				Jute ...	...	96,500	96,500	96,500	18
District Total ...	...	2,634,880	1,745,000	All bhadoi crops	...	227,500	227,500	227,500	18

The increase in area under cultivation is attributable to the favourable rains during the sowing time, whereas the decrease in outturn of the bhadoi crops is due to excessive rainfall and early rise of the river.

Dinajpur ...

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each <i>bhadol</i> crop in acres.	Approximate area under each of the last year's <i>bhadol</i> crops in acres.	Estimated area under each of this year's <i>bhadol</i> crops in acres.	Taking 16 annas to represent the average outturn, how many annas represented outturn last year?	Taking 10 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Rajshahi	Sadar	631,152.4	386,700	Bhadol paddy ... Jute ... Til (gingelly) ... Miscellaneous (not included in the above).	35,368 35,384 3,000 700	35,598 35,734 3,000 700	35,063 35,321 3,000 600	Annas. 16 15 10 14	Annas. 15 15 14 14	Damage was caused to the crops by the rains of June and July	
	Total	631,152.4	386,700	All bhadoi crops	80,660	81,010	79,989	14	14		
	Nator	522,880	402,100	Bhadol paddy ... Jute ... Til (gingelly) ... Miscellaneous (not included in the above).	35,106 34,781 754 300	36,000 35,133 774 800	35,103 34,791 754 800	14 14 16 12	12 12 12 14	The excessive rainfall at the time of cultivation as also at the time when the plants were coming out damaged the outturn.	
	Total	522,880	402,100	All bhadoi crops	71,001	66,507	71,001	14	14		
	Nowgong	385,920	297,100	Bhadol paddy ... Jute ... Hemp ... Til (gingelly) ... Miscellaneous (not included in the above).	34,736 34,335 1,000 1,170 5,200	34,700 34,500 1,000 900 5,200	34,600 30,400 1,000 300 3,000	13 18 10 12 16	14 10 16 4 16	The decrease in area is due to excessive rainfall.	
	Total	385,920	297,100	All bhadoi crops	76,371	75,900	68,300	14	12		

Whole district...	1,530,022 4	1,085,900	Bhadol paddy ... Jute ... Hemp ... Indigo ... Til (gingelly) ... Miscellaneous (not in- cluded in the above).	105,500 104,500 105,407 1,100 9,600 1,024 5,505	104,236 100,102 100,102 1,100 9,600 1,554 3,385	12 16 12 10 10 13 13	
District Total ..	1,530,022 4	1,085,900	All bhadoi crops	228,631	223,117	14	13
Sadar	730,246	486,800	Bhadol paddy ..  Milleta .. Indian-corn (maize) .. Bhadol pulse .. Jute .. Indigo .. Til (gingelly) .. All bhadoi crops	30,100  5,500 100 7,600 67,200 6,700 1,900 115,100	30,200  5,240 100 7,600 60,900 4,900 2,000 121,600	15  12 16 4 16 18 9 12 15	
Nilphamari	414,720	275,800	Bhadol paddy ...  Bhadol pulse ... Jute ... Hemp ... Indigo ... All bhadoi crops	64,000  3,100 20,000 2,000 131,100	73,000  3,127 21,000 2,103 160,316	14  15 14 8 12 14	
Kurigram	550,680	409,900	Bhadol paddy ...  Jute ... Miscellaneous (not in- cluded in the above).	117,300  57,900 94,900	117,300  57,900 94,600	12  11 16	
Total	680,680	468,900	All bhadoi crops	229,600	229,600	13	15

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under crops of this year's bhadoi crops in acres.	Taking 16 minus to represent the average outturn, how many annas represented outturn last year?	Taking 16 minus to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Rangpur— consd.	Gabanda	198,400	371,290	Bhadoi paddy ..	64,636	64,700	64,960	Annas 14	Annas 16	The price of winter rice was high last year. People naturally turned their attention to food-crops, but unseasonable weather interfered with their growth. The outturn was better, however, than at first feared. The estimated outturn of rain did not materialize, and the bhadoi crop is being sown late. The outturn of the bhadoi crop for the lands being water-logged the year would have been still more plentiful. Very little indigo is grown in the district. The excessive rains did not harm the rice crop so badly as was feared at first. There is an increase in area under this year's bhadoi crops owing to a large quantity of land having been utilized for growing bhadoi paddy owing to the high price of rice during the previous year.	The outturn of Jute was estimated in the final Jute Report at 14 annas. It is now estimated at 15 annas.
	Total ..	450,130	571,290	Jute .. ..	51,500	51,200	51,200	15	18		
	Whole district...	2,31,640	1,092,700	All bhadoi crops ..	115,200	115,200	115,200	14½	17		
				Bhadoi paddy ..	275,400	283,400	285,100	14½	16		
				Millers .. ..	5,500	...	5,500	...	12		
				Indian-corn (maize) ..	100	...	100	...	15		
				Bhadoi pulse .. ..	12,700	12,727	12,700	7	13		
				Jute .. ..	26,430	26,430	26,430	13	15		
				Indigo .. ..	1,700	1,503	6,600	5	16		
				Til (sesamum) .. ..	1,300	1,300	2,000	3	12		
				Miscellaneous (not included in the above).	44,600	44,600	44,600	16	12		





1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 16 annas to represent the average outturn, how many annas represented outturn last year?	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Darjeeling	Sadar, including Kalimpong.	404,640	61,400	Bhadoi paddy. Millet. Indian-corn (maize). Miscellaneous (not included in the above).	2,900 17,700 17,600 9,100	2,900 17,700 17,600 9,100	9,400 5,400 22,100 4,400	12 13 13 12	11 11 14 14	The increase in area is due to cultivation fluctuations in the culture. Owing to sufficient and seasonable rainfall the outturn is expected to be better this year.	
	Total	404,640	61,400	All bhadoi crops	32,600	32,600	27,900	12	14		
Kurseong		118,400	12,900	Bhadoi paddy. Indian-corn (maize). Miscellaneous (not included in the above).	1 8 6	1 8 6	1 8 6	14 14 13	14 14 13		
	Total	118,400	12,900	All bhadoi crops	13	13	13	13	13		
Siliguri		161,920	115,200	Bhadoi paddy. Indian-corn (maize). Jute. Til (sesamum). Miscellaneous (not included in the above).	29,400 100 13,800 75 23	29,200 100 13,800 75 22	29,300 100 13,800 73 23	14 16 12 16 12	15 16 10 10 12	The increase in the area for bhadoi paddy is due to ordinary fluctuation in cultivation. Rainfall being sufficient and well distributed, the outturn has been better, but the outturn of jute will be less as the rains were excessive at the time of sowing.	
	Total	161,920	115,200	All bhadoi crops	43,400	43,200	43,300	14	13		

Jalpaiguri	Whole district...	744,960	189,400	Bhadai paddy ... Wheat ... Indian-corn (maize) ... Jute ... Til (gingelly) ... Miscellaneous (not in- cluded in the above.)	32,501 17,700 17,705 13,800 75 4,431	32,101 17,700 17,705 13,800 75 4,431	53,551 5,300 22,303 13,800 75 4,031	13 14 14 15 16 13	14
	District Total ...	744,960	189,400	All bhadoi crops	76,013	75,813	76,513	13	13½
	Sadar ...	1,072,150	657,500	Bhadai paddy ... Indian-corn (maize) ... Bhadai pulse ... Jute ... Til (gingelly) ... Miscellaneous (not in- cluded in the above.)	113,000 2,000 77,500 1,000 1,000	113,005 1,000 500 53,205 .....	117,650 1,000 500 76,400 1,000	14 8 8 .....	14 16 16 12
	Total	1,072,150	657,500	All bhadoi crops	183,800	182,700	186,900	12	12
	Alipur ...	833,731	408,900	Bhadai paddy ... Jute ... Cotton ... Miscellaneous (not in- cluded in the above.)	73,700 18,700 200 200	58,700 13,900 200 200	53,700 12,900 200 200	12 8 15 12	14 16 12 12
	Total	923,731	408,900	All bhadoi crop	92,800	72,300	56,300	11	13
	Whole district...	1,825,881	965,400	Bhadai paddy ... Indian-corn (maize) ... Bhadai pulse ... Jute ... Cotton ... Til (gingelly) ... Miscellaneous (not in- cluded in the above.)	156,700 2,000 96,000 1,000 200 1,000	172,005 1,000 96,405 200 ... 200	161,350 1,000 88,300 200 1,000 200	13 8 8 16 12 12	14 10 16 12 12
	District Total ...	1,825,881	965,400	All bhadoi crops	286,600	271,000	282,600	12	12½

The increase in outturn is due to good distribution of rains.

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area cultivated to be under cultivation in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 16 annas to represent the average outturn, how many annas represented outturn last year?	Taking 16 annas to represent the average outturn how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Dacca	Badar	810,240	406,100	Bhadoi paddy Jute Til (gingelly)	62,900 191,300 12,800	62,900 191,300 12,800	62,900 191,300 12,800	Annas. 10 14 8	Annas. 6 10 7		
	Total	810,240	406,100	All bhadoi crops	227,000	201,800	214,400	101	71		
	Munshiganj	254,640	128,000	Bhadoi paddy Jute Miscellaneous (not included in the above).	22,000 15,000 27,000	17,000 14,000 20,500	15,000 14,000 21,200	12 13 12	10 9 10		
	Total	254,640	128,000	All bhadoi crops	64,000	51,500	50,200	11	9		

Faridpur ...	Karalganj ...	410,240	290,400	Bhadol paddy ... Bhadol pulse ... Jute ... Til (gingelly) ...	73,400 1,000 40,000 800	67,200 1,000 43,200 800	68,900 1,000 44,000 800	7 6 16 7	7 6 13 7
	Total ...	410,240	290,400	All bhadol crops	115,900	111,200	112,900	94	84
	Manickganj ...	312,900	234,200	Bhadol paddy ... Millet ... Jute ... Til (gingelly) ... Miscellaneous (not included in the above).	16,600 400 13,000 1,200 20,500	16,600 400 10,000 1,200 12,500	16,600 400 12,000 1,200 16,000	3 14 13 10 10	8 14 8 10 12
	Total ...	312,900	234,200	All bhadol crop	51,700	41,000	45,200	104	102
	Whole district...	1,790,080	997,700	Bhadol paddy ... Millet ... Bhadol pulse ... Jute ... Til (gingelly) ... Miscellaneous (not included in the above).	174,900 400 1,000 219,300 14,800 47,500	163,700 400 500 193,300 14,300 32,400	162,500 400 500 208,700 14,800 37,300	94 10 7 134 84 11	74 14 8 94 84 11
	District Total ...	1,790,080	997,700	All bhadol crops	457,900	405,200	433,000	10	94
	Sadar ...	550,400	385,300	Bhadol paddy ... Jute ... Hemp ... Til (gingelly) ... Miscellaneous (not included in the above).	131,800 22,000 300 4,000 500	130,000 22,000 300 4,000 500	101,100 20,000 100 500 500	12 13 14 10 14	6 5 5 4 4
	Total ...	550,400	385,300	All bhadol crops	164,800	129,500	132,000	134	5
	Goalundo ...	273,920	205,400	Bhadol paddy ... Millet ... Jute ... Indigo ... Til (gingelly) ...	112,400 100 20,000 1,000 600	90,600 100 20,000 820 600	84,300 100 20,000 1,000 600	14 14 15 14 10	8 6 5 5 5
	Total ...	273,920	205,400	All bhadol crops	134,100	112,400	100,000	14	7

Owing to high floods, aus in low lands has to some extent been damaged. Owing to constant rain and high floods the outturn of jute was less than last year.

The outturn of jute was worse than as it was expected at first (13 aunes).

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated for the under-cultivation in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 16 annas to represent the average outturn, how many annas represented outturn last year?	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the De-puty Commissioner of Land Records and Agricul-ture, Bengal.
Faridpur-- consd.	Madaripur	628,568	416,500	Bhadoi paddy .. Jute .. Til (gingelly) ..	98,000 40,000 17,999	41,000 40,000 9,999	64,000 40,000 10,000	Annas. 16 8 12	Annas. 16 8 12		
	Total	628,568	416,500	All bhadoi crops	145,000	91,300	114,000	15	8		
	Whole district	1,450,599	1,007,500	Bhadoi paddy .. Mulleys .. Jute .. Hemp .. Indigo .. Til (gingelly) .. Miscellaneous (not in-cluded in the above).	343,450 85,000 85,000 300 1,000 14,800 700	232,480 160 85,000 300 820 14,200 500	249,400 160 86,000 1-4 1,000 11,100 8-6	14 14 15 14 14 10 14	8 8 7 5 5 8 4		
	District Total	1,450,599	1,007,500	All bhadoi crops	444,750	333,480	342,400	15	6		
Backergunge	Sadar	711,940	446,700	Bhadoi paddy .. Jute ..	100,700 6,200	82,800 6,200	82,500 6,200	14 14	2 10		
	Total	711,940	446,700	All bhadoi crops	106,900	89,000	88,000	14	6		

Mysore	Fatnabali	...	787,540	3,00,000	Bhadai paddy	...	23,400	29,400	29,400	10	9
	Total	...	787,540	3,20,200	All bhadoi crops	...	23,400	29,400	29,400	10	8
Pirojpur		...	442,680	320,200	Bhadai paddy	...	57,600	57,600	57,600	14	8
	Total	...	442,680	321,200	All bhadoi crops	...	57,600	57,600	57,600	14	8
Bhola		...	303,600	256,100	Bhadai paddy	...	93,500	93,500	93,500	14	4
	Total	...	303,600	256,100	All bhadoi crops	...	93,500	93,500	93,500	14	4
Whole district		...	2,385,560	1,343,200	Bhadai paddy	...	283,500	283,500	283,500	14	5
	Total	...	2,385,560	1,343,200	All bhadoi crops	...	283,500	283,500	283,500	14	5
District Total		...	2,385,560	1,343,200	Bhadai paddy	...	283,500	283,500	283,500	14	5
	Total	...	2,385,560	1,343,200	All bhadoi crops	...	283,500	283,500	283,500	14	5
Sadar		...	1,183,360	686,800	Bhadai paddy	...	73,000	73,000	73,000	10	8
	Total	...	1,183,360	686,800	All bhadoi crops	...	73,000	73,000	73,000	10	8
Tangail		...	608,218	531,023	Bhadai paddy and til	...	128,023	128,023	128,023	13	13
	Total	...	608,218	531,023	All bhadoi crops	...	128,023	128,023	128,023	13	13
Netrokona		...	608,218	531,023	Bhadai paddy	...	75,000	75,000	75,000	8	8
	Total	...	608,218	531,023	All bhadoi crops	...	75,000	75,000	75,000	8	8
Total		...	908,400	321,500	Bhadai paddy	...	128,023	128,023	128,023	13	13
	Total	...	908,400	321,500	All bhadoi crops	...	128,023	128,023	128,023	13	13

The heavy and very frequent rainfall and the unusual rise of waters have affected the crops very seriously, and hence the bad outturn. Current year's average outturn shown in the preliminary forecast against Bhola sub-division is on special enquiry found to be below the actual correct outturn is shown in this return.

Heavy rains and floods damaged and retarded the growth of bhadoi crops.

The heavy rains and rapid rise of waters have done some damage to the crops.

High flood has caused serious damage to the bhadoi paddy crop during the harvesting time.

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each blador crop in acres.	Approximate area under each of the last year's blador crops in acres.	Estimated area under each of this year's blador crops in acres.	Taking 10 annas to represent the average output, how many annas represented output last year?	Taking 10 annas to represent the average output, how many annas will represent this year's output?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Mymensingh—Cawdia.	Kaboreganj	470,100	224,000	Bhador paddy Jute	61,000 57,500	77,000 44,800	67,000 40,000	10 10	10 10	On May 10 the incessant heavy rain in May last, the area cultivated this year has been smaller than the normal area; but the area brought under late cultivation this year is greater than that of last year. This is owing to the high prices of jute in the market of last year. In the preliminary forecast the expected output was estimated at 10 annas, but the actual output proved to be 10 annas, as the rains did not do so much damage as was apprehended.	
	Total	470,100	224,000	All blador crops	121,000	102,800	102,000	11	10	This year's output is much better than last year's owing to the seasonable and sufficient rainfall. It had been estimated at 10 annas, but the harvest came to 10 annas, as a small portion was lost for the excessive rainfall at the time of reaping.	
	Jamalpur	517,752	627,200	Bhador paddy Millet In-lan-corn (maize) Bhador pulse Jute Cotton Hemp In-lan-corn Miscellaneous (not included in the above.)	67,700 100 25 1,250 21,000 25 100 1,250 4,000	25,000 100 25 1,250 21,000 25 100 1,250 4,000	27,000 100 25 1,250 23,000 25 100 1,250 4,000	10 10 10 10 10 10 10 10 10	10 10 10 10 10 10 10 10 10		
	Total	517,752	627,200	All blador crops	67,700	55,810	55,810	8	16		



Tippah											
Whole district...	4,032,486	2,405,083	Bhadai paddy ..	553,623	353,653	100	12	13			
			Millet ..	100	100	25	12	12			
			Indur-corn (maize) ..	58,880	58,880	25	12	12			
			Bhadai pulse ..	890,200	372,167	25	12	12			
			Jute ..	804,950	804,950	25	12	12			
			Cotton ..	1,300	1,300	25	12	12			
			Hemp ..	3,250	3,250	25	12	12			
			Til (gingelly) ..	50,100	86,150	25	12	12			
			Miscellaneous (not in- cluded in the above) ..								
District Total ..	4,032,486	2,405,083		804,950	804,950		12	12			
Sadar ..	730,550	517,800	Bhadai paddy ..	113,127	113,127	14	12	12			
			Millet ..	830	830	12	12	12			
			Bhadai pulse ..	20,557	20,557	12	12	12			
			Jute ..	103,700	103,700	25	12	12			
			Hemp ..	4,240	4,240	25	12	12			
			Til (gingelly) ..	453	453	25	12	12			
			Miscellaneous (not in- cluded in the above) ..								
Total ..	730,550	517,800	All bhadoi crops ..	138,900	138,900	124	9	9			
Chandpur ..	371,000	295,000	Bhadai paddy ..	40,000	40,000	16	16	4			
			Jute ..	64,000	64,000	17	12	12			
			Til (gingelly) ..	9,000	9,000	20	5	5			
			Miscellaneous (not in- cluded in the above) ..	16,000	16,000	10	10	10			
Total ..	371,000	295,000	All bhadoi crops ..	138,400	138,400	171	52	52			
Bra'manbaria ..	432,100	330,000	Bhadai paddy ..	57,000	57,000	16	16	8			
			Jute ..	145,145	145,145	16	10	10			
			Hemp ..	500	500	16	8	8			
			Til (gingelly) ..	955	955	16	4	4			
Total ..	432,100	330,000	All bhadoi crops ..	233,900	233,900	16	17	17			
Whole district...	1,494,240	1,167,800	Bhadai paddy ..	241,137	241,137	144	7	7	Unusual high flood and continuous rainfall have damaged the crop this year.		
			Millet ..	14	14	12	9	9			
			Bhadai pulse ..	25	25	12	10	10			
			Jute ..	23,100	23,100	16	104	104			
			Hemp ..	14,520	14,520	14	24	24			
			Til (gingelly) ..	14,801	14,801	16	7	7			
			Miscellaneous (not in- cluded in the above) ..	16,473	16,473	14	34	34			
District Total ..	1,494,240	1,167,800	All bhadoi crops ..	336,900	336,900	11	34	34			

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area in acres.	Name of crop.	Approximate normal area under each <i>bhadol</i> crop in acres.	Approximate area under each of the last year's <i>bhadol</i> crops in acres.	Estimated area under each of this year's <i>bhadol</i> crops in acres.	Taking 16 minas to represent the average outturn, how many minas represented outturn last year?	Taking 16 minas to represent the average outturn, how many minas will represent this year's outturn.	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Nookhab	Sadar	...	630,720	Bhadol paddy ... Bhadol pulse ... Jute ... Til (gingelly) ...	132,960 2,500 2,500 1,500	132,300 2,500 2,500 1,500	1,123,300 2,500 2,500 1,300	...	...	...	...
	Total	...	630,720	All <i>bhadol</i> crops	165,900	165,900	1,46,700	12	7	...	(a) Owing to heavy rainfall at the time of sowing about 4th of the area sown last year with aus paddy and <i>bhadol</i> crops was inundated.
	Fenny	...	219,520	Bhadol paddy ...	54,300	54,500	54,300	15	9	...	(b) Owing to inundation when the plauts were in flower, the outturn is expected to be shorter this year than that of the last year.
	Total	...	219,520	All <i>bhadol</i> crops	54,300	54,400	54,300	13	9	...	Owing to excessive rainfall the year's outturn has been estimated to be much less than that of the previous year.
Whole district	...	1,050,240	1,050,240	Bhadol paddy ... Bhadol pulse ... Jute ... Til (gingelly) ...	508,000 2,600 2,600 1,500	508,700 2,600 2,600 1,500	1,57,000 2,600 2,600 1,300	154 11 11 11	74 6 8 6	...	...
District Total	...	1,050,240	1,050,240	All <i>bhadol</i> crops	220,200	220,300	201,000	134	74	...	...

Chittagong...	Sadar ...	1,013,990	391,290	Bhadol paddy ..	80,400	65,563	65,563	15	9
				Indian-corn (maize) ..	50	20	20	16	16
				Cotton ..	40	22	22	14	14
				Hemp ..	13,420	18,213	18,213	14	14
				Til (gingelly) ..	800	750	750	16	16
				Miscellaneous .. (not included in the above).	810	600	600	16	16
				All bhadoi crops ..	97,700	80,400	80,400	131	14
				Total ..					
				Cox's Pazar ..	559,680	404,015	11,616	16	9
				Total ..	559,680	404,015	11,616	16	9
	Whole district	1,642,880	795,215	Bhadol paddy ..	92,216	77,170	77,170	18	9
				Indian-corn (maize) ..	50	20	20	16	16
				Cotton ..	40	22	22	14	14
				Hemp ..	15,450	18,215	18,215	14	14
				Til (gingelly) ..	800	750	750	16	16
				Miscellaneous .. (not included in the above).	810	600	600	16	16
				All bhadoi crops ..	109,316	92,019	92,016	16	14
				District Total ..					
				Whole districts	3,408,160	2,408,160	2,408,160	34	12
				Hill Tracts,				7	7
Chittagong	Hill Tracts,	3,408,160	44,800	Area under	8,800	1,700	1,700	9	12
				plough ..	32,600	17,000	17,000	94	7
				Area under	...	...	...	7	...
				plough ..	...	...	...	74	4
				Area under	...	...	...	6	4
				plough ..	...	...	...	54	4
				Area under	...	...	...	...	...
				plough ..	...	...	...	...	...
				Area under	...	...	...	...	...
				plough ..	...	...	...	...	...
Chittagong	Hill Tracts,	3,408,160	44,800	All bhadoi crops ..	35,800	18,700	18,009	71	5
				District Total ..					

The excessive rainfall in the month of June last, did great damage to the crops.

As the rain set in earlier than in previous year with occasional heavy showers causing flood and destruction of seeds, many turn cut could not be burnt. Aus paddy in many places could not be grown. Turn crops, especially cotton, suffered much from excessive rain. Hence the decreases in area and output. Revised figures are given in columns 6, 7, 8 and 9.

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area cultivated to be under cultivation in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 16 annas to represent the average outturn, how many annas represented outturn last year?	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Patna	Sadar	394,550	230,780	Millets ... Indian-corn (maize) ... Bhadoi pulse ... Cotton ... Hemp ... Indian-corn (maize) ... Til (gingelly) ... All bhadoi crops ...	7,000 22,000 800 200 200 200 200 33,000	5,333 22,000 200 167 67 100 24,433	6,333 17,333 268 133 77 70	Annas. 134	Annas. 9	The outturn this year is worse than last year on account of the floods. The less area sown is also due to the same reason and to early heavy rains.	The outturn this year is worse than last year on account of the floods. The less area sown is also due to the same reason and to early heavy rains.
	Total	394,550	230,780	All bhadoi crops	33,000	24,433	134	134	9		
	Barh	330,640	258,200	Bhadoi paddy ... Millets ... Indian-corn (maize) ... Bhadoi pulse ... Jute ... Cotton ... Hemp ... Til (gingelly) ... Miscellaneous (not included in the above).	2,150 10,400 22,500 1,025 800 2,050 600 3,775	2,025 9,600 21,900 975 700 2,050 400 1,500	1,595 8,500 15,805 700	14	7		
	Total	330,640	258,200	All bhadoi crops	44,500	41,600	32,320	14	7		
Bihar	Sadar	507,520	368,000	Bhadoi paddy ... Millets ... Indian-corn (maize) ... Hemp ...	5,000 20,000 48,000 1,000	3,000 20,000 48,000 1,000	4,000 20,000 48,000 1,000	16 16 16 16	16 16 16 16	The excessive rain at the time of ploughing and sowing followed by floods when the crops were maturing proved injurious.	The excessive rainfall of the year damaged the bhadoi crops, or the outturn would have been better.
	Total	507,520	368,000	All bhadoi crops	124,160	122,160	110,000	16	11		
	Total	507,520	368,000	All bhadoi crops	124,160	122,160	110,000	16	11		

Dinapore	91,820	75,690	Bhadol paddy ...	3,590	3,590	3,590	6	On account of the excessive rainfall the area sown is less than last year; also inundations later on caused great injury to the crops; hence the output is worse than last year.
			Indian-corn (maize) ...	7,680	7,680	7,680	14	
			Jute ...	80	80	80		
			Cotton ...	80	80	80		
			Hemp ...	80	80	80		
			Til (singelly) ...	80	80	80		
			Miscellaneous (not included in the above).	7,680	7,680	7,680		
Total	91,820	75,690	All bhadoi crops	19,200	19,200	19,200	6	
Whole district	1,330,560	998,500	Bhadol paddy ...	8,145	8,145	8,145		
			Millet ...	8,145	8,145	8,145		
			Indian-corn (maize) ...	16,180	16,180	16,180		
			Bhadol pulse ...	1,315	1,315	1,315	14	
			Jute ...	1,315	1,315	1,315		
			Cotton ...	2,540	2,540	2,540		
			Hemp ...	1,880	1,880	1,880		
			Indiso ...	100	100	100		
			Til (singelly) ...	1,570	1,570	1,570		
			Miscellaneous (not included in the above).	11,465	11,465	11,465		
District Total	1,330,560	998,500	All bhadoi crops	221,160	221,160	221,160	84	
Sadar	1,219,260	917,960	Bhadol paddy ...	4,500	4,500	4,500	15	The bhadoi crops were much damaged by excessive rain especially at the harvesting time.
			Millet ...	4,500	4,500	4,500	74	
			Indian-corn (maize) ...	28,000	28,000	28,000	6	
			Bhadol pulse ...	1,200	1,200	1,200		
Total	1,219,260	917,960	All bhadoi crops	31,200	31,200	31,200	84	
Jahanabad	387,840	321,800	Bhadol paddy ...	8,300	8,300	8,300	15	
			Millet ...	12,500	12,500	12,500	7	
			Indian-corn (maize) ...	8,300	8,300	8,300	5	
			Bhadol pulse ...	2,600	2,600	2,600	5	
			Cotton ...	100	100	100	15	
Total	387,840	321,800	All bhadoi crops	32,000	32,000	32,000	8	
Aurangabad	797,440	478,100	Bhadol paddy ...	1,900	2,900	2,900	10	
			Millet ...	8,200	10,400	10,400	10	
			Indian-corn (maize) ...	8,200	10,400	10,400	10	
			Bhadol pulse ...	1,300	1,300	1,300	10	
			Indiso ...	100	200	200	10	
			Til (singelly) ...	500	600	600	10	
			Miscellaneous (not included in the above).	3,300	4,400	4,400	10	
Total	797,440	478,100	All bhadoi crops	23,700	30,000	30,000	10	

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 16 annas to represent the average output, how many annas represented output last year?	Taking 16 annas to represent the average output, how many annas will represent this year's output?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Gazetted, conclud.	Nawada	611,200	489,600	Bhadoi paddy ... Millet-corn (maize) ... Bhadoi pulse ... Til (gingelly) ...	5,200 32,160 15,700 9,700 1,200	5,100 20,100 15,500 9,600 1,200	5,900 22,000 15,700 9,700 1,200	...	...	The crops were generally damaged by excessive rain. More than normal area at Aurangabad and normal area elsewhere was sown on account of good rain at the time. As the bhadoi crops were nearly ripe at the time of discussion of the subject, it is probable that the actual yield will be more than that shown in this report from those of the former ones. The normal area is understood to have been sown everywhere on account of good rain at the time. The crops, with the exception of paddy, have been greatly damaged by too continuous rain in June and July. The areas in column 3 have been corrected according to the Census Report of 1891.	...
	Total	611,200	489,600	All bhadoi crops	67,800	62,300	67,900	...	...		
	Whole district	3,015,650	2,207,500	Bhadoi paddy ... Millet-corn (maize) ... Bhadoi pulse ... Cotton ... Indigo ... Til (gingelly) ... Miscellaneous (not included in the above)	18,500 111,500 63,100 15,600 100 1,700 3,300	20,400 104,400 65,200 15,100 100 1,500 4,400	20,600 113,700 65,100 15,300 100 1,700 4,500	...	...		
	District Total	3,015,650	2,207,500	All bhadoi crops	215,400	215,800	221,200	...	...		

Shahabad .. Sedar	555,000	457,400	Bhadol paddy .. Millet .. Indian-corn (maize) .. Bhadol pulse .. Jute (singelly) .. Miscellaneous (not in- cluded in the above).	27,530 25,546 17,875 7,200 2,600 9,950	47,200 15,500 14,700 7,200 2,600 5,900	12	8	The figures returned by Collector in column 7 against Sadur and Bhabua were so improbable that they have been discarded, and the estimates for this year reproduced in that column.
Total	555,000	457,400	Bhadol paddy .. Millet .. Indian-corn (maize) .. Bhadol pulse .. Jute (singelly) .. Miscellaneous (not in- cluded in the above).	27,530 25,546 17,875 7,200 2,600 9,950	47,200 15,500 14,700 7,200 2,600 5,900	12	8	Excessive rainfall after sowing time damaged the crop.
Exur ..	41,846	217,881	Bhadol paddy .. Millet .. Indian-corn (maize) .. Bhadol pulse .. Jute (singelly) .. Miscellaneous (not in- cluded in the above).	81,050 5,700 3,045 13,000 2,000 1,500 9,376	99,300 3,500 3,500 12,500 2,000 2,000 10,000	12	16	Timely rainfall did much good to the crop.
Total	41,846	217,881	Bhadol paddy .. Millet .. Indian-corn (maize) .. Bhadol pulse .. Jute (singelly) .. Miscellaneous (not in- cluded in the above).	81,050 5,700 3,045 13,000 2,000 1,500 9,376	99,300 3,500 3,500 12,500 2,000 2,000 10,000	12	16	
Bhabua	582,640	624,640	Bhadol paddy .. Millet .. Indian-corn (maize) .. Bhadol pulse .. Jute (singelly) .. Miscellaneous (not in- cluded in the above).	32,121 5,580 6,087 9,484 2,540 75,080	32,840 5,700 6,087 9,484 2,540 75,080	12	14	Overabundance of rain after sowing time and overflow of the Durgam and the Karamnassa damaged the bhadoi crop.
Total	582,640	624,640	Bhadol paddy .. Millet .. Indian-corn (maize) .. Bhadol pulse .. Jute (singelly) .. Miscellaneous (not in- cluded in the above).	32,121 5,580 6,087 9,484 2,540 75,080	32,840 5,700 6,087 9,484 2,540 75,080	12	14	
Sasaram	955,720	822,549	Bhadol paddy .. Millet .. Indian-corn (maize) .. Bhadol pulse .. Jute (singelly) .. Miscellaneous (not in- cluded in the above).	78,080 27,117 12,748 2,340 1,800 101,827	78,080 27,117 12,748 2,340 1,800 101,827	12	4	Excessive rainfall at sowing and the harvesting time proved unfavourable to the bhadoi crops of this year.
Total	955,720	822,549	Bhadol paddy .. Millet .. Indian-corn (maize) .. Bhadol pulse .. Jute (singelly) .. Miscellaneous (not in- cluded in the above).	78,080 27,117 12,748 2,340 1,800 101,827	78,080 27,117 12,748 2,340 1,800 101,827	12	4	
Whole district	2,794,460	1,712,461	Bhadol paddy .. Millet .. Indian-corn (maize) .. Bhadol pulse .. Jute (singelly) .. Miscellaneous (not in- cluded in the above).	101,825 83,001 28,352 60,380 17,400 293,136	101,825 83,001 28,352 60,380 17,400 293,136	12	5	
Total	2,794,460	1,712,461	Bhadol paddy .. Millet .. Indian-corn (maize) .. Bhadol pulse .. Jute (singelly) .. Miscellaneous (not in- cluded in the above).	101,825 83,001 28,352 60,380 17,400 293,136	101,825 83,001 28,352 60,380 17,400 293,136	12	5	
District Total	2,794,460	1,712,461	Bhadol paddy .. Millet .. Indian-corn (maize) .. Bhadol pulse .. Jute (singelly) .. Miscellaneous (not in- cluded in the above).	101,825 83,001 28,352 60,380 17,400 293,136	101,825 83,001 28,352 60,380 17,400 293,136	12	5	

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under one of the year's bhadoi crops in acres.	Taking 10 annas to represent the average outturn, how many annas represented outturn last year.	Taking 10 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Darbhanga	Sadar ...	782,080	804,500	Bhadoi paddy .. Millet .. Indigo-corn (maize) .. Bhadoi pulse .. Jute .. Cotton .. Indigo .. Til (gingelly) ..	26,112 73,844 31,770 9,344 324 1,250 23,320 320	26,112 73,844 31,770 9,344 324 1,250 23,320 320	26,112 73,844 31,770 9,344 324 1,250 23,320 320	10		Favourable and timely rainfall during the sowing season helped the farmers to cultivate bhadoi crops as in ordinary years, but the late excessive rainfall followed by unprecipitated flood caused severe damage to the bhadoi crops of almost the whole Sadar Sub-division. The average outturn is roughly estimated at 4 annas.	
	Total	782,080	804,500	All bhadoi crops	1,06,440	1,06,440	1,06,440	10			
	Samastipur ...	488,920	301,040	Bhadoi paddy .. Millet .. Indigo-corn (maize) .. Bhadoi pulse .. Cotton .. Indigo .. Til (gingelly) ..	5,000 66,030 100,000 2,000 9,000 64,000 10	5,420 108,440 100,000 2,000 9,000 64,000 10	5,000 100,000 102,000 2,000 9,000 64,000 10	10		The low outturn is due to heavy rains and floods this year.	
	Total	488,920	301,040	All bhadoi crops	270,440	270,440	278,000	10			





1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop	Approximate normal area under each <i>bhadra</i> crop in acres.	Approximate area under each of the last year's <i>bhadra</i> crops in acres.	Estimated area under each of this year's <i>bhadra</i> crops in acres.	Taking 10 annas to represent the average autumn, how many annas will represent autumn last year?	Taking 10 annas to represent the average autumn, how many annas will represent this year's autumn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Muraripukur —concd.	Sitamardi	648,960	493,000	Bhadra paddy Millets Indian-corn (maize) Bhadra pulse Cotton Ramp Til (gingelly) Miscellaneous (not included in the above)	30,600 2,500 40,000 6,000 2,000 13,500 3,000 75,500	30,600 2,500 40,000 6,000 2,000 13,500 3,000 75,500	30,600 2,500 40,000 6,000 2,000 13,500 3,000 75,500	17	64		
	Total	648,960	493,000	All bhadra crops	173,500	173,500	173,500	17	64		
	Whole district...	1,021,020	1,445,000	Bhadra paddy Millets Indian-corn (maize) Bhadra pulse Cotton Ramp Til (gingelly) Miscellaneous (not included in the above)	125,000 5,000 110,000 12,000 3,000 137,000 12,000 140,000	125,000 5,000 110,000 12,000 3,000 137,000 12,000 140,000	125,000 5,000 110,000 12,000 3,000 137,000 12,000 140,000	17	6		
	District Total	1,021,020	1,445,000	All bhadra crops	548,000	548,000	548,000	17	6		

Saran	Sadar	638,729	361,500	Bhadol paddy	7,430	7,430	7,430	14	13
				Millet	93,000	93,000	93,000		
				Indian-corn (maize)	77,750	77,750	77,750		
				Bhadol pulse	4,600	4,600	4,600	14	13
				Hemp	1,200	1,200	1,200		
				Indigo	20,000	20,000	20,000		
				Tin (gingelly)	700	700	700		
				Miscellaneous (not in- cluded in the above)	1,600	1,600	1,600		
	Total	638,729	561,550	All bhadoi crops	907,200	907,200	907,200	14	13
Saran	Sadar	545,925	450,000	Bhadol paddy	12,900	12,900	12,900		
				Millet	75,200	75,200	75,200		
				Indian-corn (maize)	59,000	59,000	59,000		
				Bhadol pulse	5,000	5,000	5,000	15	13
				Jute ( <i>patwa</i> )	1,100	1,100	1,100		
				Cotton	3,500	3,500	3,500		
				Hemp	2,000	2,000	2,000		
				Indigo	12,000	12,000	12,000		
				Tin (gingelly)	800	800	800		
				Miscellaneous (not in- cluded in the above)	1,700	1,700	1,700		
	Total	545,925	450,000	All bhadoi crops	207,100	207,100	207,100	15	13
Gopalgunge	Sadar	483,440	371,000	Bhadol paddy	21,800	21,800	21,800		
				Millet	12,200	12,200	12,200		
				Indian-corn (maize)	55,800	55,800	55,800		
				Bhadol pulse	11,500	11,500	11,500	14	16
				Jute ( <i>patwa</i> )	6,200	6,200	6,200		
				Cotton	5,200	5,200	5,200		
				Hemp	3,000	3,000	3,000		
				Indigo	10,000	10,000	10,000		
				Tin (gingelly)	700	700	700		
				Miscellaneous (not in- cluded in the above)	34,600	34,600	34,600		
	Total	483,440	371,000	All bhadoi crops	210,500	210,500	210,500	14	16
Whole district	Sadar	1,678,085	1,382,500	Bhadol paddy	40,100	40,100	40,100		
				Millet	187,400	187,400	187,400		
				Indian-corn (maize)	223,500	223,500	223,500		
				Bhadol pulse	21,100	21,100	21,100	14	14
				Jute ( <i>patwa</i> )	7,300	7,300	7,300		
				Cotton	11,700	11,700	11,700		
				Hemp	8,300	8,300	8,300		
				Indigo	51,000	51,000	51,000		
				Tin (gingelly)	7,100	7,100	7,100		
				Miscellaneous (not in- cluded in the above)	37,000	37,000	37,000		
	District Total	1,678,085	1,382,500	All bhadoi crops	622,200	622,200	622,200	14	14

The omission of esti-  
mates of area under  
rice and cotton last  
year have been  
supplied by insert-  
ing the same figures  
as are given for this  
year.

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each <i>bhadol</i> crop in acres.	Approximate area under each of the last year's <i>bhadol</i> crops in acres.	Estimated area under each of this year's <i>bhadol</i> crops in acres.	Taking 14 annas to represent the average output, how many annas will represent this year's output?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.	
hamjarsn	Sadar	971,520	654,600	Bhadol paddy In-sun-corn (maize) Bhadol pulse .. Cotton .. Indigo .. All (garzelly) .. Miscellaneous (not included in the above).	5,100 1,500 3,500 700 59,600 2,300 26,200	249,500 105,000 3,500 700 83,000 2,000 26,200	249,500 105,000 3,500 700 83,000 2,000 26,200	Taking 16 annas to represent the average output, how many annas will represent this year's output?			
	Total	971,520	654,600	All bhadoi crops	426,500	426,500	426,500	14	10		
Bettiah		1,255,320	763,000	Bhadol paddy In-sun-corn (maize) Bhadol pulse .. Cotton .. Indigo .. All (garzelly) .. Miscellaneous (not intended in the above.)	102,100 64,000 700 300 15,000 1,000 3,800	102,100 64,000 700 300 15,000 1,000 3,800	102,100 64,000 700 300 15,000 1,000 3,800	16	12		
	Total	1,255,320	763,000	All bhadoi crops	276,700	276,700	276,700	14	10		

Whole district		2,257,840	1,422,660	Bhadai paddy ... Indian-corn (maize) ... Bhadai pulse ... Cotton ... Indigo ... Til (sengelly) ... Miscellaneous ... (not included in the above.)	419,500 185,000 4,000 1,000 54,000 3,000 30,000	449,200 185,000 4,000 1,000 54,000 3,000 30,000	449,500 185,000 4,000 1,000 54,000 3,000 30,000	10	10
District Total ...		2,257,840	1,422,660	All bhadoi crops ...	713,500	703,500	702,000	14	10
Monghyr ...									
Sadar ...		997,770	628,200	Bhadai paddy ... Indian-corn (maize) ... Miscellaneous (not in- cluded in the above.)	81,000 25,000 4,000 9,000	81,000 25,000 4,000 9,000	80,000 25,000 4,000 9,000	16	10
Total ...		997,770	628,200	All bhadoi crops ...	81,000	80,000	80,000	16	10
Jamui ...		1,019,550	515,300	Bhadai paddy ... Millet ... Indian-corn (maize) ... Bhadai pulse ... Cotton ... Hemp ... Indigo ... Til (sengelly) ... Miscellaneous (not in- cluded in the above.)	90,000 10,750 23,750 32,500 8,400 Nil 100 700 8,750	90,000 10,750 23,750 32,500 8,400 Nil 100 700 8,750	90,000 10,050 21,700 400 50 150 800 200	12	6
Total ...		1,019,550	515,300	All bhadoi crops ...	90,000	89,900	89,900	12	8
Rangasari		468,100	327,300	Bhadai paddy ... Millet ... Indian-corn (maize) ... Cotton ... Hemp ... Indigo ... Til (sengelly) ... Miscellaneous (not in- cluded in the above.)	20,000 41,200 144,200 10,200 10,300 6,800 41,200	20,000 41,200 144,200 10,200 10,300 6,800 41,200	20,000 41,200 144,200 10,200 10,300 6,800 41,200	15	8
Total ...		468,100	327,300	All bhadoi crops ...	20,000	20,000	20,000	15	8

Crops destroyed on account of ex-  
cessive rain and consequent flood.This year more than half the area  
could not be sown owing to the con-  
tinued unusual and excessive  
rain. Those sown and germinated  
were much damaged by con-  
tinued rain. The crops are said  
to be a failure on the whole as the  
early paddy was much improved by  
timely rain.Crops destroyed on account of ex-  
cessive rain and subsequent flood.

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Number of crops.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 16 annas to represent the average outturn, how many annas represented outturn last year? 9	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn? 9	Remarks by the District Officers.	Remarks by the District Officers and Agriculturists, Bengal.
Monghyr— civild.	Whole district.	2,500,440	1,552,802	Bhadoi paddy Millets Indian-corn (maize) Bhadoi pulse Cotton Ramp Indigo Til (gingelly) Miscellaneous (not included in the above.)		117,329 14,062 413,102 8,414 10,723 16,360 62,376 773 53,500	104,200 51,200 867,500 10,700 16,500 62,300 80 51,200	Annas. 151	Annas. 9		
Bhagalpur ...	District Total ...	2,500,440	1,552,802	All bhadoi crops	752,602	752,602	631,500	151	9		
	Sadar	589,040	464,000	Bhadoi paddy Millets Indian-corn (maize) Bhadoi pulse Jute Indigo Miscellaneous (not included in the above.)	198,000 4,200 129,300 101 500 9,000 500	195,000 4,200 129,300 101 500 9,000 500	128,000 4,500 129,500 100 500 9,000 500	14 14 14 14 14 14 14	12 12 12 12 12 12 12	The quantity and distribution of rain-fall were favorable to most of the crops grown in this season, and according to the normal area, was brought under cultivation, except in Supani, where the area under millets was reduced owing to excessive rain which also damaged the Indian-corn already sown in the Sadar and Banka sub-divisions.	
	Total	589,040	464,000	All bhadoi crops	271,900	271,900	271,900	14	12		

Bauka	755,400	555,000	Bhadri paddy	30,200	30,200	30,200	16	16	There is no reason to alter the estimates of outturn generally. But the Subdivisional Officer, Bauka, has reduced the estimate under indigo. The plant in <i>deoras</i> was injured by too abundant rainfall. The Subdivisional Officer, Supaul, has also modified his estimate for paddy and millets, the former having been injured by heavy floods, and the latter by the heavy rain, which proved better than was anticipated. The modifications are too slight to materially affect the original estimates for the whole district.
			Indian-corn (maize)	113,350	113,350	113,350	14	6	
			Bhadri pulse	4,400	4,400	4,400	16	16	
			Jute	13,400	13,400	13,400	16	16	
			Cotton	10,500	10,500	10,500	16	16	
			Hemp	13,400	13,400	13,400	16	16	
			Indigo	1,500	1,500	1,500	12	12	
			Miscellaneous (not included in the above)	13,300	13,300	13,300	16	16	
			All bhadoi crops	242,500	242,500	242,500	16	11	
Total	755,400	555,000							
Madhupura	531,760	431,000	Bhadri paddy	84,000	84,000	84,000	14	13	
			Indigo	1,500	1,500	1,500	13	13	
			Miscellaneous (not included in the above)	28,600	28,600	28,600	16	12	
Total	531,760	431,000	All bhadoi crops	113,500	113,500	113,500	16	164	
Supaul	766,720	634,000	Bhadri paddy	74,500	74,500	74,500	17	16	
			Millet	76,200	76,200	76,200	14	9	
			Jute	5,700	5,700	5,700	16	16	
			Cotton	3,200	3,200	3,200	14	16	
			Indigo	1,000	1,000	1,000	14	14	
			Til (gingelly)	3,200	3,200	3,200	16	12	
			Miscellaneous (not included in the above)	5,200	5,200	5,200	16	16	
Total	766,720	634,000	All bhadoi crops	163,800	163,800	163,800	17	13	
Whole district	2,705,920	2,097,000	Bhadri paddy	316,400	316,400	316,400	16	164	
			Millet	80,700	80,700	80,700	14	84	
			Indian-corn (maize)	242,600	242,600	242,600	14	7	
			Bhadri pulse	40,500	40,500	40,500	15	16	
			Jute	19,600	19,600	19,600	15	16	
			Cotton	14,000	14,000	14,000	15	16	
			Hemp	13,400	13,400	13,400	16	16	
			Indigo	1,500	1,500	1,500	12	12	
			Til (gingelly)	3,200	3,200	3,200	16	16	
			Miscellaneous (not included in the above)	53,500	53,500	53,500	17	13	
District Total	2,705,920	2,097,000	All bhadoi crops	797,500	797,500	797,500	16	13	

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each <i>bhadol</i> crop in acres.	Approximate area under each of the last year's <i>bhadol</i> crops in acres.	Estimated area under each of this year's <i>bhadol</i> crops in acres.	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn?	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Purnea	Sadar	1,646,680	790,000	Bhadol paddy Bhadol pulse Jute Indigo Miscellaneous (not included in the above.)	260,000 5,500 8,500 37,800 20,000	250,000 4,000 2,500 5,000 37,000	200,000 4,000 2,500 6,000 58,000	16 12 12 16 16	16 12 12 16 16	There was excessive rain-fall and consequent high water in the <i>bhadol</i> season, which damaged the crops. The outturn, however, was fair. The area under cultivation was larger than last year.  After the plants came up, there was too much sunshine which caused some injuries to the m. The excessive rain in June 1893, which caused too much accumulation of water in the field, interfered with the thriving of the crops. It became much shorter than the last year. This contributed to reduce the outturn as compared with that of last year.  The rainfall was plentiful and well-distributed. The yield would but for the flood of the <i>Panar</i> have been still greater.	Remarks by the Department of Land Records and Agriculture, Bengal.
	Total	1,646,680	790,000	All <i>bhadol</i> crops	345,000	345,000	371,000	16	14½		
	Khatanganj	857,600	53,000	Bhadol paddy Jute	109,400 34,000	101,200 33,000	101,200 33,000	19 18	18 14		
	Amari	857,600	530,000	All <i>bhadol</i> crops	143,400	154,200	151,200	19	17		
	Amari	668,160	410,000	Bhadol paddy Jute	100,000 5,000	100,000 8,000	100,000 8,000	15 16	16 16		



Malda	Total ...	686,190	410,000	Indigo Miscellaneous (not in- cluded in the above.)	100 500	100 500	100 500	100 500	100 500	16 16	16 16
	Whole District...	3,171,840	1,730,000	All bhadoi crops	168,000	168,000	168,000	168,000	168,000	16	16
	District Total ...	3,171,840	1,730,000	Bhadoi paddy	540,400	541,200	551,200	551,200	551,200	16	16
Sonthal Par- ganah.	Whole district	1,216,640	811,500	Indian-corn (maize) ...	3,000	4,000	4,500	4,500	4,500	16	16
	District Total ...	1,216,640	811,500	Bhadoi pulse ...	47,000	48,000	48,000	48,000	48,000	16	16
	Whole district	1,216,640	811,500	Jute ...	37,100	37,100	38,100	38,100	38,100	16	16
Sonthal Par- ganah.	Whole district	1,216,640	811,500	Indigo ...	20,500	20,500	20,500	20,500	20,500	16	16
	District Total ...	1,216,640	811,500	Miscellaneous (not in- cluded in the above.)	600,000	600,000	600,000	600,000	600,000	16	16
	Whole district	1,216,640	811,500	All bhadoi crops	100,000	100,000	100,000	100,000	100,000	16	16
Sonthal Par- ganah.	Whole district	1,216,640	811,500	Bhadoi paddy	3,000	3,000	3,000	3,000	3,000	16	16
	District Total ...	1,216,640	811,500	Indian-corn (maize) ...	25,000	25,000	25,000	25,000	25,000	16	16
	Whole district	1,216,640	811,500	Jute ...	47,000	47,000	47,000	47,000	47,000	16	16
Sonthal Par- ganah.	Whole district	1,216,640	811,500	Indigo ...	20,500	20,500	20,500	20,500	20,500	16	16
	District Total ...	1,216,640	811,500	Miscellaneous (not in- cluded in the above.)	96,000	96,000	96,000	96,000	96,000	16	16
	Whole district	1,216,640	811,500	All bhadoi crops	273,000	277,000	315,000	315,000	315,000	16	16
Sonthal Par- ganah.	Whole district	1,216,640	811,500	Bhadoi paddy	68,373	68,373	68,373	68,373	68,373	16	16
	District Total ...	1,216,640	811,500	Indian-corn (maize) ...	51,114	51,114	51,114	51,114	51,114	16	16
	Whole district	1,216,640	811,500	Bhadoi pulse ...	2,403	2,403	2,403	2,403	2,403	16	16
Sonthal Par- ganah.	Whole district	1,216,640	811,500	Jute ...	1,500	1,500	1,500	1,500	1,500	16	16
	District Total ...	1,216,640	811,500	Indigo ...	120,000	120,000	120,000	120,000	120,000	16	16
	Whole district	1,216,640	811,500	All bhadoi crops	120,000	120,000	120,000	120,000	120,000	16	16
Sonthal Par- ganah.	Whole district	1,216,640	811,500	Bhadoi paddy ...	1,000	1,000	1,000	1,000	1,000	16	16
	District Total ...	1,216,640	811,500	Indian-corn ...	8,000	8,000	8,000	8,000	8,000	16	16
	Whole district	1,216,640	811,500	Bhadoi pulse ...	1,000	1,000	1,000	1,000	1,000	16	16
Sonthal Par- ganah.	Whole district	1,216,640	811,500	Jute ...	400	400	400	400	400	16	16
	District Total ...	1,216,640	811,500	Indigo ...	13,600	13,600	13,600	13,600	13,600	16	16
	Whole district	1,216,640	811,500	Miscellaneous (not in- cluded in the above.)	25,600	25,600	25,600	25,600	25,600	16	16
Sonthal Par- ganah.	Whole district	1,216,640	811,500	All bhadoi crops	25,600	25,600	25,600	25,600	25,600	16	16
	District Total ...	1,216,640	811,500	Bhadoi paddy	1,000	1,000	1,000	1,000	1,000	16	16
	Whole district	1,216,640	811,500	Indian-corn	8,000	8,000	8,000	8,000	8,000	16	16
Sonthal Par- ganah.	Whole district	1,216,640	811,500	Bhadoi pulse	1,000	1,000	1,000	1,000	1,000	16	16
	District Total ...	1,216,640	811,500	Jute	400	400	400	400	400	16	16
	Whole district	1,216,640	811,500	Indigo	13,600	13,600	13,600	13,600	13,600	16	16
Sonthal Par- ganah.	Whole district	1,216,640	811,500	Miscellaneous (not in- cluded in the above.)	25,600	25,600	25,600	25,600	25,600	16	16
	District Total ...	1,216,640	811,500	All bhadoi crops	25,600	25,600	25,600	25,600	25,600	16	16
	Whole district	1,216,640	811,500	Bhadoi paddy	1,000	1,000	1,000	1,000	1,000	16	16
Sonthal Par- ganah.	Whole district	1,216,640	811,500	Indian-corn	8,000	8,000	8,000	8,000	8,000	16	16
	District Total ...	1,216,640	811,500	Bhadoi pulse	1,000	1,000	1,000	1,000	1,000	16	16
	Whole district	1,216,640	811,500	Jute	400	400	400	400	400	16	16
Sonthal Par- ganah.	Whole district	1,216,640	811,500	Indigo	13,600	13,600	13,600	13,600	13,600	16	16
	District Total ...	1,216,640	811,500	Miscellaneous (not in- cluded in the above.)	25,600	25,600	25,600	25,600	25,600	16	16
	Whole district	1,216,640	811,500	All bhadoi crops	25,600	25,600	25,600	25,600	25,600	16	16

The crops on the low lands were to some extent damaged by the excessive rainfall during the ploughing and sowing season. This was, however, more than made up by the bumper return on the high lands. The area under cultivation was also larger than in the last year.

The rainfall being sufficient and well distributed, the outturn of bhadoi paddy has been 16 annas, but the rainfall was rather excessive and injurious to jute, indigo, Indian-corn and other crops.

Excessive rain has caused considerable damage.

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area cultivated to be under	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 15 annas to represent the average outturn, how many annas represented outturn last year?	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn.	Remarks by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Sonthal Par- sons- owid.	Godda ..	618,880	432,900	Bhadoi paddy ..	41,300	10,500	6,900	Annas. 12	Annas. 14	The figures given in columns 6 and 7 are revised figures obtained by local enquiry by the Sub-divisional Officer. The decrease in the area sown this year is due to the excessive rain, which has also affected the outturn.	Excessive and untimely rain has damaged the bhadoi crops, even what were sown, and a good deal of land could not at all be sown.
				Millet Indian-corn (maize) .. Bhadoi pulse .. Jute .. Cotton .. Til (gingelly) ..	10,100 14,900 1,400 300 300 900	7,200 14,800 1,300 300 300 500	4,300 9,800 700 200 100 200	10 10 10 10 10 10	6 2 5 4 8 5		
	Total	618,880	432,900	All bhadoi crops	38,400	37,800	22,800	10	8		
Rajmahal		473,600	325,200	Bhadoi paddy ..	3,500	3,500	3,500	16	12	Excessive and untimely rain has damaged the bhadoi crops, even what were sown, and a good deal of land could not at all be sown.	
				Millet Indian-corn (maize) .. Bhadoi pulse .. Cotton ..	18,000 25,200 5,140 50	18,000 25,200 5,140 50	10,000 30,000 3,000 96	16 15 16 16	12 4 4 4		
	Total	473,600	325,200	All bhadoi crops	3,500	3,500	3,500	16	12		

Total	473,600	355,200	Hemp	109	109	109	100	16	6
			Indigo	3,200	3,200	3,200	3,200	6	6
Jamtara	445,440	121,900	Til (gingelly)	520	520	520	454	8	6
			Miscellaneous (not included in the above)	5,150	5,150	5,150	4,500	18	4
			All bhadoi crops	70,915	70,975	70,975	54,980	16	7
Total	445,440	121,900	Bhadoi paddy	1,000	1,000	1,000	1,000	16	14
			Indigo-corn (maize)	1,000	1,000	1,000	1,000	16	6
Pakour	437,120	327,040	Bhadoi pulse	5,000	5,000	5,000	5,000	16	4
			Cotton	3,000	3,000	3,000	3,000	16	16
Total	437,120	327,040	Hemp	300	300	300	200	16	10
			Indigo	300	300	300	300	16	16
Whole district	3,500,160	1,827,200	Til (gingelly)	3,000	3,000	3,000	3,000	16	16
			Miscellaneous (not included in the above)	7,200	7,200	7,200	7,200	16	8
			All bhadoi crops	32,000	32,000	32,000	32,000	16	12
District Total	3,500,160	1,827,200	Bhadoi paddy	47,360	47,360	47,360	57,600	18	4
			Indigo-corn (maize)	1,260	1,260	1,260	1,260	18	4
Total	437,120	327,040	Bhadoi pulse	5,000	5,000	5,000	5,000	18	4
			Cotton	3,000	3,000	3,000	3,000	18	4
Whole district	3,500,160	1,827,200	Hemp	108,800	108,800	108,800	95,560	15	4
			Indigo	108,800	108,800	108,800	108,800	15	4
District Total	3,500,160	1,827,200	Bhadoi paddy	61,670	61,670	61,670	70,700	11	12
			Indigo-corn (maize)	25,380	25,380	25,380	15,580	14	7
Total	437,120	327,040	Bhadoi pulse	185,351	185,351	185,351	184,753	16	4
			Cotton	64,324	64,324	64,324	61,414	15	7
Whole district	3,500,160	1,827,200	Hemp	3,000	3,000	3,000	3,000	10	4
			Indigo	11,125	11,125	11,125	11,125	14	7
District Total	3,500,160	1,827,200	Til (gingelly)	400	400	400	400	16	7
			Miscellaneous (not included in the above)	5,703	5,703	5,703	5,703	12	9
Total	437,120	327,040	All bhadoi crops	7,400	7,400	7,400	7,400	14	6
				25,950	25,950	25,950	25,950	19	6

Incessant and excessive rain throughout the year and during the time of harvest has greatly affected the output of this year's bhadoi crops.

Owing to heavy and incessant rain this year the area under cultivation has been diminished, and there has been almost a failure of Indian-corn in consequence of which the output is expected to be much below the average.

The area shown in columns 5 and 7 do not tally with those given in last year's forecast of bhadoi crops, owing to the revised figures being furnished by the Sub-divisional Officer of Godda. The decrease in the area sown this year, and that in the output is due to the excessive, incessant and untimely rainfall.

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each <i>bhadoi</i> crop in acres.	Approximate area under each of the last year's <i>bhadoi</i> crops in acres.	Estimated area under each of this year's <i>bhadoi</i> crops in acres.	Taking to annum to represent the average outturn, how many annas will represent outturn last year?	Taking to annum to represent the average outturn, how many annas will represent this year's outturn?	Remark by the District Officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Cuttack	Sadar	632.60	333,125	Bhadi padi Bhadi pul Jute Cotton Hemp Indigo Til (legally) Miscellaneous (not included in the above.)	70,92 3,904 1,100 4,540 500 1,800 540 12,800	70,92 2,750 1,968 1,333 500 180 677 12,772	69,200 3,200 1,600 1,653 311 260 677 12,680	12	10	The principal cause of the decrease in area was the unusually heavy rain and flood in May, in which a greater portion of the cultivated area was flooded, and the early sowings in many places were destroyed.	
	Total	632.60	333,125	All bhadoi crops	62,632	60,460	58,677	12	10		
	Jsipur	706.50	350,740	Bhadi padi Bhadi pul Jute Cotton Til (legally) Miscellaneous (not included in the above.)	25,351 1,835 1,380 900 500 2,554	25,351 1,325 1,470 1,530 500 2,654	25,250 1,370 1,113 900 450 2,616	11	8	The estimated outturn as given in the preliminary forecast has been decreased by the flood in September, which affected the crops when attaining maturity.	
	Total	706.50	350,740	All bhadoi crops	32,740	32,680	32,452	11	8		

Kendrapara	911,360	410,240	Bhadol paddy June Cotton Til (gingelly) Miscellaneous (not included in the above).	64,640 3,360 1,820 1,300 500 2,450	53,310 3,360 1,820 1,130 560 2,080	53,200 1,600 1,750 400 400 2,680	11	9
Total	911,360	410,240	All bhadoi crops	74,360	63,300	59,340	11	9
Banki	75,680	37,200	Bhadol paddy Cotton	6,400 50	9,900 50	6,400 50	8 8	12 16
Total	75,680	37,200	All bhadoi crops	6,450	2,950	6,450	8	14
Whole district	2,325,910	1,161,295	Bhadol paddy June Cotton Hemp Til (gingelly) Til (gingelly) Miscellaneous (not included in the above).	106,513 7,250 5,600 6,400 1,110 180 1,080 15,034	131,483 7,250 5,610 3,353 1,110 180 1,317 15,156	184,466 2,570 4,723 3,473 1,110 460 1,377 15,044	10	10
District Total	2,325,910	1,161,295	All bhadoi crops	206,462	188,340	185,419	10	10
Esdar	741,120	448,000	Bhadol paddy June Cotton Til (gingelly)	25,000 2,580 2,383 2,171	25,520 1,860 1,013 2,171	25,000 1,860 1,013 2,171	10 12 13 13	12 12 12 12
Esadre	741,120	448,000	All bhadoi crops	30,374	29,874	27,640	11	12

(a) The increase in outturn (from 10 annas in the preliminary forecast) is due to rains in due time.

(b) The decrease in outturn (from 12½, 14 and 12½ annas in the preliminary forecast) is due to heavy rains.

(c) The decrease in area is due to heavy rains at the time of cultivation.

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each <i>bhadai</i> crop in acres.	Approximate area under each of the last year's <i>bhadai</i> crops in acres.	Estimated area under each of this year's <i>bhadai</i> crops in acres.	Taking 16 annas to represent the average output, how many annas will represent this year's output?	Taking 16 annas to represent the average output, how many annas will represent this year's output?	Remarks by the District officer.	Remarks by the Department of Land Records and Agriculture, Bengal.
Baharee— cond.	Bhadrak	581,254	330,100	Bhadai paddy Jute Cotton	64,600 1,580 650	64,600 1,580 650	64,600 1,580 650	14 14 12	14 14 12		
				Til (gingelly)	19	19	19	14	14		
				All <i>bhadai</i> crops	65,949	65,949	65,949	144	15		
	Whole district...	1,322,404	537,100	Bhadai paddy Jute Cotton Til (gingelly)	89,890 3,560 973 2,190	89,890 3,190 973 2,190	87,940 2,900 910 1,829	13 14 114 124	131 13 14 124		
	District Total ...	1,322,404	537,100	All <i>bhadai</i> crops	96,323	95,123	93,020	13	13		
Angul and Khondmal.	Angul	585,900	125,500	Bhadai paddy Indian-corn (in size) Bhadai pulse Jute Cotton Til (gingelly) Miscellaneous (not in- cluded in the above.)	5,000 3,000 2,000 1,000 1,000 8,000 1,000	5,000 2,000 ..... ..... ..... 8,000 5,500	5,000 3,000 2,000 1,000 1,000 8,000 1,000	7	4 12 10 16 18 8 ...	The loss of <i>bhadai</i> paddy, <i>bhadai</i> pulse, <i>til</i> and <i>miscellaneous</i> crops was caused by irregular rain both at the sowing and flowering season.	
	Total ...	585,900	125,500	All <i>bhadai</i> crops	20,000	12,800	20,000	7	13		

Khondwale ...	512,000	217,800	Bhadol paddy Indian-corn (maize) Bhadol pulse ... Jute ... Til (gingelly) ... Miscellaneous (not in- cluded in the above).	9,000 5,000 4,000 100 16,000 8,200	9,000 5,000 4,000 100 16,000 8,200	18 18 18 18 18 18
Total ...	512,000	217,800	All bhadoi crops ...	42,300	42,300	18
Whole district ...						
Total ...	1,097,900	340,300	Bhadol paddy Indian-corn (maize) Bhadol pulse ... Jute ... Cotton ... Til (gingelly) ... Miscellaneous (not in- cluded in the above).	14,000 8,000 6,000 1,000 100 10,000 9,200	14,000 8,000 6,000 1,000 100 10,000 9,200	12 16 16 16 16 16 8
District Total ...						
Total ...	1,007,900	340,300	All bhadoi crops	62,300	62,300	14
Furl ...						
District Total ...	973,000	400,900	Bhadol paddy Miscellaneous (maize & ragi).	27,000 17,000	27,000 17,000	7 6
Total ...	973,200	400,800		47,000	45,400	64
Khurda ...						
Total ...	638,700	267,900	Paddy paddy Miscellaneous (maize & ragi) Cotton	27,000 22,000 11,000	26,000 22,000 8,000	10 6
Whole district ...						
Total ...	611,720	267,900	All bhadoi crops	60,000	58,800	6
District Total ...	1,612,620	728,100	Bhadol paddy Miscellaneous (maize & ragi) Cotton	27,000 40,000 11,200	27,000 40,000 5,000	64 6 13
Total ...	1,612,620	728,100	All bhadoi crops	137,000	121,000	64
Hazaribagh ...						
District Total ...	2,025,900	1,604,300	Bhadol paddy Miscellaneous (maize & ragi) Jute Cotton Ragi Til (gingelly) Miscellaneous (not in- cluded in the above).	62,000 15,000 37,000 17 4,200 8,000 12,000 5,000	62,000 15,000 37,000 17 4,200 8,000 12,000 5,000	10 4 4 19 8 8 6 6
Total ...	2,025,900	1,604,300	All bhadoi crops	42,000	42,100	9

It is not understood why bhadoi paddy and millets should yield such poor out-turn in the Sadar sub-division, although the season is said to have been favourable.

Last year the outturn was small in consequence of deficient rainfall and damage done by floods. This year the excessive rainfall in May retarded sowing and also affected the area. The reason of increase in columns 4 and 6 is that some new land has been brought under cultivation. Last year the rainfall was deficient. This year it was favourable.

The decrease in the outturn is due to the seeds not properly germinating and thereby excessive and continual rains all along.

1	2	3	4	5	6	7	8	9	10	11	12
DISTRICT.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each bhadoi crop in acres.	Approximate area under each of the last year's bhadoi crops in acres.	Estimated area under each of this year's bhadoi crops in acres.	Taking 16 annas to represent the average outturn, how many annas represented outturn last year?	Taking 16 annas to represent the average outturn, how many annas will represent this year's outturn?	Remarks by the District officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Hazaribagh —contd.	Girdih ..	1,565,440	819,200	Bhadoi paddy ..	5,860	5,700	5,500	11	11		
				Millet ..	2,360	2,400	2,400	8	8		
				Indian-corn (maize) ..	83,250	83,320	83,320	5	5		
				Bhadoi pulse ..	33,240	33,240	33,240	12	12		
				Cotton ..	5,440	5,440	5,440	6	6		
Lohardaga ..	Total ..	1,565,440	819,200	All bhadoi crops ..	161,000	162,000	164,000	181	91		
	Whole district..	4,693,440	2,478,500	Bhadoi paddy ..	43,207	43,207	43,207	12	12	The decrease in the outturn is due to excessive and incessant rains which caused the plants not to germinate and thrive well.	
				Millet ..	121,000	121,200	121,200	6	6		
				Indian-corn (maize) ..	227,164	227,164	227,164	3	3		
				Bhadoi pulse ..	131,289	131,289	131,289	8	8		
				Cotton ..	17	17	17	11	11		
Lohardaga ..	District Total ..	4,693,440	2,478,500	All bhadoi crops ..	693,079	695,039	670,000	75	75	Owing to the unusual rainfall there is a failure of outturn. The area cultivated remains the same as last year.	
	Whole district..	4,693,900	2,886,300	Bhadoi paddy ..	842,000	842,000	842,000	14	14		
				Indian-corn (maize) ..	8,000	8,000	8,000	6	6		
				Bhadoi pulse ..	80,000	80,000	80,000	12	12		
				Cotton ..	11,000	11,000	11,000	1	1		



Palaman	Whole district...	3,139,200	763,000	Bhadai paddy ... Millets ... Indian-corn (maize) ... Bhadai pulse ... Jute ... Cotton ... Til (gingelly) ... Miscellaneous (not in- cluded in the above.)	43,900 2,000 93,000 23,000 5,000 10,000 14,000 65,000	22,884 97,121 97,000 9,481 2,000 7,927 11,812 34,199	13 6 4 5 7 6 16 6	The shortness of makai and other crops is due to the continuous rain-fall, which, however, suited the paddy and the til.
	District Total ...	3,139,200	763,000	All bhadoi crops	255,109	117,321	16		8
Manbhum	Sadar ...	2,140,160	784,124	Bhadai paddy ... Millets ... Indian-corn (maize) ... Bhadai pulse ... Jute ... Cotton ... Til (gingelly) ... Miscellaneous (not in- cluded in the above.)	3,000 16,500 10,000 18,352 20,500 31,970 2,750 1,500 53,541	3,000 16,500 10,000 18,352 20,500 31,970 2,750 1,500 53,541	12 6 4 8 8 8 8 10	All the crops suffered more or less owing to heavy rains this year.
	Total ...	2,140,160	784,124	All bhadoi crops	170,115	170,113	13		9
Gobindpur	...	513,920	171,396	Bhadai paddy ... Millets ... Indian-corn (maize) ... Bhadai pulse ... Cotton ... Til (gingelly) ... Miscellaneous (not in- cluded in the above.)	1,000 5,500 6,000 4,000 8,000 5,000 31,120	1,000 5,500 6,000 4,000 8,000 5,000 31,120	6 2 2 2 2 2 4	I consider the figures supplied from this sub-division are too low.
	Total ...	513,920	171,396	All bhadoi crops	56,150	56,150	16		34
Whole district ...	...	2,654,080	955,500	Bhadai paddy ... Millets ... Indian-corn (maize) ... Bhadai pulse ... Jute ... Cotton ... Til (gingelly) ... Miscellaneous (not in- cluded in the above.)	4,000 22,000 22,000 22,332 26,500 40,000 2,750 2,000 84,661	4,000 22,000 22,332 22,332 26,500 40,000 2,750 2,000 84,661	9 4 3 5 6 2 6 7	There must be some mistake about jute. It cannot be that such a large area as 36,500 acres is cropped with jute in Manbhum. Jute meant or 2,000 acres?
	District Total ...	2,654,080	955,500	All bhadoi crops	226,263	226,263	12		54

1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in acres.	Total area estimated to be under cultivation in acres.	Name of crop.	Approximate normal area under each <i>bhadra</i> crop in acres.	Approximate area under each of the last year's <i>bhadra</i> crops in acres.	Estimated area under each of this year's <i>bhadra</i> crops in acres.	Taking 10 annas to represent the average outturn, how many annas represented outturn last year?	Taking 10 annas to represent the average outturn, how many annas represented outturn this year's outturn?	Remarks by the District officers.	Remarks by the Department of Land Records and Agriculture, Bengal.
Singbhum	Whole district...	2,43,720	1,13,773	Bhadra Paddy ... Millet Paddy-cum-maize Bhadra pulse ... Cotton Jil (chiefly) Miscellaneous (not included in the above)	62,432 13,765 1,771 1,050 971 18,742 27,180	62,997 13,765 1,771 1,050 971 18,742 27,180	65,523 13,765 1,771 1,050 971 18,742 27,180	12	13	The increase is due to seasonable rain.	
	District Total ..	2,43,720	1,13,773	All <i>bhadra</i> crops	1,13,773	1,13,773	1,13,773	12	13		
	Whole Bengal ...	9,11,55,694	65,42,133	Bhadra Paddy Millet Paddy-cum-maize Bhadra pulse Cotton Jil Miscellaneous M... M... M...	7,13,773 13,765 1,771 1,050 971 18,742 27,180 1,13,773 1,13,773 1,13,773	7,13,773 13,765 1,771 1,050 971 18,742 27,180 1,13,773 1,13,773 1,13,773	7,13,773 13,765 1,771 1,050 971 18,742 27,180 1,13,773 1,13,773 1,13,773	12	13		(a) Taken to be 18 annas in Final note on Bhadrat-Crops, 1892.

## APPENDIX II.

Statement showing sub-divisions and districts in which *bhadoi* food-crops of 1893 are estimated at 8 annas or less.

DISTRICT.	Sub-division.	Estimate of outturn in annas.	REMARKS.
Midnapore	Contal	7	The loss is due to excessive rain fall.
Hooghly	Uluberia	8	
24-Parganas	Diamond Harbour	4	The loss is due to excessive rainfall. The <i>bhadoi</i> food crops in the Diamond Harbour sub-division occupy a small area (about 8,000 acres), and are unimportant.
	Sadar	6	
Khulna	Bagirhat	2	The loss is due to excessive rains.
Nadia	Kushitea	8	
Jessore	Meherpur	8	Ditto ditto.
	Jhenida	8	
	Narail	6	The loss is due to excessive rains, and early rise of the rivers.
Dacca	Sadar	6	
	Narainganj	7	Excessive rain and high floods damaged the crops.
	Manickganj	8	
Faridpur	Sadar	6	The loss is due to high floods. The crops were destroyed on about one-half the area. Much of the area could not also be sown owing to accumulation of water in the <i>beels</i> .
	Goalundo	8	
	Madaripur	5	The loss is due to heavy and continuous rainfall and unusual floods.
Backergunge	Sadar	2	
	Patuakhali	8	Ditto ditto.
	Pirojpur	8	
	Bhoja	4	Ditto ditto.
Mymensingh	Notrokona	8	
Tippera	Bramhanbaria	8	Ditto ditto.
	Chandpur	6	
Noakhali	Sadar	7	The loss is due to abnormally heavy rainfall. The area cropped is very small.
Chittagong Hill Tracts.		7	
Patna	Barh	7	Ditto ditto.
	Dinapur	6	
Gaya	Sadar	7	Ditto ditto.
	Jahannabad	8	
Shahabad	Sasaram	8	The loss is due to excessive rainfall. In Bhabua the crops were further damaged by the overflowing of the <i>Durgauti</i> and <i>Karmanassa</i> .
	Sadar	4	
Darbhanga	Bhabua	4	The damage is due to heavy floods.
Muzaffarpur	Sadar	5	
	Hazipur	7	Ditto ditto.
	Sitamarhi	6	
Monghyr	Jamui	8	The damage is due to excessive rainfall.
	Begusarai	8	
Sonhal Parganas	Sadar	6	Ditto ditto.
	Godda	7	
	Rajnahal	7	Ditto ditto.
	Jamtara	7	
	Pakaur	4	The loss is due to irregular rainfall.
	Deoghur	7	
Angul		7	The loss is due to excessive rainfall.
Hazaribagh	Sadar	3	
	Giridih	7	Ditto ditto.
Palamau		8	
Manbhum	Sadar	6	Ditto ditto.
	Govindpur	2	

REPORT OF THE TRUSTEES OF THE INDIAN MUSEUM ON THE  
ECONOMIC AND ART SECTION OF THE MUSEUM.

REVENUE DEPARTMENT—MISCELLANEOUS.

*Calcutta, the 18th December, 1893.*

RESOLUTION No. 5218.

READ—

The Report of the Trustees of the Indian Museum on the Economic and Art Section of the Indian Museum for the year 1892-93.

The Report of the Officer in charge of the Economic and Art Section of the Indian Museum with the remarks of the Trustees was received on the 7th December 1893.

The most important work in the Economic and Art Section of the Museum during the year was the arrangement of the specimens in the Sudder Street extension. In August 1892 the arrangement of the Art Court was complete. On the 1st September 1892 the Court was opened to the general public. The Ethnological Court was subsequently opened to the public on the 1st January 1893. Both these Courts are reported to be very popular with the visitors to the Museum.

2. During the year under report some specimens of Art manufactures from the extinct Shillong Museum were incorporated with the Museum Collections. Other additions worthy of note were:—in the Ethnological Court (i) a very interesting collection of specimens illustrating the Sonthals and Oraons by Mr. J. Cleghorn, Executive Engineer, Public Works Department, and (ii) a series of excellent photographs of the Andamanese taken by Mr. V. Portman, Assistant Superintendent, Port Blair; and in the Art Court (i) a collection of the silver jewellery worn by the peasantry of the Simla Hills, (ii) some cotton fabrics from Bengal, and (iii) mats from Tanjore and Tinnivelly.

3. The collection of both specimens and information was actively carried on, and a number of useful handbooks on individual products were compiled by Mr. Thurston, Officer in charge of the Economic and Art Section, assisted in the case of "Coal" by Dr. W. King, the Director of the Geological Survey, and in the case of "Mica" by Mr. T. H. Holland of the same Department.

4. Certain changes occurred during the year among the Trustees nominated by the Lieutenant-Governor. Mr. C. E. Buckland, Secretary to Government, proceeded to England on three months' leave, Mr. W. Maude, Officiating Secretary, acting as a Trustee during his absence. On the 3rd May 1892 Mr. W. C. Macpherson was appointed to officiate as Director of the Department of Land Records and Agriculture, Bengal, *vice* Mr. M. Finucane, and took the latter's seat at the Trustees' Board. On the 31st May 1892 the Lieutenant-Governor re-appointed Mr. A. Simson to the seat vacated by Mr. J. D. Maxwell on his departure for Europe.

5. The Lieutenant-Governor has heard with great regret of the death of Mr. J. Wood-Mason, Superintendent of the Indian Museum, on the 10th May 1893 on his journey homewards for the benefit of his health. The memoir of Mr. Wood-Mason's career and researches, quoted by the Trustees in their annual report, is a record of excellent service rendered to the Indian Museum and to the cause of Science.

By order of the Lieutenant-Governor of Bengal,

C. E. BUCKLAND,

*Secretary to the Government of Bengal.*

RESOLUTION ON THE LEPER ASYLUM COMMITTEE'S REPORT.

MUNICIPAL DEPARTMENT, MEDICAL.

*Calcutta, the 18th December 1893.*

RESOLUTION—No. 403/Med.

READ—

Bengal Government Resolutions (Medical), dated the 29th July 1890 and the 16th September 1890.

The Report of the Leper Asylum Committee, dated 13th March 1893.

The Calcutta Leper Asylum, which in one form or another has been in existence since the year 1811, has since 1840 been established in its present site in Amherst Street. But, while the benefits which the institution has conferred upon a section of the population universally pitied have been continually acknowledged, certain disadvantages of the present site have from time to time been pointed out. In 1889 public interest in the local asylum was stimulated in Calcutta, and when His Royal Highness the late Prince Albert Victor visited Bengal in the winter of the same year, a general desire was felt that as a permanent memorial of his visit a new Leper Asylum should be erected to replace the old institution.

2. In these circumstances the Lieutenant-Governor decided to appoint, for the consideration of the whole question, a Committee which should be thoroughly representative, and accordingly, after nominations had been obtained from the principal bodies concerned, a Committee consisting of the following gentlemen was appointed by the second of the Resolutions quoted in the preamble:—The Hon'ble Mr. Justice Prinsep (President), Messrs. J. Lambert, C.I.E., H. Loe, W. M. Osmond, W. J. Simmons, Drs. Gregg and Simpson, Nawab Abdul Latif Bahadur, C.I.E., Babus Isser Chunder Mitter, Surendra Nath Banerjea, and Anrita Nath Mitter, with Mr. P. McGuire as Secretary. The name of Mr. W. Banks Gwyther was subsequently added. All these gentlemen have signed the report with the exception of Dr. Simpson and Mr. W. M. Osmond, whose places, owing to their absence from India, have been taken by Dr. R. Sen and Dr. A. L. Sandel.

3. The duties of the Committee were laid down in the Resolution of the 29th July 1890 in the following terms:—

“The most obvious topics for the consideration of the Committee appear to be the locality for a new asylum, the number of inmates for whom accommodation should be provided (on the assumption that no more stringent provision is made for compulsory detention than is contained in the Bill already circulated by the Government of India), the provision of funds for its maintenance and superintendence, the constitution of a governing body, and the regulation of the conditions under which patients are to be admitted, retained, and discharged. But this enumeration is not intended to be exhaustive, and Sir Stewart Bayley will be glad to receive the advice of the Committee on any other points which may appear to them likely to promote the successful establishment and management of this most important institution.”

4. The report which has now been submitted is the outcome of these orders. The deliberations of the Committee have extended over a period of two and-a-half years; but it is explained that they have been much protracted, partly by the uncertainty which was felt as to the intentions of the Government of India in regard to the compulsory seclusion of lepers, and partly by the delay which has occurred in the publication of the report of the Leprosy Commission, the appearance of which it was thought advisable to await, but which after all has been published some time subsequent to the submission of the report under review.

5. The first point with which the report deals is the locality of the proposed new Asylum. The recommendation of the Committee is that the existing site and buildings should be sold, and that, with the proceeds of this sale and the subscriptions collected by the Prince Albert Victor Memorial Committee, a house and grounds then available in Manicktollah should be purchased and improved by the alteration of existing and the erection of additional buildings. As regards the number of inmates for whom accommodation should be provided, the finding of the Committee is that at

present 200 may be regarded as a maximum, of whom twelve men and the same number of women would be non-Asiatics, and the remainder natives of India in the proportion of three males to one female. On the subject of funds, the report deals fully with the proposed arrangements for selling the present site and preparing the new one; but the Committee have been unable to make any recommendation as to the source from which the funds for maintenance are to be supplied, nor have they attempted to propound any rules for the admission, retention, and discharge of lepers. On the other hand, their recommendation is clear and definite that the Leper Asylum should be a Government institution managed by a Committee to be appointed by Government, upon which all persons or bodies contributing towards the foundation or maintenance of the Asylum should be suitably represented. To all these recommendations the Lieutenant-Governor has given his careful attention, and is pleased to pass the following orders upon them.

6. As regards the question of site, although the Manicktollah premises, which the Lieutenant-Governor has personally inspected, possess many advantages, Sir Charles Elliott is unable to accept the recommendations of the Committee in respect of them. He considers it to be of the first importance that a Leper Asylum should be provided with a complete and sound system of drainage. It is notorious that this condition is not fulfilled by the site in Manicktollah; and although it might be possible to remedy the defect, this operation would add considerably to the cost of the scheme. Moreover, the Lieutenant-Governor is advised that if the Asylum is located outside the limits of the Calcutta Municipality, there would be legal obstacles to the contribution of funds by the Commissioners, who, in His Honour's opinion, should liberally support the institution. Many representations have been made to Government against the retention of the Asylum in its present situation, and these have received careful attention, but in no instance has any other suitable site been indicated. The Officiating Lieutenant-Governor, Sir A. P. MacDonnell, also made enquiry into the question, but failed to discover any such locality, and was constrained to decide that the Asylum shall remain where it is, and that the efforts of those interested in the welfare of its inmates must be directed, not to its removal, but to its improvement. With this conclusion Sir Charles Elliott agrees.

7. In these circumstances it is manifest that the funds which were anticipated from the advantageous sale of the old site will not now be available; but the Committee of the Prince Albert Victor Memorial Fund have, through their Secretaries, intimated their willingness to fall in with the scheme now propounded, and to place at the disposal of Government the funds which they have collected, on certain conditions, one of which is that the Asylum should be named after His Royal Highness the late Prince Albert Victor. To this stipulation the Lieutenant-Governor gladly assents, and the Secretaries to the Fund have been asked to take the necessary steps to transfer the amount collected to the Treasurer of Charitable Endowments. With the sum so provided it is in the first place proposed to acquire a plot of land adjoining the present Asylum, and there to erect suitable buildings for the female patients; and secondly, to remodel and extend the existing wards so as to provide additional space for male patients and separate accommodation for non-Asiatics. The area thus enlarged will provide room for about 120 Hindu and Muhamadan male patients, 50 female patients and 25 or 30 European or Eurasian patients of both sexes.

8. At present the cost of the institution averages Rs. 9,929 a year for 87 patients, and the cost of each patient is thus about Rs. 114 per annum. This expenditure is met by the interest on certain special Trust Funds (Rs. 820) by a Government contribution for medicines (Rs. 125), and by a subsidy from the Calcutta Corporation of Rs. 2,400, the deficiency (about Rs. 7,000) being made up from the funds of the District Charitable Society. The Lieutenant-Governor is now prepared to relieve the District Charitable Society of this charge, and to make a contribution of Rs. 8,000 per annum from Government Funds. The available balance of the sum collected by the Prince Albert Victor Memorial Fund amounts to Rs. 27,000, and it is possible that a portion of the sum of Rs. 13,000 which has been promised but not paid in, may be

realised. From this source the cost of the land to be acquired and part of the cost of new buildings will be met, the remainder being defrayed by Government. As the number of lepers increases, it may be hoped that the endowment of the Asylum will be enriched by the donations of the benevolent and by an increased contribution from the Calcutta Corporation.

9. The Lieutenant-Governor accepts the recommendation of the Committee that the institution should be under Government management, and he has decided that the governing body shall consist of a Committee of seven, of whom four shall be *ex-officio* members, viz., the Inspector-General of Civil Hospitals (President), the Secretary to the Government of Bengal in the Medical Department, the Chairman of the Corporation of Calcutta, and the Commissioner of Police, Calcutta; two of the remaining three places will be filled up on the nomination of the Committees of the District Charitable Society and the Prince Albert Victor Memorial Fund, the seventh member being appointed directly by the Lieutenant-Governor. The executive charge will, as recommended, remain with the Commissioner of Police, Calcutta. Steps have already been taken for the acquisition of the land required; and it will be the duty of this Committee, whose appointment is separately notified, to take over the charge of the Asylum as soon as possible, to arrange for the alteration and construction of the buildings as already described, and to revise thoroughly the rules for the admission, maintenance, and discharge of the lepers, and the general conduct of the institution. The ground on which the Asylum stands and the existing buildings are the property of the District Charitable Society, who, since they will now be relieved of the support of the Asylum, have agreed to transfer them in due form to the Committee of the new institution. The Trust Funds which will be transferred by the District Charitable Society under proper legal safeguards, and the sum to be made available by the Permanent Memorial Committee, together with any sums that may hereafter be contributed, will be held by the Accountant-General as Treasurer of Charitable Endowments under Act VI of 1890.

10. In conclusion, the Lieutenant-Governor desires to express his acknowledgments to the gentlemen who formed the Leper Asylum Committee, and to say that the many other points of detail in their report, which have not been dealt with in the foregoing Resolution, will receive due consideration at the hands of the Committee of the enlarged Leper Asylum.

By order of the Lieutenant-Governor of Bengal,

J. A. BOURDILLON,

*Offg. Secretary to the Government of Bengal.*

**RESOLUTION REVIEWING THE REPORTS ON THE WORKING OF  
DISTRICT BOARDS IN BENGAL DURING THE YEAR 1892-93.**

**MUNICIPAL DEPARTMENT—LOCAL SELF-GOVERNMENT.**

*Calcutta, the 18th December, 1893.*

**RESOLUTION—No. 4086L.S.-G.**

**READ—**

The Reports from the several Commissioners of Divisions on the working of District Boards in Bengal during the year 1892-93.

**Read again—**

The Resolution reviewing the Divisional Reports on the working of District Boards in Bengal during 1891-92.

The Lieutenant-Governor has in previous years been obliged to notice the late submission of Divisional reports, but in 1892 an improvement was visible, and only one was received after the due date. His Honour regrets to observe that this improvement has not been maintained, for out of the eight Divisional reports for 1892-93 five only were received on or about the prescribed date, while the last to arrive, viz. that from Dacca, was one month and eleven days late. It is explained that the delay is caused by the submission of incomplete or late reports by some district officers. Commissioners of Divisions are again requested to take timely steps to secure the punctual submission of these reports.

2. The number of District Boards remained unchanged during the year, but the number of Local Boards was reduced from 106 to 104 owing to the abolition of the Chuadanga sub-division in the Nadia district, and the Lalbag sub-division in the Murshidabad district. This number has, since the close of the year, been further reduced to 102 in consequence of the abolition of the Barrackpore and Dum-Dum sub-divisions in the district of the 24 Parganas. As compared with the previous year, the area controlled by District Boards and the population of that area exhibit a decrease, which is understood to be due to the exclusion of certain tracts from the jurisdiction of District Boards and their inclusion within municipal limits, and also to the substitution for the old figures of those furnished by the latest census returns. Similar variations are noticeable in the area and population subject to the authority of the various Local Boards, and are attributable to the same cause.

3. *Constitution of District Boards.*—The number of members of District Boards amounted to 793, being three greater than in the previous year. Of this number, 170 held their seats *ex-officio*, 314 were nominated by Government, and 309 were elected by the Local Boards: 247 of them were officials and 546 non-officials. The European or Eurasian members numbered 192, and the natives of the country 601. The variations in the composition of the Boards since the previous year are too slight to call for any remarks. In every instance the Magistrate of the district was re-appointed Chairman under section 24 of the Act on the expiry of his term of office.

4. The Boards held altogether 624 meetings, giving an average of 16·4 meetings for each Board, as compared with 512, or an average of 13·4 in the previous year. The District Board of Dinajpur heads the list with 24 meetings, Jalpaiguri comes next with 23 meetings, while the District Boards of Bogra, Gaya, Cuttack, Puri, Mymensingh and Rangpur held 20 or more meetings each. But these figures include adjourned meetings and those that have proved abortive from the want of a quorum. The total number of such meetings amounted to 114, of which 8 occurred in Jessore, 7 each in Champaran



and Jalpaiguri, and 6 each in Dinajpur, Murshidabad, Backergunge, and Bhagalpur, while in Cuttack they reached the large number of 19. In the last-named district only two meetings were successfully convened at the first attempt, ten being adjourned and nine in effectual for want of a quorum. On this subject the Chairman (Mr. Stevenson) writes—

“Members did not always attend regularly, which necessitated adjourned meetings as above shown; some, I fear, contracting the habit of not attending the first summons in the expectation that there could not be a quorum, and thus bringing about that very result. Several of the town members evinced interest in the proceedings. As a rule the mufassal members fail to attend unless some subject comes up for discussion affecting their part of the district directly. This is not perhaps altogether to be wondered at.”

The Commissioner of the Division (Mr. Cooke), however, attributes the poor attendance of members to the persistent failure of the Chairman to preside up till 15th November, since which date he has done so under protest. The Lieutenant-Governor fully endorses the observations of the Commissioner on Mr. Stevenson's view of his duties, which His Honour considers incorrect. The smallest number of meetings was held by the District Boards of Bankura, the 24-Parganas, Patna, Saran and Monghyr (12 meetings each). The falling off in the 24-Parganas is said to be due to the delay which occurred in reconstituting the Board after the general elections held in September 1892. In the case of the other District Boards mentioned no explanation has been offered.

5. The average attendance at each meeting of a District Board was 9·43, or 45·3 per cent. of the members, as compared with 9·61, or 46·4 per cent., in the previous year. The attendance was best in Tippera, Chittagong, Noakhali, and Backergunge, and worst in Cuttack, Bhagalpur, and Dinajpur, where it was below one-third of the actual strength of the Boards. The attendance of non-officials was on the whole fair, except in Jalpaiguri, Malda, and Champaran; that of the official members was bad in Purnea, Puri, Cuttack, Bhagalpur, Khulna, and Darbhanga. The Lieutenant-Governor trusts that in these districts such unsatisfactory results will not be allowed to recur, whether they are due to the apathy of the members themselves, or to the nomination of gentlemen who have not the leisure to attend.

6. *Constitution of Local Boards.*—The 104 Local Boards had a total strength, including the Chairmen, of 1,230 members, of which 152 were officials and 1,078 non-officials. Of the total number, 45 sat as *ex-officio* members, 720 were nominated by Government, and 465 were elected. The preponderance of nominated members is due to the privilege of election not having been extended to several Local Boards. Europeans or Eurasians held 104 and natives of India 1,126 seats on the Boards.

7. The Local Boards held 1,048 meetings, or 87 more than in 1891-92. Of this number, 197, or 18·7 per cent., were adjourned or proved abortive from the absence of a quorum. Only 26 Local Boards held more than 12 meetings during the year. The highest number (19) was attained by the Local Board of the Sadar sub-division in Backergunge; Bangaon and Birbhum come next with

Puri ...	2	Vishnupur ...	4
Basirhat ...	3	Midnapore ...	4
Barrackpore ...	3	Khurda ...	4

18 meetings each. The Local Boards that met least often were those noted in the margin. Looking at the figures for the province as a whole, there has been a slight improvement in the attendance of members, the average number present at each meeting being 5·24, or 44·4 per cent., of the members, against 5·16, or 44·1 per cent., in the previous year. Taking the classes separately, the attendance of official members at the Local Boards, as in the case of District Boards, shows a falling off which is much to be regretted.

8. *Elections.*—During the year under review were held the third general elections of members of those District and Local Boards which had been formed soon after the passing of Act III (B.C.) of 1885. The elections as a rule excited little or no interest, except in a few localities, such as Burdwan, Hooghly, •Kisnagar, Rampur Boalia and some thanas of the Dacca district: in a large number of the mufassal thanas so little store was set by the right of election that the proceedings ended in failure. Considering that in many districts this is the third occasion on which a general election has been held, the results show clearly how indifferent the masses still are to what is sometimes described as a dearly prized privilege.

9. *Occupations of members of District and Local Boards.*—In the subjoined table the members of the several District and Local Boards are classified according to their professions and occupations :—

NAME OF DIVISION.		Government servants.		Zamindars, talukdars, and zamindars' servants.		Pleaders and mukhtars.		Planters.		Missionaries.		Government pensioners.		Other occupations.		Total number of members.
		No.	Ratio per cent.	No.	Ratio per cent.	No.	Ratio per cent.	No.	Ratio per cent.	No.	Ratio per cent.	No.	Ratio per cent.	No.	Ratio per cent.	
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Burdwan Division	District Boards	32	29	28	25.4	34	30.9	4	3.6	2	1.8	3	2.7	7	6.3	110
	Local Boards	31	12.9	104	43.3	89	24.8	...	...	...	...	4	1.6	31	12.9	238
Presidency Division	District Boards	39	27.7	33	27.7	24	21.2	8	7.4	8	2.7	3	2.7	11	10.1	104
	Local Boards	21	8.6	103	42.2	61	25	5	2	2	8	1	4	51	20.9	24
Rajshahi Division	District Boards	30	31.8	33	29.2	23	21.3	7	6.1	...	...	1	3	13	11.5	111
	Local Boards	10	10.6	50	53.2	18	19.1	1	1	...	...	1	1	14	14.8	9
Dacca Division	District Boards	31	29.8	25	24.6	40	38.5	...	...	...	...	3	2.9	5	4.8	104
	Local Boards	23	12.9	67	34.3	84	43.1	...	...	...	...	1	5	18	9.2	191
Chittagong Division	District Boards	18	35.3	16	31.4	12	23.5	4	7.8	...	...	...	...	1	1.9	5
	Local Boards	5	1.5	13	46.2	8	29.0	...	...	...	...	...	...	1	3.7	27
Patna Division	District Boards	55	33.7	51	31.2	25	15.8	30	18.4	...	...	...	...	2	1.2	165
	Local Boards	21	13.9	115	51.5	38	17.1	29	13	...	...	...	...	10	4	225
Bhagalpur Division	District Boards	20	21.27	38	40.42	18	19.14	11	11.7	1	1.06	3	3.19	3	3.19	94
	Local Boards	10	7.69	64	49.23	26	20	13	10	1	7.6	1	7.6	16	11.63	130
Orissa Division	District Boards	21	42	11	22	10	20	...	...	2	4	4	8	2	4	50
	Local Boards	10	21.3	28	35.9	21	26.9	...	...	1	1.2	4	5.1	5	6.4	77
GRAND TOTAL	District Boards	213	30.6	292	29.2	185	23.3	61	8.4	8	1	17	2.1	44	5.5	705
	Local Boards	162	12.3	544	41.2	325	26.4	48	3.9	4	9	12	9	145	11.7	1,230

These figures call for little comment. It is but right and proper that the landholding interests should be largely represented on both District and Local Boards. The percentage of representatives of the legal professions has risen, as compared with the figures for 1891-92, from 22.6 to 23.3 in District Boards, and from 23.8 to 26.4 in Local Boards. The Lieutenant-Governor is inclined to concur with the opinion of the Presidency Commissioner that this result is not entirely satisfactory. No doubt very useful and energetic members are frequently drawn from among gentlemen of this class; but inasmuch as local knowledge of the wants of the interior of the district is essential to the successful administration of the District and Local Board funds, and as these gentlemen, owing to the exigencies of their profession, necessarily reside at head-quarters, their predominance on the Boards is not altogether a matter for congratulation. The Commissioner of Chittagong states that on the several District Boards of his Division the Muhammadans are not sufficiently represented. The Commissioner of Dacca remarks that the bulk of the people are unrepresented unless it may be assumed that their interests are protected by the official members of the Boards.

10. *Powers of Local Boards.*—In paragraph 11 of the Resolution on Local Self-Government for 1891-92, the Lieutenant-Governor recorded his views as to the measure of power which should be accorded to Local Boards and as to the principles on which such delegation should be based, and he invited all District Boards to review the subject in the light of the remarks then recorded. This has been done in most cases, but the powers delegated to Local Boards underwent but little change in consequence. The management of ferries and primary education was made over to the Local Boards of Hooghly, and of pounds and ferries to the Local Boards of Howrah. The Tippera District Board, moreover, with the sanction of Government, have granted, to the Local Boards in that district with effect from 1st April 1893, certain modified powers in regard to primary education, pounds, ferries, public works and roads. The Local Boards in Midnapore, owing to their inefficient administration, have been relieved of the duty of constructing and repairing village roads: this change apparently leaves them with no duty beyond that of managing the pounds, which is hardly enough to justify their existence. Admitting that great discretion must be used in the delegation of authority to Local Boards, the Lieutenant-Governor desires to point out that too great a curtailment of their powers must necessarily defeat its own object by depriving the Boards of all interest in their work. In other districts the Local Boards continued to perform such duties as have been made over to them, including the repair of village roads, the administration of pounds, ferries and primary education, the supervision of dispensaries and the disbursement of grants for sanitary purposes. As to the manner in which these powers have

been exercised by the Local Boards concerned, the Commissioner of Burdwan remarks that all the Local Boards in Burdwan are said to have displayed some interest in educational matters, and paid attention to the maintenance of village roads. The Local Boards in the district of Birbhum are said to have administered with fair zeal the grants for village roads and primary education.

11. The Chairman of the District Board of Nadia states that some of the Local Boards worked with regularity, while complaints were made against others of dilatoriness in the despatch of business. The management of secondary education by the Local Boards in the Jessore district has not been satisfactory, and the question whether the District Board should take it into their own hands is under consideration. Mr. Fiddian, the Chairman of the Board, writes:—

“The administration by Local Boards has given only a moderate degree of success. They have not been so successful as might have been expected from their local knowledge in dealing with pounds, and their attitude towards the managers of middle schools has not evinced sufficient tact.”

This only corroborates the opinion of the Lieutenant-Governor as expressed in paragraph 11 of last year's Resolution:—“Whatever may be said of primary education, the Lieutenant-Governor feels no doubt that Local Boards should have no concern with secondary education.” His Honour hopes that, having found out by experience the justice of these remarks, the District Board will hesitate no longer to act upon them. The Chairman of the Khulna District Board (Mr. B. Dé) remarks that as a body each Local Board takes much interest in the condition of the roads and bridges under its supervision, but that they are unable to do much real good for want of comprehensive knowledge of the areas under their jurisdiction. He adds that the quality of their work depends a great deal on the kind of Chairman they have. The Chairman of the Murshidabad District Board writes:—

“The Local Boards, both under official and non-official Chairmen, really do very little work indeed. I cannot find that a single member anywhere helps the Chairman in checking the work done on village roads, and the Chairmen themselves do far too little in this matter. Things are left too much altogether to sub-overseers and contractors.”

In Mr. Westmacott's opinion Local Boards do not appear to have been of much use anywhere, thus fulfilling his anticipations on the subject.

12. The Chairman of the Rajshahi District Board (Mr. Price) reports that the Local Boards have exercised the powers delegated to them in a very intelligent and satisfactory manner, and that they take considerable interest in their work. Mr. Harris writes from Rangpur that the duties entrusted to the Local Boards were satisfactorily discharged on the whole. The Chairman of the Pabna District Board (Kumar Gopendra Krishna) complains of the delay that the system of Local Boards entails in the disposal of business, on the ground that all points not coming within the scope of the powers delegated to them require to be referred to the District Board for final orders. From this remark and from the context of the Commissioner's report it appears clear that the distribution of duties between the District and Local Boards in Pabna should be scrutinised afresh.

13. From Dacca it is reported that the Local Boards of that district exercised the powers entrusted to them fairly well. Mr. Growse, the Chairman of the Faridpur District Board, complains that, even in the simple duty of distributing the funds allotted for the repairs of roads, the Local Boards have sometimes displayed a want of proper discretion, and in the matter of pounds and ferries their administration cannot be pronounced successful: he therefore cannot recommend any extension of their powers. Mr. Savage, who has long been Chairman of the Backergunge District Board, remarks that the various Local Boards have exercised carefully and satisfactorily the powers delegated to them. Mr. Earle, the Chairman of the District Board, Mymensingh, states that the administration of the Local Boards was generally successful, but in the matter of primary education they do not appear to have shown sufficient interest.

14. Five out of the twenty-one Local Boards in the Patna Division, viz. Bihar, Aurangabad, Buxar, Muzaffarpur, Hajipur, and also all the Local Boards of Saran, failed to utilise the full amount of the allotment made for village roads. The expenditure under Sanitation and Medical Relief was, however, generally satisfactory. In Gaya there was an apparent failure to work up to the allotment, but this, it is stated, has been explained satisfactorily. With regard to

the powers which are or should be given to Local Boards, and the manner in which they exercise them, Mr. Hare, of Muzaffarpur, says:—

The question of giving more powers to Local Boards is now under the consideration of the District Board. It may be possible to make over to them a larger number of roads and more funds to administer. This is the direction in which probably most can be done.

In Gaya, where the Local Boards enjoyed some extended powers, Mr. Macpherson writes:—

They continued to administer the grants for village roads and to control the working of cattle-pounds and ferries. With regard to dispensaries, they are practically only consultative bodies, merely preparing estimates and forwarding recommendations for the District Board, and disbursing most of the expenditure on bills passed by the latter.

15. Mr. Faulder, the Chairman of the Purnea District Board, remarks that the members of the Sadar Local Board rendered much help with their supervision in the repair of roads and bridges. The Chairman of the District Board of Balasore (Mr. Cornish) states that the Local Boards exercised their powers satisfactorily, and increased regularity of inspection and supervision by the Sadar Local Board has been specially noticed. The members of the Cuttack Local Board are said to have taken a lively interest, those of the Kendrapara Local Board a fair interest, and those of Jajpur but little interest, in the proceedings. The Commissioner Mr. Cooke remarks:—

It may be noted that the day is far distant in Orissa when the Local Boards will contend for increased powers. This cannot be expected in the infancy of the institution in a backward division. It is satisfactory to note that these bodies are working fairly on the whole.

16. In perusing the above-quoted remarks, it must be borne in mind that the views taken by local officers of the work of the Boards vary very much according to the standard by which they judge them. As compared with a country where local self-government is an indigenous institution, the total sum of the year's work may not seem great, nor the manner of its execution altogether and universally successful, but compared with the work of other years, which is a fairer standard to adopt, and having regard to the progress made since the introduction of the system, the Lieutenant-Governor is of opinion that the past 12 months have been marked by fair progress.

17. *Union Committees.*—No Union Committees have yet been formed under the Local Self-Government Act; but in accordance with the wishes of the Government of India, the question of forming a few village unions experimentally in selected rural areas in the more advanced districts is under the consideration of this Government.

18. *Financial results.*—The following statement shows the principal items in the income and expenditure of District Boards during the two years 1891-92 and 1892-93:—

INCOME.			
		1891-92.	1892-93.
		Rs.	Rs.
I.—Land Revenue	...	33,829	66,249
VI.—Provincial rates	...	35,10,235	36,27,676
XII.—Interest	...	453	666
XVII.—Police (including pounds)	...	4,72,187	4,57,159
XIX.—Education	...	37,803	62,761
XX.—Medical	...	10,006	17,095
XXI.—Scientific and other Minor Departments	...	3,123	3,631
XXV.—Miscellaneous	...	1,55,633	1,61,812
XXX.—Irrigation—Minor Works and Navigation	...	410	286
XXXII.—Civil Works (including ferries)	...	4,18,759	4,44,518
Contributions	...	8,01,509	11,63,815
Debt	...	7,69,377	11,88,137
Total		62,13,324	71,93,805

## EXPENDITURE.

	1891-92.	1892-93.
	Rs.	Rs.
1.—Refunds ... ..	93	403
18.—Administration ... ..	2,82,895	2,98,983
20.—Police (pounds) ... ..	33,874	35,235
22.—Education ... ..	11,05,375	10,54,477
24.—Medical ... ..	76,323	96,420
26.—Scientific and other Minor Departments ...	8,016	8,579
29.—Superannuation allowances and pensions ..	3,459	3,530
30.—Stationery and printing ... ..	48,527	50,022
32.—Miscellaneous ... ..	40,890	55,390
33.—Famine relief ... ..	12,675	2,86,713
43.—Minor works and navigation ... ..	13,181	12,302
45.—Civil works ... ..	40,43,238	42,88,747
Contributions ... ..	5,130	12,370
Debt ... ..	6,12,636	8,12,821
Interest on debt... ..	5,345	7,758
Total ... ..	62,91,657	70,23,750

*Credit balance.*—The year 1891-92 closed with a credit balance of Rs. 15,93,162. At the close of the year 1892-93, this balance was increased to Rs. 17,63,217.

## INCOME.

19. *Land Revenue (Rs. 66,249).*—The receipts under this head advanced from Rs. 33,829 to Rs. 66,249. The increase is chiefly due to the fact that certain collections which during previous years were credited to “miscellaneous” in the Dacca and Rajshahi Divisions were treated as land revenue in the year under report. The revenue derived from canal tolls in Chittagong also increased from Rs. 12,444 to Rs. 13,741, and fees, fines and forfeitures from Rs. 544 to Rs. 8,984.

20. *Provincial rates (Rs. 36,27,676).*—The whole amount shown under this head represents the receipts of the road cess in each district which is credited to the District Board after deducting the cost of collection and revaluation. Compared with the figures for the previous year, the income derived from this source showed an increase from Rs. 35,10,235 to Rs. 36,27,676, which is attributed to the successful realisation of arrears, to the effect of revaluation, and to collections made in advance. The largest increase during the year was in Muzaffarpur and Gaya—from Rs. 1,77,036 and Rs. 2,14,036 in 1891-92 to Rs. 2,16,192 and Rs. 2,39,315 in 1892-93 respectively.

21. *Pounds (Rs. 4,57,159).*—The receipts from pounds show a decrease of Rs. 15,028 as compared with the collections of 1891-92, although there is an increase of Rs. 13,381 over those of 1890-91. The decrease is variously attributed in different districts to the poor harvests of the year, to the effect of floods, to the exercise of a stricter supervision over the profits of farmers to the practice of insisting on the payment of rents in advance, to cattle disease and other causes. In Burdwan the number of pounds had been allowed to grow unduly large, having been 251 in 1891-92, and a reduction of 64 in their number was so successful that the receipts increased. One pound inspector was entertained throughout the year in each of the districts of Burdwan and Birbhum, and three in Midnapore for some months. They are reported to have done good work in expediting collections and making satisfactory settlements, but their services were dispensed with under Government order No. 42L.S.G., dated 1st December 1892. The Lieutenant-Governor takes this opportunity to point out that it was not intended by that circular that District Boards should be debarred from employing paid inspectors for the inspection of their pounds, and any District Board may entertain a paid official for the purpose. The services of the pound inspector appointed by the Champaran District Board during the preceding year were dispensed with from January last, as no marked improvement had resulted in the working of the pounds, and his duties are now being performed by the Sub-Inspectors of Schools in addition to their ordinary work. A paid inspector of pounds and ferries was appointed by the Shahabad District Board during the second half

of the year under review. In Gaya the sub-overseer under each Local Board is entrusted with the duty of inspecting pounds.

22. In sanctioning the continuance of the system of farming cattle-pounds in Bengal, in deference to the confident opinion expressed by Sir Charles Elliott that on the whole that was the system most suitable to Bengal, the Government of India gave expression to the hope that the Local Government would be able to make such arrangements for inspection as would prevent abuses and ensure the proper exercise of the powers of control given by law. Accordingly, Sir Charles Elliott recommended to the notice of Commissioners of Divisions, the following measures which, if thoroughly carried out, would in his opinion exercise a most important effect upon the administration of pounds, whether farmed or managed direct:—

- (a) the regular and systematic inspection of pounds by officers of Government and of the District Boards;
- (b) the grant of leases for a longer period than one year to persons of known position and solvency residing in the neighbourhood of the pound;
- (c) an alteration of the form of agreement, so as to define better the District Boards' power of control; and lastly
- (d) the introduction of such registers and forms of receipt as would enable a proper check to be kept over the pound-keepers without making unduly close enquiry into the amount of the farmer's profits when the pounds are let in farm.

Sir Charles Elliott was accordingly pleased to direct that pounds should in future be inspected by District Officers and their Assistants and Deputies, as well as by Chairmen of Local Boards, Vice-Chairmen of District and Local Boards, and Sub-Inspectors of Schools, besides the Inspectors employed by the District Boards. The form of the pound keeper's agreement has also been altered, and revised registers and forms of receipts have been prescribed for general use. If the officers named above carry out with care the examination of the books and registers now prescribed, the Lieutenant-Governor is confident that the check will be sufficient to prevent all abuses, and that the District Boards will be supplied with adequate and timely information as to the administration of their pounds.

23. A statement is annexed (Appendix A) giving the number of pounds and their income and expenditure under the several District Boards during the past three years. It shows that the total income from pounds during each of these three years exceeded the estimate of Rs. 4,20,153 on which the Provincial allotment to District Boards was based, thus justifying the often repeated assertion of Government that with judicious management the Boards have in pounds a fertile source of revenue.

24. *Education (Rs. 62,761).*—The receipts under this head increased from Rs. 37,803 to Rs. 62,761. To this increase all the District Boards contribute, except those of Rajshahi, Jalpaiguri, Backergunge, Saran, Cuttack and Puri, in which districts there was a decrease. Compared with the previous year, the receipts in the Dacca Division show a considerable increase, which is due to a contribution of Rs. 11,000 made by Babu Jogendra Kishore Rai Choudry of Ramgopalpur in Mymensingh towards the cost of establishing a technical school at the district Head-quarters. In Pabna, Rangpur, Tippera and Purnea also the receipts have been swelled by private subscription. Elsewhere the increase appears to be mainly due to the refund by Government of contribution paid on account of the pensions of teachers.

25. *Medical.*—(Rs. 17,095). Compared with the previous year, the total income under this head shows an increase which occurred chiefly in the Bogra district of the Rajshahi Division. A sum of Rs. 5,178 for constructing five dispensary buildings in the interior of the district was placed at the disposal of the District Board of Bogra by the Reception Committee formed for commemorating the visit of His Honour the Lieutenant-Governor of Bengal in August 1892.

26. *Scientific and other Minor Departments.*—(Rs. 3,631). The income under this head was Rs. 3,631, against Rs. 3,123 in 1891-92. The receipts are reported from four districts only, viz. the 24-Parganas, Pabna, Dacca, and Saran, and were on account of conservancy arrangements made at various fairs in those districts.

The realization of the small amount of Rs. 6 in the Pabna district has not been explained.

27. *Miscellaneous*.—(Rs. 1,61,812). The income under this head, amounted to Rs. 1,61,812, against Rs. 1,55,633. It includes the proceeds of the sale of old stores, the receipts from serais and staging bungalows and other miscellaneous receipts, notably fines and forfeitures, many of which were awarded in connection with revaluation proceedings. The increase is noticeable under all the heads except "Staging bungalow and Serai fees," in which there is a decrease of Rs. 1,089.

28. *Civil works*.—(Rs. 4,44,518). Of the several items which make up the total under this head, receipts from ferries alone call for notice. Compared with the previous year, there was a falling off of Rs. 7,247. The decrease occurred in fifteen districts, viz. Burdwan, Howrah, 24-Parganas, Murshidabad, Rajshahi, Rangpur, Jalpaiguri, Dacca, Noakhali, Shahabad, Champaran, Malda, Cuttack, Balasore and Puri. The decrease in Burdwan is said to be due to lower prices having been realized at auction for the leases owing to the shallowness of the Bhagirathi river and to the opening of the Bengal-Nagpur Railway, which affected the receipts of the ferry over the Damodar river. The falling off in the 24-Parganas (Rs. 2,447) is due partly to the total of the year 1891-92 having been swelled by large collections of arrear rents, and partly to the resettlement of certain ferries at reduced rents owing to the original lessees having defaulted. The falling off in Murshidabad (Rs. 837) is ascribed to the ferries having been plied for two months only instead of four on account of scanty rainfall. In Jalpaiguri it is due to the adjustment of outstanding balances of deposits received from the ferry farmers in 1891-92, and in Dacca (Rs. 3,882) to the fact that in 1891-92 the gross receipts of the steam ferry at Narainganj were credited to the District Fund without deducting the expenditure incurred on account of establishment, &c. The falling off in Noakhali (Rs. 1,593) is attributed to the shifting of the steamer station, and in Champaran to the resettlement of two of the ferries in the district having resulted in a loss of income. In Balasore the decrease of Rs. 789 is ascribed to the pilgrims preferring the steamer journey to that by land. In Cuttack (Rs. 2,783) it is partly due to the contribution for municipal ferries not being paid in time to be credited during the year, and partly to the inability of certain lessees to pay their dues. The falling off in the remaining six districts is unimportant.

29. In paragraph 24 of the Government Resolution on the working of District Boards for the year 1891-92, it was suggested that the leases executed by ferry farmers should provide for the payment of a quarter's rent in advance as well as the deposit of an equal amount as security, and that the ferries should be leased out for a longer period than one year to persons of known solvency. The Commissioner of the Presidency Division states that these suggestions have as a rule been carried out in the 24-Parganas, and the Commissioner of Patna reports similarly of the districts in his Division. No mention is made of the matter in the reports from other districts, but the Lieutenant-Governor trusts that both in regard to pounds and ferries these suggestions have not been overlooked.

30. *Contributions* (Rs. 11,63,815).—The contributions made to District Boards from the provincial revenues principally to maintain equilibrium between the receipts and expenditure of those bodies amounted to Rs. 11,54,584, against Rs. 8,01,198 in 1891-92. The increase is mainly due to the grants made by Government during the year, as explained in paragraph 50 below, for the maintenance of Government buildings and roads transferred to the care of District Boards, as well as for original works executed by the Boards on behalf of Government. In Chittagong there is an item of receipt of Rs. 4,370, made up of contributions from the Khas Mahal Improvement Fund, from the Sitakhund Lodging house Fund and from the District Fund to defray the cost of excavating a tank at Sitakhund for the supply of good drinking-water for the annual gathering of pilgrims.

31. *Loans*.—The sum of Rs. 30,000 shown against the Dinajpur District Board is part of the loan of Rs. 2,00,000 obtained from Government in 1890 to enable the Board to construct permanent bridges on the more important roads of the district. The loan was to be advanced by Government in five instalments of Rs. 40,000 each, but the District Board drew only Rs. 30,000 during the year under review. The sum of Rs. 2,80,000 shown against Darbhanga represents the amount of advances made by Government during the year to the District Board for carrying on relief works in the district. The amount was in the first instance granted as a loan at  $4\frac{1}{2}$  per cent., but since the close of the year Government has decided that of the whole amount Rs. 1,00,000 is to be



granted to the Board absolutely as a contribution from Provincial revenues towards the expenditure on famine relief, and only the remaining sum of Rs 1,80,000 is to be treated as a loan to be repaid by the District Board in due course.

32. *Deposits and Advances.*—The sums deposited by farmers of pounds and ferries as security for payment of revenue and the advances given by the Boards for the execution of works to be recovered by subsequent adjustment advanced from Rs. 6,39,377 to Rs. 8,78,137. The increase is marked in the Patna and Bhagalpur Divisions. In the former Division it is principally due to the adjustment of advances made in 1891-92 and 1892-93 on account of famine relief works, and in the latter Division to the recoveries of such advances, and to deposits made in Malda by farmers of pounds and ferries.

#### EXPENDITURE.

33. *Administration.*—The cost of general administration has increased from Rs. 2,82,895 to Rs. 2,98,983. The various reasons assigned for the increase are the creation of new posts, the grant of annual increments to employes, the payment of increased charges for establishment in offices of account, control and audit, the expenses incurred in elections and increased charges on account of travelling allowance. In no Division or district does the fluctuation deserve special notice.

34. *Pension and Provident Fund Rules.*—With the exception of Bhagalpur, all the District Boards in Bengal have now adopted the model rules for the management of a Provident Fund for the benefit of those of their employes whose whole service has been under them. The Lieutenant-Governor trusts that in consideration of the admitted advantages of the Provident Fund system, both as regards efficiency and economy, the District Board of Bhagalpur will soon see its way to accepting it. Twenty-nine out of the thirty-eight District Boards have framed pension rules for those of their employes who have been transferred from pensionable service under Government or under the late Road Cess Committee: it is hoped that the remaining nine District Boards, viz., Bankura, Dinajpur, Jalpaiguri, Faridpur, Tippera, Chittagong, Bhagalpur, Purnea, and Malda, will at no distant time follow the example of the majority.

35. *Pounds.*—The expenditure on account of cattle pounds shows an increase of Rs. 1,361. The increase is considerable nowhere except in Rajshahi and Dinajpur, where it was caused by the employment of Inspectors of Pounds during the year. The new statement prescribed by Government and which appears as Appendix A shows that out of 3,389 pounds in the province only 208 are now managed direct. It also shows that the average profit on each farmed pound was nearly Rs. 124, while that on each pound managed direct amounted only to Rs. 49, owing greatly to the fact that while the expenditure on a farmed pound averaged only Rs. 5, that on pounds managed direct reached the high figure of Rs. 90. As a matter of fact the system of direct management now survives only in Bihar and Orissa.

36. *Education.*—The expenditure on education during the year under report amounted to Rs. 10,54,477 against Rs. 11,05,375 in the year 1891-92, showing a decrease of Rs. 50,898. This decrease occurred in all the districts, except fourteen, viz., 24 Parganas, Murshidabad, Faridpur, Mymensingh, Tippera, Noakhali, Chittagong, Patna, Darbhanga, Balasore, Rangpur, Purnea, Puri and Pabna. The figures in the margin taken from Form No. III, prescribed by the

	1891-92.	1892-93.
	Rs.	Rs.
Inspection ...	2,50,575	2,31,694
Special schools ...	13,442	23,031
High " ...	...	1,100
Middle " ...	80,319	74,555
Primary " ...	3,78,241	3,26,110
Grants-in aid ...	2,97,610	3,17,929
Scholarships ...	19,448	36,867
Miscellaneous ...	65,494	45,802
Refunds ...	261	289
Total ...	11,05,375	10,54,477

Government of India and appended to the Divisional Reports, show how much was spent in 1891-92 and in the year under review by District Boards on each main head of expenditure. The fluctuations under almost every head are so large as to raise a doubt whether the figures have been compiled on the

same system in both years, and the Lieutenant-Governor considers it useless to comment upon them. He is the less inclined to do so, because he caused to be prepared during the year statistics which will be found as Appendix B in a form which, it was hoped, would set forth more clearly the amount really expended under each head, and would also bring the figures supplied by the local officers into accord with those furnished by the Director of Public Instruction in his annual report. The second of these expectations has not been realised, and on this subject separate orders will be issued. The value of the new form will not be fully appreciated till the figures for the current



year come to be reviewed and compared with those of the year just past, but even as it is, the new table yields the following figures, which, in the opinion of His Honour, afford a more accurate view of the educational expenditure of the District Boards than the

	Rs.	Rs.
Inspection	...	2,31,011
Training and Special Schools—		
Charges	17,427	
Grants-in-aid	2,781	
Scholarships	1,546	21,754
High Schools—		
Charges	1,100	
Grants-in-aid	2,135	
Scholarships	65	3,300
Middle Schools—		
Charges	50,907	
Grants-in-aid	1,82,959	
Scholarships	9,534	2,43,400
Primary Schools—		
Charges	60,521	
Grants-in-aid	4,02,807	
Scholarships	12,745	4,75,873
Buildings and furniture	...	6,488
Contingent charges	...	38,704
Refunds	...	288
Total	...	10,20,818

authorized forms hitherto in use. The main heads of expenditure are detailed in the margin, and they show that out of the total expenditure, 46·6 per cent. was spent on primary schools, 23·8 per cent. on middle schools, and 22·6 per cent. on Inspection. In the Lieutenant-Governor's opinion too large a proportion of the funds of the District Board is devoted to other than primary education: in the Resolution on the administration of municipalities in 1891-92 and in other places Sir Charles Elliott has

inculcated the principle that until full provision has been made for primary education, no part of a Local Fund should be diverted to the support of education of a higher kind, which is beyond the needs of the majority of tax-payers, and which may well be paid for by those who desire it. To these principles he again wishes to draw attention, and desires that they may not be lost sight of when District Boards prepare and Commissioners of Divisions scrutinise the budget estimates of District Boards for 1894-95.

37. Descending to district details, the table below shows the proportion of its ordinary income which each District Board spent during 1892-93 on education generally and on primary education in particular :—

DISTRICTS.	ORDINARY INCOME IN 1892-93.	EXPENDITURE ON—		PERCENTAGE ON ORDINARY INCOME OF EXPENDITURE ON—	
		Primary education	All education.	Primary education.	All education.
1	2	3	4	5	6
	Rs.	Rs.	Rs.		
Bardwan	2,43,925	23,529	46,763	9·6	19·1
Bankura	91,141	18,086	30,115	19·8	33·04
Bibhum	90,718	9,436	18,941	10·4	20·8
Midnapore	2,01,644	28,362	58,171	14·06	28·8
Hoochly	1,81,281	16,800	37,708	9·2	20·8
Howrah	58,924	7,882	18,598	13·3	31·5
24 Parganas	2,49,188	21,889	43,237	8·7	17·3
Khulna	95,666	12,332	27,468	12·9	28·7
Nadia	97,722	10,473	29,667	10·7	30·3
Jessore	1,32,000	14,083	34,916	10·6	26·4
Murshidabad	91,477	11,323	21,913	12·3	23·9
Dinajpur	1,38,009	10,976	26,667	7·9	19·3
Rajshahi	1,13,644	10,837	22,410	9·5	19·7
Ranepur	1,91,959	17,725	45,336	9·2	23·6
Bogra	67,526	4,117	13,739	6·09	20·3
Pabna	1,04,754	12,996	28,077	12·4	26·8
Jalpaiguri	1,93,862	8,503	10,141	4·8	5·2
Dacca	2,02,987	17,438	41,308	8·5	20·3
Faridpur	1,26,287	12,029	30,078	9·5	23·8
Backerganj	1,65,203	21,041	37,800	12·7	22·8
Mymensingh	2,76,203	23,726	49,632	8·5	17·9
Tippura	1,77,926	24,733	42,210	13·9	23·7
Noukhal	1,64,519	12,735	26,508	7·7	16·1
Chittagong	1,59,736	9,260	23,116	5·7	14·4
Patna	2,23,163	17,546	25,364	7·8	11·3
Gaya	3,02,070	12,277	20,533	4·06	6·7
Shahabad	2,07,516	9,003	15,439	4·3	7·4
Darbhanga	2,38,849	14,719	18,755	6·1	7·9
Muzaffarpur	2,51,850	11,472	17,628	4·5	6·9
Baran	2,10,055	12,549	20,358	5·9	9·6
Champaran	1,04,271	11,464	17,645	10·9	16·9
Monghyr	2,07,737	9,925	20,999	4·7	10·1
Bhagalpur	2,01,987	8,283	18,712	4·09	9·2
Purnea	1,45,430	9,290	21,072	6·3	14·5
Malda	59,780	6,978	14,870	11·7	24·8
Cuttack	1,05,466	14,879	33,915	14·1	32·1
Balasore	66,885	12,395	27,901	18·5	41·7
Puri	55,178	6,102	16,709	11·05	30·2
Total	59,96,437	5,12,168	10,54,477	8·5	17·5

The object of this statement is apparent from paragraphs 31-33 of the Resolution on the Report for 1891-92. Sir Charles Elliott there expressed the hope that those District Boards which contributed to education less than 10 per cent. of their ordinary income, would raise their grants and increase the number of schools maintained or aided by them, as he looked on it as one of the primary duties of a District Board to afford the opportunity of obtaining elementary education to every boy residing within its jurisdiction, and it was desired that a more liberal expenditure should be sanctioned for this purpose during the current year. His Honour is mortified to notice that so far from this being the case, the average expenditure on education incurred by the District Boards during the year was 17·5 per cent. of their ordinary income against 20·5 in 1891-92, and that on primary education 8·5 per cent. against 9·9. The highest place in respect of educational expenditure as a whole is taken by the District Boards of Balasore, Bankura, Cuttack, Howrah, Nadia and Puri, all of which devoted 30 per cent. or more of their income to this purpose, while fourteen others show an expenditure 20 per cent. or more. On the other hand, in all the districts of the Patna Division, the expenditure was below the general average, and in five, viz., Gaya, Shahabad, Darbhanga, Muzaffarpur, and Saran, it was below 10 per cent. of their income. In Bhagalpur it was 9·2 per cent. and in Jalpaiguri it was only 5·2 per cent. In last year's Resolution the Lieutenant-Governor drew attention to the low expenditure in the first four of the districts just named, and he is dissatisfied to find that the percentage of expenditure, far from having increased, is now in each case less than that in the previous year. The explanations given are not adequate, and the Lieutenant-Governor trusts that he may not have occasion to utter a similar admonition again.

38. Comparing expenditure on education generally with that on primary education, the District Boards of Tippera, with 13·9 per cent. out of 23·7 and of Champaran with 10·9 per cent. out of 16·9, deserve special commendation, as do those of Bankura, Murshidabad, and Backergunge. On the other hand, the principles stated in paragraph 36 have been ignored by twenty-five District Boards, all of which have devoted less than half their educational expenditure to primary education, the most flagrant cases being Nadia, Bogra and Jalpaiguri.

39. *Special Schools.*—The Backergunge District Board continues to support a technical school at Barisal, which is said to serve a very useful purpose as a survey school. A site has been acquired for the technical school which Babu Jogendra Kishore Chaudhuri of Rangopalpur has founded at Nasirabad, the head-quarters of the Mymensingh district, and a commodious building has been erected. The Bihar Industrial School was opened at Bankipore on the 25th November 1892: the endowment consists of the surplus balance from the Prince of Wales' Reception Fund collected in 1876, which, with interest, amounted to Rs. 2,50,410 at the close of the year. The number of boys at present under instruction is 53, viz. 28 apprentices and 25 in the artisan class. All the boys except six hold scholarships from the various District Boards or receive an allowance from the endowment fund of the school. There are five special schools under the Rangpur District Board, namely, one technical school, two madrassas and two Sanskrit *tol*s. A technical school in which surveying, drawing, mensuration, and carpenter and blacksmith's work are taught was started at Pabna by private subscriptions, and made over to the District Board during the year. The cost of the school building, furniture and tools was over Rs. 16,000. Besides the technical school, the Pabna District Board paid Rs. 10 a month to a Sanskrit *tol* at Salgorea during the year. A new class has been opened in the Comilla Elliott Artizan School since August 1892 for teaching smith's work: one passed carpenter pupil of this school is said to have set up a workshop in his native village. The Maharaja of Hill Tippera has given a donation of Rs. 1,700 towards this institution, and Maharaj Kumar Binay Krishna of Sobhabazar in Calcutta has promised a yearly grant of Rs. 500 for five years. The scheme for starting a technical school at Noakhali received the sanction of Government in September last, but the school could not be opened till the latter end of March for want of a competent head-master. A technical school was opened in the town of Burdwan on the 11th April 1893; it is maintained by the Burdwan Board; but the local municipality

contributes Rs. 20 a month. The Mysadal Raja's Technical School under the management of the Midnapore District Board is now supported by subscriptions and grants from the District Board and Government. In Bankura the number of Sanskrit tols increased from 30 to 42, and the number of pupils from 287 to 335, but the number of Arabic or Persian schools decreased from 8 to 5, and the number of pupils from 141 to 59. In Hooghly there were 70 Sanskrit tols with 346 pupils, and 36 Arabic and Persian schools with 507 pupils, besides 34 elementary schools with 230 pupils. In Howrah there were 12 Muhammadan schools teaching the Koran with 168 pupils. There were also 10 tols attended by 49 young men. In Burdwan 9 maktabs were started during the year, teaching Persian and Urdu in addition to Bengali. The District Boards of Howrah, Midnapore, Balasore, and Cuttack granted scholarships to students in the Sibpur Engineering College or in other similar institutions.

40. *Female Medical Education.*—Scholarships to female medical students were granted by the District Boards of Burdwan, the 24 Parganas, Backergunge, Mymensingh, Patna, Saran and Puri. In Bankura, Faridpur, Champaran, Muzaffarpur, Rajshahi, Pabna and Dinajpur scholarships were available, but no candidates came forward. Some progress was made during the year in the direction of providing medical attendance for women in addition to that mentioned above.

41. *Medical.*—The total outlay under this head amounted to Rs. 96,420, being Rs. 20,097 more than in the previous year. The excess is chiefly in the expenditure on "Hospitals and Dispensaries," but all the sub-heads show an increase except "General Medical Establishment." The increase is satisfactory so far as it goes, but the percentage on the total expenditure even now amounts only to 1.6 on the ordinary income for the year, and this appears to the Lieutenant-Governor far too low in a province many of the districts of which are notorious for the insalubrity of their climate. In the healthier districts no doubt there is less necessity for any large expenditure, but there can be no question that the District Boards of Hooghly and Murshidabad, who have spent nothing during the year on medical relief, have failed to realize the importance of this branch of their duties. The District Boards of Nadia, Dacca, Khulna, Malda, Jalpaiguri, Midnapore, Howrah, Rajshahi and Darbhanga, whose expenditure amounted to less than Rs. 1,000 each, are in a scarcely better position. The Lieutenant-Governor hopes that prompt measures will be taken in these districts to carry out the very obvious duty of bringing medical relief within reach of the inhabitants of non-urban areas. Even among those District Boards who are shown to have spent something on the medical requirements of their districts, there appears to be a tendency to make over their grants bodily to municipalities, and thus avoid the responsibility and trouble of seeing the money properly disbursed. The medical expenditure of the District Board of Bankura, for instance, as of Nadia, is represented solely by grants to municipal institutions, and no provision is made for the inhabitants of the district. In Birbhum, out of a total expenditure of Rs. 2,444, Rs. 1,441 were expended in this way. The Lieutenant-Governor admits that, in so far as inhabitants of the interior of districts make use of municipal dispensaries and hospitals, it is equitable for District Boards to make some contribution towards the support of these institutions, but it should always be borne in mind that the District Fund is intended primarily for expenditure in the district outside municipal areas. From an examination of Form III, which exhibits the expenditure of the various District Boards during the year under report, it will be seen that more than half of the total medical expenditure of the year was incurred in the two Divisions of Patna and Chittagong, which, it may be noted, are by no means the most unhealthy in the province. Of all the districts Tippera heads the list with an expenditure of Rs. 9,636: besides contributing to the Dufferin Fund and to the municipal institutions at Comilla and Brahmanbaria, the Board maintained eleven dispensaries. The number of patients in those dispensaries shows a most satisfactory increase from 41,004 in 1891-92 to 54,042 in the year under report. The zenana hospital, called after Nawab Sahiba Faizunissa Begum, who gave the site and Rs. 10,000 for it, is still under construction. The Patna district comes next with an expenditure of Rs. 9,404, or nearly double that of the previous year. The increase is due chiefly to the establishment of six new dispensaries. In Gaya the expenditure of Rs. 8,832 was slightly less than

in the previous year. Of this sum Rs. 3,578 went to the Gaya Pilgrim Hospital, and the remainder (except for an item of Rs. 105 for vaccination) to dispensaries. In Chittagong Rs. 6,612, or more than double the outlay of the previous year, were spent under this head. The Board employs a lady doctor, paying her Rs. 100 a month, and with the help of local subscriptions maintains five dispensaries, which are reported to be working well and to be appreciated by the people. The District Boards of Shahabad and Saran each devoted more than Rs. 5,000 to their medical requirements; in the latter district Rs. 4,179 represents the cost of maintenance of four mufassal dispensaries. The District Board of Bogra have decided to open five additional dispensaries in the interior of the district, the money for the buildings having been subscribed on the occasion of the visit of His Honour the Lieutenant-Governor to the district in August 1892. In Faridpur a new dispensary has been opened at Bhanga, and the District Board has expressed its willingness to come forward with aid in any case where it can be shown that the people want a dispensary and will contribute to it, but the Lieutenant-Governor is of opinion that unless some steps are taken to bring the advantages of this offer forcibly home to the people, the poor and ignorant for whose benefit charitable dispensaries exist will not avail themselves of it. In all these districts the work during the year has been satisfactory, and the Lieutenant-Governor trusts that the progress made will encourage the Boards of other districts to follow their good example.

42. The Tippera District Board contributed Rs. 50 a month to the pay of a lady doctor, and the Chittagong District Board continued, as in the previous year, to make a grant for the same purpose. Trained midwives were engaged by the District Boards of Saran and Shahabad. In Birbhum an attempt was made, but without success, to obtain the services of a lady doctor, and the Midnapore Board have resolved to devote a monthly sum to the same purpose. Srimati Kailash Basini Dasi, who has received a medical education at the cost of the Rangpur District Board, commenced during the year, according to her agreement, to practise in the district. The District Board of Gaya expended Rs. 557 during the year in the training of midwives at the Gaya Pilgrim Hospital. As no lying-in patients, however, resort to it, the Board has had for the present to abandon the scheme as one for training midwives, but since the 1st of January 1893 it has kept on the nurses as an establishment for the female ward of the hospital. An opportunity of training in midwifery is expected to be obtained when the Dufferin Female Hospital is established.

43. *Sanitation.*—Particulars of the sanitary works undertaken by District Boards during the year are given in Appendix IV. The total expenditure of the year amounts to Rs. 1,31,915 as against Rs. 56,119 in 1891-92:

	1891-92.	1892-93.
	Rs.	Rs.
Improvement of water-supply	37,278	97,402
Ditto of village sites	1,176	635
Conservancy of towns and villages	2	
Sanitation at fairs, &c.	6,497	8,066
Other expenditure on sanitary objects	11,166	25,812
Total	56,119	1,31,915

details are given in the margin. The advance is respectable, but the amount is still comparatively insignificant, representing only 2·7 per cent. of the ordinary income of District Boards during the year, and it is subject to the

important qualification that Rs. 52,500, or more than one-third of the whole amount, were expended in the Monghyr and Bhagalpur districts in digging new and clearing out old tanks as measures of famine relief, and not primarily for any sanitary purpose. It is also disappointing to find that the greatest diversity exists in the action of the different District Boards in this matter. Bogra spent absolutely nothing, and the expenditure in Howrah, Khulna, Pabna, Backergunge, Chittagong and Malda has been less than Rs. 500. The Divisional expenditure, excluding that on tanks in Bhagalpur and Monghyr, is detailed in

	Rs.
Burdwan	8,421
Presidency	10,619
Rajshahi	11,135
Dacca	20,753
Chittagong	3,926
Patna	18,523
Bhagalpur	15,835
Orissa	2,672

the margin. It is clear that most District Boards are not yet alive to their duties in respect of sanitation, which is a matter of vital importance to the people. In this regard Bengal is far behind other provinces of the Empire, while the need for sanitary reform is greater in these provinces than in most others. In the Resolution on the Sanitary Commissioner's Report for 1892 the Officiating Lieutenant-Governor dwelt upon the importance of a pure water-supply, and Sir Charles Elliott, though he does not go so far as to desire to

increase taxation generally for the purpose, would view gladly the inception by local bodies of moderate and well-considered efforts to improve water-supply, drainage and the conservancy of rural areas. His Honour hopes that during the current year a suitable proportion of the income of District Boards may be devoted to these objects.

4. Among districts the expenditure incurred in the improvement of water-supply was largest in that of Bhagalpur, amounting to Rs. 45,037. Of this amount, Rs. 35,915 were expended in the excavation of tanks in the Supul sub-division during the late scarcity, and Rs. 8,852 in the re-excavation of 14 tanks in the Madhipur sub-division. The districts of Murshidabad, Bogra, Tippera, Gaya, Darbhanga and Balasore also show no expenditure under the head of water-supply. The District Boards of the Dacca Division, except that of Dacca district, appear to have realised that small sums spent at random throughout a district are wasted and lead to nothing, but that the result is very different if the same amounts are devoted to furthering some recognized scheme. Mr. Savage, Chairman of the Backergunge District Board, says that in his opinion one tank reserved for the supply of drinking-water is required in every village in the district, and the Board has voted Rs. 10,000 for expenditure during 1893-94 in commencing to carry out the scheme. The Chairman of the District Board of Mymensingh reports that, in view of the heavy cost of excavating tanks and of constructing masonry wells, it is proposed to consider the introduction of ring wells or tube wells. The Chairman of the District Board of Faridpur states that the tanks excavated or re-excavated in that district are more or less a failure on account of the sandy nature of the soil, and a general scheme for sinking wells is therefore under the consideration of the Board. In the Chittagong Division the District Board of Noakhali have devised a scheme for reserving tanks for drinking purposes, and hope to induce the owners of centrally situated tanks to make them over to the management and control of the Board. The Chairman of the District Board of Rajshahi raises an old objection to the digging of wells, viz., that they will not be used by all castes and sects alike. The Lieutenant-Governor agrees with the Commissioner of the Division that the difficulty does not seem to be of much importance. The Commissioner of Patna writes:—

“On the whole I consider that sufficient attention has not been paid in the different districts during the year under review to the important matter of taking over and maintaining roadside wells under section 76 of the Act along the most important thoroughfares. This is undoubtedly one of the most efficacious as well as the most simple and cheapest means of preventing the spread of contagion among, and especially by, wayfarers passing through and coming from unhealthy localities, and is particularly applicable to routes frequented by pilgrims. I am issuing a circular on the subject to the different District Boards, which I trust will meet with attention.”

Efforts in this direction have the Lieutenant-Governor's full approval, since the matter is one not only of local, but, along pilgrim routes, of Imperial importance.

45. Towards the improvement of village sites and the conservancy of villages only Rs. 635 were spent, the greater part of which was in Shahabad. Doubtless the District Boards rightly consider that save in very exceptional cases expenditure on this work should be defrayed by the villagers themselves.

46. *Sanitation at fairs.*—The Birbhum Board undertook the sanitary arrangements at the Joydeb, Kenduli, and Bakreswar fairs. The District Board of Dacca provides for sanitary and conservancy arrangements at the Kartick Baroni and Nagalbund fairs, and recovers the cost from the zamindars on whose lands the fairs are held. The District Board of Saran spent Rs. 3,871 on sanitary arrangements at the different fairs held in that district, of which Rs. 3,314 were expended on the arrangements for the Sonepur fair. Sanitary precautions were adopted by the District Board of Shahabad at the Barahpore fair at a cost of Rs. 66. In Patna a sum of Rs. 25 was spent by the Sadar Local Board for sanitation at the Phulwari fair. It is explained that the local zamindars in this district are accustomed to make their own arrangements for the sanitation of fairs held on their property.

47. *Stationery and Printing.*—There was an increase of expenditure under this head, amounting to Rs. 1,495. The increase was largest in the Patna Division, particularly in the districts of Muzaffarpur and Saran. The charges under this head in the Patna Division are always very high, and the attention

of the Commissioner is invited to the matter in order that steps may be taken, if necessary, to curtail in the coming year any undue expenditure in this direction.

48. *Miscellaneous*.—Miscellaneous charges rose from Rs. 40,890 to Rs. 55,390. The increase is partly due to the larger expenditure on serais and dâk bungalows. Miscellaneous refunds also rose from Rs. 4,261 in 1891-92 to Rs. 8,921. Contributions towards the Provident Fund amounted to Rs. 1,193, and were made by the District Boards of Rajshahi, Jalpaiguri, Dacca, Faridpur, Backorgunge, Noakhali, Monghyr, Purnea, and Malda only. In two districts rewards were paid for the destruction of wild animals and snakes.

49. *Famine Relief*.—The largest sum expended under this head was that spent by the District Board of Darbhanga, amounting to Rs. 2,69,816. The relief works in that district were commenced in March 1892, when the distress became apparent, and were closed in the following July. They consisted of raising and repairing old village tracks, about 582 miles in length, and the excavation and reclamation of sixty-seven tanks. No new roads were undertaken in connection with the relief works, as the distress did not continue long enough to render this necessary, but eight large projects for new roads were prepared in case of emergency. The large excess of expenditure over the funds at the disposal of the Board has been met by a contribution of one lakh of rupees from the Provincial revenues and a loan of Rs. 1,80,000. In Muzaffarpur the expenditure under this head aggregated Rs. 77,854, but it has been charged to the respective service heads, and thus absorbed in the ordinary expenditure of the year. The work consisted in raising and re-aligning twenty-two roads and in reclaiming and re-excavating sixteen tanks. The District Boards of Monghyr and Bhagalpur spent Rs. 1,595 and Rs. 6,609, respectively, on gratuitous relief. In addition to this the Monghyr Board spent Rs. 8,000 and the Bhagalpur Board Rs. 77,752 on other relief works. These amounts have been shown under the head of Civil Works, the labourers not having been paid in excess of normal rates. The amount shown against Purnea, viz. Rs. 3,413, represents the excess of the cost of relief works over normal rates. In Dinajpur Rs. 20,192 were provided for affording relief to landless labourers and petty jotedars, out of which Rs. 17,841 were spent in improving roads by piece-work, and were accounted for under the head of repairs to roads. Besides these, some expenditure on relief works was incurred by the District Boards of Bogra, Gya, 24-Parganas, Jalpaiguri, Saran, Balasore, Cuttack, and Puri.

50. *Civil works*.—A very important innovation was introduced during the year under review. In consequence of the duplication of work and establishments caused by the maintenance side by side of Executive and District Engineers in certain districts, Sir Charles Elliott suggested to the Government of India that the whole of the work placed under the Executive Engineers of the Burdwan, Dacca, and Chittagong Public Works Divisions, as well as some of that under the Executive Engineer of the Darjeeling Division, might be entrusted to the District Engineers in those districts without any detriment to the efficiency of the work, and with considerable advantage as regards economy. The proposal having met with the approval of the Government of India,

Burdwan.  
Bankura.  
Birbhum.  
Haghi.  
Howrah.  
Dacca.  
Faridpur.  
Backorgunge.  
Mymensingh.

Tippera.  
Noakhali.  
Chittagong.  
Purnea.  
Bhagalpur.  
Malda.  
Monghyr.  
Jessore.

Khulna.  
24-Parganas.  
Jalpaiguri.  
Rangpur.  
Dinajpur.  
Bogra.  
Palna.  
Rajshahi.

the maintenance and repairs of all provincial works, consisting mainly of buildings, in the districts named in the margin, which were under the Executive Engineers of the abovementioned Divisions, and also of the Imperial buildings,

viz., post-offices and telegraph offices, were made over to the District Boards, and placed in charge of their District Engineers, the necessary funds for their upkeep being transferred to the Boards at the same time. As, however, it appeared desirable to introduce the scheme for a short period only in the first instance in order to test its working, the grants for the maintenance of the works in question, aggregating Rs. 1,35,468 per annum, were made for a period of four years, commencing from 1892-93. In consideration also of the fact that these transfers would throw increased work and responsibility

on the District Engineers, a further annual grant of Rs. 10,200 was made to District Boards to meet the cost of the special allowances to be given to their District Engineers.

51. The statement below compares the expenditure under the head "Civil works" for the past two years—

YEAR.	Ferry establishment, contingencies and refunds.	Original works.	Repairs.	Establishment and contingencies.	Tools and plant.	Water-supply and water-works.	Drainage works.	Total.
1891-92	Rs. 38,458	Rs. 12,85,516	Rs. 20,83,807	Rs. 5,61,463	Rs. 26,171	Rs. 84,147	Rs. 8,556	Rs. 40,43,338
1892-93	43,591	1,407,845	20,99,233	5,92,197	3,259	1,03,889	10,783	42,36,747

The total expenditure shows an increase of Rs. 2,45,509, to which all the heads in the table contribute, the largest increase being under the head "Water-supply and water-works," due in great part to the expenditure of Rs. 45,037 in Bhagalpur on tanks as noticed above. The expenditure under head "Original works" was largest in Mymensingh, where it amounted to Rs. 1,24,360. A considerable portion of this sum represents expenditure of funds made over to the Board for the construction of Imperial and Provincial works under the system described above; but besides this, five important bridges and several new roads were constructed. In Patna the expenditure on original works amounted to Rs. 1,22,953. A girder bridge over the Purnpun river, estimated to cost more than a lakh of rupees, was more than half completed, and Rs. 39,217 were spent on the improvement of the Patna-Hilsa Road. The expenditure on original works in Muzaffarpur is shown to be Rs. 1,04,680, but of this Rs. 66,790 was of the nature of famine relief. The same cause, it is to be presumed, accounts for the large total in the Darbhanga district, though the fact is not definitely stated in the Commissioner's report. In Gaya the timber bridge over the Khuri river in the Nawada subdivision was completed at a cost of Rs. 53,587. In Burdwan Rs. 12,000 were spent during the year on the Victoria Bridge over the Khori river, which was nearly completed. The office buildings of the Dinajpur District Board, costing Rs. 13,115, were completed before the close of the year. There

	1891-92.	1892-93.
Original works	Rs. 12,13,966	Rs. 12,01,133
Repairs	20,35,003	19,77,246
	32,48,969	31,78,379

is a decrease of Rs. 70,290 in the total expenditure on communications, the figures being as in the margin. The adequate maintenance of the roads is a matter to which the attention of every District Board should

always be given, since it was for this purpose that the cess was first imposed, and in no other way can the interests of the general taxpayers be better served. Under the head of repairs the largest expenditure was in the 24-Parganas, owing to the special repairs which had to be executed to the Diamond Harbour Road out of funds advanced by Government. Burdwan

Midnapore.	Bhagalpur.
Darbhanga.	Chittagong.
Purnea.	Monghyr.
Gaya.	Shahabad.
Moochly.	Patna.
Saran.	Jessore.
	Dinajpur.

comes next with an expenditure of more than a lakh and-a-half of rupees. In the thirteen other districts named in the margin, the expenditure on the repairs of roads exceeded half a lakh of rupees. Under the head of establishment by far the largest expenditure was incurred in the Patna Division.

It is more than double that of any other Division, and is the natural result of the expenditure on civil works being more than twice that of any other Division.

		Expenditure.	
		1891-92.	1892-93.
		Rs.	Rs.
Burdwan Division	...	35,245	27,632
Presidency	...	57,127	44,764
Rajshahi	...	20,250	21,859
Dacca	...	79,498	62,327
Chittagong	...	53,843	37,364
Patna	...	61,472	77,070
Bhagalpur	...	48,445	49,339
Orissa	...	24,973	16,984
Total	...	3,66,853	3,40,339

52. *Village Roads.*—The statement in the margin shows the outlay on village roads in each Division during the past two years, and the length of roads maintained—



The expenditure was highest in the Patna Division, viz., Rs. 77,070, which is said to represent about 8·76 per cent. of the expenditure incurred on original and repair works on the main roads in the Division. In Saran, where the expenditure in previous years was very high, the list of village roads was carefully revised with the result that the expenditure was reduced. The Lieutenant-Governor has read with pleasure that the misunderstanding which occurred during 1891-92 between the members of the District Board of Darbhanga and some of the indigo-planters of the district was removed during the year, and that the Board received great help from these gentlemen in the supervision and maintenance of the village roads in the vicinity of their respective factories. In Saran, Malda, and Monghyr also a certain number of village roads were repaired through the agency of the resident indigo-planters and other private gentlemen. It is satisfactory to note that in the Feni subdivision (Noakhali) Rs. 756 were paid as a local contribution for the roads by the villagers interested, and the land in all instances was given free of cost, and that similarly certain villagers in the Hugli district supplemented by contributions the Board's grant for the erection of a bridge. As in the previous year, the total expenditure on village roads varied enormously in different districts, from Rs. 18,910 in Saran to Rs. 478 in Jalpaiguri. The Commissioner of the Presidency Division remarks that he grudges every pice spent on village roads. This is hardly in consonance with the Lieutenant-Governor's remarks in last year's Resolution, in which he said—"Under any circumstances an allotment of Rs. 2,500 seems insufficient for so large a district (Nadia), and the Lieutenant-Governor trusts that the District Board will take steps to see that this important branch of their duties is more carefully looked after in future." No doubt village roads are useful chiefly as feeders to the main roads, but no district is so well provided with the latter as to be able to dispense entirely with the former, and in many districts of the province, notably in Bihar, many of the so-called village roads differ little in importance from those which are accepted as the main arteries of communication of the district.

53. *Water communications.*—Expenditure under this head occurs for the most part in the eastern districts. The Telkupi *khal* in Pabna was kept navigable during the year at a cost of Rs. 443. In Backergunge Rs. 149 were expended during the year in clearing jungle from the banks of the Bokhainagar river, and of the *khal* from Berer Done to Bighai river in order to make tow-paths. In Mymensingh three *khangs* in the Kishoreganj subdivision were improved and cleared of weeds and plants, with the double object of improving communications and of supplying good drinking-water to the people of the villages on their banks. Seventy-two important navigable channels in the Noakhali district have been taken over by the District Board. The Daudpur *khal* is being deepened, and a big bend near its mouth straightened. The channel from Gangapur to the Megna river is also being improved, and, when completed, will greatly facilitate boat communication. The side excavations of the road from Noakhali to Feni have been converted into navigable channels, and greatly extended in many parts; the re-excavation of the Gokarna *khal* in Tippera was also carried out during the year. The Commissioner of Dacca writes—"I am surprised that so little is done under this head in the three southern districts, where water must always be the chief means of communication." The Lieutenant-Governor concurs that in all districts where this is the case and where expenditure on roads is comparatively small, a larger outlay in improving navigable channels is in every way advisable.

54. *Steam communications.*—The District Board of Dacca still maintains a steam-ferry between Narainganj and Munshiganj, which is of great benefit to the public. In Backergunge the Board subsidized the steam service between Barisal and Khulna to the extent of Rs. 6,000, and that between Barisal and Patuakhali to the extent of Rs. 1,200 per annum. The Malda District Board contributed to the cost of the steam service between English Bazar and Rampur Boakia, the total amount paid during the year being Rs. 1,282. The District Board of Noakhali continued to pay Rs. 200 a month to the Bengal Central Flotilla Company for their steamer service from Barisal to Noakhali. The service between Sandwip and the mainland was not maintained regularly, and steamers which used to ply twice a week before ran once a week only during the winter season. In Tippera a grant of Rs. 300 was made by the District Board



to a Steamer Company for working a launch between Daudkandi and Shatnal, which commenced running from the 13th November 1892 and continued until the close of the year. One of this company's steamers now plies daily between Daudkandi and Narainganj, thus establishing through communication for passengers and goods between Daudkandi and Goalundo. Another steamer plied daily between Hajiganj and Chandpur throughout the year, and received a monthly subsidy of Rs. 250. Owing to the irregular working of this steamer, the Board determined to withdraw its grant from the 1st April 1893 until the arrangements became satisfactory. Negotiations are being carried on by the District Boards of Backergunge, Faridpur, Mymensingh and Noakhali for the further development of steam communications in those districts.

55. *Miscellaneous Public Improvements.*—In Faridpur a sum of Rs. 792 was spent under this head for collecting statistics of the traffic for the extension of the Eastern Bengal Railway from Panchooria to Govindapur and for some enamelled mile-posts for some of the important roads in the district. Some attention is reported to have been paid in almost all districts to arboriculture, and some money spent in planting and maintaining trees along the sides of roads. In Gaya the expenditure amounted to Rs. 6,330, of which Rs. 2,574 represents the cost of iron fences for young trees. In Saran no new trees were planted, but the cost of fencing and maintaining those already existing came to Rs. 4,157. In Champaran Rs. 322 was spent principally in planting 22,525 tree seeds along the sides of several district roads to demarcate the boundaries.

56. *Railway feeder roads.*—A feeder road, one mile in length, connecting the Galsi Railway Station, in the Burdwan district, with the 87th mile of the Grand Trunk Road, was under construction. The earthwork was completed during the year at a cost of Rs. 2,495, and arrangements are being made for metalling. The plan and estimate for the construction of the three miles of road from the Debipur Railway Station to village Debipur, at the expense of a local zamindar, Babu Kali Das Singha, have been prepared, but the work could not be commenced until the lands required for the purpose had been acquired. In Dacca the railway feeder road from Kudda (Kasimpur) to Simulia, which was undertaken in 1891-92, was in progress during the year under report, but was not completed, as the necessary land had not yet been taken up. Steps have been taken to secure the land and complete the work in the current year. Great improvements were also carried out to the railway feeder roads from Tangi to Kaliganj, Rajendrapur to Mirzapur, and Rajendrapur to Kapasia in the same district. In Mymensingh the earthwork and pipe culverts of the two important feeder roads from Balipara to Nandail (15 miles) and Mymensingh to Porabaria (17 miles) were completed during the year. The work in the first 6 miles of another feeder road from Gaffargaon to Guptabrindaban (20 miles in length) was taken up during the year and some progress made. A mile of the feeder road from Mymensingh to Ishwarganj was metalled, and a feeder road from Kalibazar to Bailore ( $4\frac{1}{2}$  miles) was surveyed during the year.

57. *Tramways.*—The record of work for the year is not large. The schemes for the construction of tramways from Burdwan to Katwa in the Burdwan district and from Lakisarai to Gaya in the Patna Division have fallen through. The proposal to construct a railway from Howrah to Bankura and the Howrah-Sheakhala and Howrah-Amta project are hanging fire. In Birbhum a proposal is under contemplation to open a tramway from Suri to Syinthia or to Ahmadpur, while in the 24-Parganas the question of constructing a light tramway from Barasat to Basirhat is still under the consideration of the Board. In Nadia the Board are still considering the question of constructing a steam tramway from Ranaghat to Krishnagar *via* Santipur, the total cost of which has been estimated at Rs. 6,52,720, excluding the cost of establishing and working the ferry on the Churni. The Commissioner of the Division does not think it a line likely to pay, or one which is much required except for the convenience of the inhabitants of the head-quarters station of Krishnagar.

58. *Public Works Establishment.*—The statement below compares the percentage of the cost of establishment on the total expenditure on public works in each district during the two years 1891-92 and 1892-93:—

DISTRICT.	1891-92.			1892-93.		
	Total outlay on Civil Works (column 85 of Statement III).	Establishment and contingencies appertaining to Public Works (column 80 of Statement III).	Percentage of cost of establishment.	Total outlay on Civil Works (column 85 of Statement III).	Establishment and contingencies appertaining to Public Works (column 80 of Statement III).	Percentage of cost of establishment.
	Rs.	Rs.		Rs.	Rs.	
Burdwan	1,90,461	15,084	7.9	2,12,488	18,261	8.5
Bankura	48,326	9,259	19.1	50,408	9,260	18.3
Birbhum	50,291	8,248	16.3	54,691	8,466	15.2
Midnapore	1,49,772	16,908	11.2	1,29,101	16,536	12.4
Hooghly	1,18,519	16,454	13.8	1,22,960	17,454	14.1
Howrah	32,260	5,061	15.6	32,949	5,138	15.5
24 Parganas	1,97,649	20,654	10.9	2,12,031	17,810	8.4
Khulna	61,868	9,788	15.8	68,712	8,976	13
Nadia	46,187	11,071	23.9	59,645	13,284	22.2
Jessore	1,05,893	17,222	16.2	1,09,261	18,248	16.6
Murshidabad	61,176	11,245	18.3	63,677	12,350	19.3
Dinajpur	1,38,449	14,886	11.1	1,37,072	14,468	11.8
Rajshahi	66,666	12,831	21.1	74,575	13,765	18.4
Rangpur	1,21,665	17,332	14.2	1,28,920	18,171	14.2
Bogra	26,199	3,729	11.0	43,695	6,681	15.2
Pabna	51,090	8,285	16.2	62,397	8,185	15.8
Jalpaiguri	1,16,098	11,510	9.9	1,32,685	13,216	11.2
Dacca	72,789	9,607	13.1	1,33,368	10,868	8.1
Faridpur	43,611	8,102	18.7	87,098	9,337	10.7
Backergunge	1,01,909	12,816	12.5	98,228	13,684	13.9
Mymensingh	2,02,589	20,583	10.1	2,05,14	21,281	10.3
Tippera	1,21,838	12,747	10.4	64,510	11,956	18.5
Noakhali	82,342	11,291	13.7	1,18,287	10,872	9.1
Chittagong	2,24,482	16,150	7.1	1,16,283	20,591	17.7
Patna	1,89,547	24,095	12.7	2,13,826	25,960	13.1
Gaya	2,22,861	31,920	14.3	2,00,032	31,082	15.5
Shahabad	1,57,285	20,528	13.0	1,42,147	21,988	15.6
Darbhanga	1,57,464	32,157	20.4	2,22,981	32,112	14.5
Muzaffarpur	1,58,556	25,440	14.8	1,79,982	26,022	14.4
Saran	1,03,485	25,022	21.1	1,21,911	25,653	21.0
Champaran	78,105	15,488	19.7	78,045	15,285	19.5
Monghyr	1,27,181	20,530	16.1	1,16,216	20,902	17.9
Bhagalpur	1,25,252	23,398	18.6	2,11,059	25,552	12.1
Purnea	1,19,403	18,136	15.1	1,29,577	19,658	15.9
Malda	31,283	7,187	22.8	33,022	7,221	21.8
Cuttack	71,012	10,459	14.7	49,297	10,499	21.2
Balasore	34,571	5,030	14.5	49,076	5,015	10.2
Puri	45,705	6,161	13.4	33,091	6,397	19.3
Total	40,43,238	5,61,464	18.0	42,88,747	5,92,197	14.9

In four districts, viz., Cuttack, Malda, Nadia, and Saran, the percentage exceeded the limit prescribed in the second proviso of section 33 of the Act. In Malda and Saran the excess is said to be due to the fact that the expenditure on Public Works fell short of the budget allotment, and in Cuttack to the non-payment of the bills of contractors that fell due during the year: no explanation is given of the excess in Nadia. In Saran, Nadia, and Malda this provision of the law was similarly neglected in the year 1891-92: the Lieutenant-Governor trusts that early steps will be taken in these districts to curtail the expenditure under this head. It was highest in Nadia (22.2), and lowest in Dacca (8.1). As compared with the previous year, there was an increase in the cost of the establishment in 28 out of 38 districts, viz., Burdwan, Bankura, Birbhum, Hooghly, Howrah, Nadia, Jessore, Murshidabad, Rajshahi, Rangpur, Bogra, Jalpaiguri, Dacca, Faridpur, Backergunge, Mymensingh, Chittagong, Patna, Gaya, Shahabad, Muzaffarpur, Saran, Monghyr, Bhagalpur, Purnea, Malda, Cuttack, and Puri. In the remaining 10 districts, viz., Midnapore, 24 Parganas, Khulna, Dinajpur, Pabna, Tippera, Noakhali, Darbhanga, Champaran, and Balasore, there was a decrease, but in most instances it was little more than nominal. The Lieutenant-Governor agrees with

the Commissioner of the Presidency Division that "expenditure on salaries is a matter in regard to which local bodies require very strict control."

59. *Drainage*.—In Murshidabad Rs. 484 were spent in clearing and repairing two drainage channels aggregating 8½ miles in length. In Noakhali the expenditure on drainage works during the year was Rs. 3,756. The deepening and improving of two important drainage channels—the Duadpur *khul* and the drain from Gangapur to the Megna river—were begun but not completed. The drains by the sides of Begumganj-Lukhipur and some other roads were improved, and the obstructions to the passage of water removed. The Rangpur drain was maintained at a cost of Rs. 2,026 during the year; and a sum of Rs. 506 was spent in cutting a channel at Kurigram by the side of the railway. The Dinajpur District Board spent Rs. 2,502 in the improvement of drains during the year. In the district of Jalpaiguri Rs. 1,585 were expended in carrying out a drainage project at Alipur civil station. This amount was received as a contribution from the Duars Improvement Fund, which is at the disposal of the Deputy Commissioner of the district. The total expenditure under the head amounted only to Rs. 10,783. There is no doubt that very much remains to be done in this direction in many parts of the province, and it is to be hoped that the Bill now before the Bengal Legislative Council will turn the attention of District Boards to the necessity of drainage schemes and will facilitate the execution of them as soon as it passes into law.

60. *General remarks*.—The Lieutenant-Governor will conclude this review by reproducing the observations recorded by Commissioners of Divisions in their reports on the working of District and Local Boards during the year.

The Commissioner of the Burdwan Division (Mr. Power) writes:—

It seems that, while individual members render great assistance to the executive, District and Local Boards, as bodies, have not yet advanced beyond the initial stage of their existence, in which they figure as potential means of educating the public into a desire for local self-government; their poverty precludes them from exercising any very deep influence on the administration. Such needful things as can be done with the funds at their command are now done with their concurrence. The same things would formerly have been done by the executive authorities acting on less formally expressed incentive: there is no room for much difference of opinion. In the Annual General Administration Report I quoted, with approval, Mr. Duke's remarks on this subject. They will bear repetition, and are reproduced here:—

"It would be unjust and ungrateful to complain of apathy in the members, for I found them on all occasions most willing to assist me, and anxious that business should be efficiently conducted, but at the same time I think there is an underlying sense that there is very little for the members to do. The Board, in fact, is so poor, its wants are so much beyond its income, that there is never anything new or popular to be done; and I think that after a certain experience of this damping fact, members come to feel that, where the income has obviously to be spent on only the most necessary and peremptory requirements, there is very little room for discussion, and most things may be left in the hands of the executive."

The Commissioner of the Presidency Division (Mr. Westmacott) remarks:—

The District Boards have on the whole worked well as deliberative bodies. The Local Boards have a restricted scope for their activity, and have not displayed much energy. I agree with the remarks made by Mr. Beames in last year's report that, if local self-government means administration of the affairs of a locality by the principal residents thereof, elected by the rate-payers and watched by them, then we can hardly be said to have got local self-government at all yet. The principal and certainly the most active members of these Boards are for the most part pleaders who are not natives of the district, and are no better able to judge of local requirements than the Magistrates and Deputy Magistrates. Until the leading residents of a place come forward to take seats on the Board, the movement can only be said to have substituted one class of government by outsiders for another. When I took charge of the division in March last, I had had nothing to do with its administration for eighteen months, and I hesitate to give a decided opinion on the working of District Boards from what I have seen in less than five months. It appears to me, however, that, comparing the enormous funds now at the disposal of the Boards with the pittance placed at the disposal of Magistrates in the old Ferry Fund days, the roads and bridges not only do not show corresponding improvement, but are worse than they used to be.

The Commissioner of the Rajshahi Division (Mr. Nolan) observes as follows:—

I am of opinion that the work of the District Boards showed signs of improvement during the year. Its quality depends greatly on the efficiency of the District Magistrate, who is the Chairman. In Pabna the system is less successful than elsewhere, because, by delegating almost all power to Local Boards, the advantage of the Chairman's direction has been lost. I think it a mistake that Subdivisional Magistrates, whose official tours enable them to

know the country, are not appointed members of the Local Boards. For the direction of primary education it seems to me that the Boards do not form an efficient agency. They are, I think, in this respect inferior to the Education Committees they superseded, the members of which were specially selected for their interest in the department.

The Commissioner of Dacca (Mr. Luttmann-Johnson) states:—

In my Annual General Administration Report I have made the following remarks:—

“Most of the members of the Dacca Board continued to take considerable interest in the questions which came before them for consideration. The Faridpur Board worked satisfactorily and smoothly. The Local Boards have no funds of their own, and are rarely allowed for expenditure more than a small percentage of the amount they contribute to the District Funds. Under these circumstances, that in Dacca members take some interest in the transaction of business is very satisfactory, while the statement that in Faridpur they are a failure can hardly cause surprise. In Backergunge the members of both District and Local Boards have taken great interest in their work, and steady progress has been the result in Sanitation, Communications, and Education. The Mymensingh District Board is far the most helpful body Mr. Earle has ever presided over. The members take the keenest interest in the Board's affairs. The Local Boards in this district carried out their vicarious duties satisfactorily.”

The Commissioner of Chittagong (Mr. Oldham) says:—

The Board have not to assess revenue, and the methods of collecting it which they follow have been fully tried and are administered by officers trained to work like this on a large scale. Free as they are from these two difficult branches of public duty, the Boards have worked judiciously and efficiently, and have been careful as well as effective disbursers of the funds which they administer.

The Commissioner of the Patna Division (Mr. Forbes) records his opinion in the following words:—

The general working of the District Boards during the year continued to be satisfactory and harmonious. I noticed in my last report the unquestionable value of the District Boards as consultative bodies, and the useful part also occasionally taken in certain executive matters by the various sub-committees. Many of the members who sit on these committees take a decided interest in their duties and transact well and conscientiously a considerable amount of public business. The Local Boards with official Chairmen are again reported to have worked better than those with non-official Chairmen.

The Commissioner of Bhagalpur (Mr. Quinn) makes the following observations:—

The work of the Boards generally throughout the Division has, I think, been carried on with a very fair degree of efficiency during the past year, though the proportion of members who take a practical interest in the administration of the funds and the execution of the works is still small. The members generally, however, deserve credit for the support which they have given to the executive. The standing committees have done good service, and individual members, notably General Murray, Vice-Chairman of the Monghyr Board, and Rai Surja Narain Singh Bahadur, Vice-Chairman of the Bhagalpur Board, have rendered efficient aid to the Chairman, and have relieved him of much of the work of general management and control. As regards Local Boards, the work is for the most part left in the hands of the Chairman, and the members as a rule give little assistance, with the exception of the European planters, who render good service in superintending the repairs of village roads. In the matter of primary education, the Local Boards take little real interest, and I have always thought it a mistake to entrust them with the administration of the grant for this purpose.

The Officiating Commissioner of Orissa (Mr. Cooke) has not recorded any opinion, but has forwarded the following extracts from the reports of the District Officers:—

Mr. Cornish, the Chairman of the Balasore District Board, writes—“The general working of the Board has been most satisfactory. The attendance is as good as can be expected, considering that all the members are busy men, and some live at a considerable distance from the sadar and sub-divisional head-quarters. The various sub-committees discharged most useful functions in preparing materials for the consideration of the general meetings. There has been no friction or obstruction of any kind. Party spirit, which rages outside, never enters our committee room. Both Local Boards worked most loyally, though, as usual, the Bhadrak Board did little more than register the decisions of the Chairman and Vice-Chairman.”

Mr. Walsh, the Chairman of the Puri District Board, makes the following remarks:—“I must note the same general want of interest on the part of the members as was noted in last year's report. The present Vice-Chairman, Babu Harish Chandra Ghose, who is a local pleader, takes considerable interest in the work and devotes as much time as he can spare to it, but this general interest is not felt by the other members, as is shown by the small percentage of attendance at the meetings which has been noticed above, and the entire absence of any undertaking or resolution brought forward by the members other than the Chairman. The duties of the Local Boards of Puri and Khurda have been almost nominal, but on account of the redistribution of work that has been already alluded to, they will have more to occupy them during the current year. There has been an absence of friction or obstruction of any

sort, and the meetings have passed off amicably. I cannot say that the greater part of the members show any interest in the power bestowed on them of local self-government."

61. The Lieutenant-Governor has nothing fresh to say regarding the results of the administration of local affairs by District Boards. The machinery has worked smoothly for the most part. Progress has been made in the extension of medical relief, though little or nothing is being done to touch, by drainage schemes, the seats of malarial fever. Sanitation is neglected: this, however, is a matter in respect of which only very slow and gradual improvement should be desired. The advancement of primary education still demands careful attention. There is scope for further improvement in the expenditure on communications. Better results might be obtained in most districts with a more judicious distribution of the available funds. In the Patna Division, for instance, the general tendency is to spend too much on communications, and to neglect education, while in the Burdwan, Presidency, Dacca, Rajshahi and Orissa Divisions, a reduction in the expenditure on higher education and a greater liberality in providing for medical requirements is undoubtedly necessary. In those districts in which the ordinary means of communication is by boat, far more benefit will accrue by improving the waterways than from heavy outlay on banked and bridged roads. The Lieutenant-Governor does not wish to imply that money is spent where it is not required, but when funds are limited, it is necessary to consider not only whether expenditure on a particular object is in itself beneficial, but also whether there is not some other work calling more urgently for execution. No great achievement has marked the past twelve months and no new policy has been inaugurated, but His Honour is gratified to think that the year has been one of that uneventful progress which leads to the goal of order and good government.

By order of the Lieutenant-Governor of Bengal,

J. A. BOURDILLON,

*Offg. Secretary to the Govt. of Bengal.*

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Serial number.	Name of Local Board.	Act under which constituted.	Area in square miles.	Population within the area.	NUMBER OF MEMBERS.								Number of meetings held.	Number of meetings attended above for want of quorum or adjourned.	AVERAGE ATTENDANCE AT EACH MEETING.		
					Ex-officio.	Nominated.	Elected.	Total.	Officials.	Non-officials.	Europeans and Eurasians.	Natives.			Officials.	Non-official.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14(a)	14(b)	15	16	17
<b>PATNA DIVISION.</b>																	
<i>concd.</i>																	
<b>Darbhanga.</b>																	
1	Darbhanga	Act III (B.C.) of 1885.	1,221	964,347	...	10	...	10	...	10	4	6	14	2	...	3.78	5.78
2	Madhubani	Ditto	1,347	997,115	2	8	...	10	3	7	4	6	9	3	1.38	3.12	5
3	Samastipur	Ditto	703	738,624	...	9	...	9	1	8	5	4	10	...	1.7	4.3	5
<b>Muzaffarpur.</b>																	
1	Muzaffarpur	Act III (B.C.) of 1885.	1,213	1,023,078	...	8	...	8	3	5	3	5	7	4	...	1.7	3.3
2	Hajipur	Ditto	700	680,000	1	8	...	9	2	7	7	2	7	3	1.7	3	3.9
3	Bitamwarhi	Ditto	1,009	916,428	1	8	...	9	2	7	3	6	6	...	1.7	3.1	4.8
<b>Saran.</b>																	
1	Chapra	Act III (B.C.) of 1885.	990	961,284	2	14	...	16	2	14	10	6	8	2	1.1	6.4	8.5
2	Siwan	Ditto	849	788,028	1	8	...	9	2	7	8	4	13	3	1.3	3.7	4.2
3	Gopalganj	Ditto	771	6,46,630	2	5	...	7	2	5	2	5	8	...	1.3	2.5	3.8
Total			20,070	13,169,937	13	187	23	224	31	192	62	171	208	50	7.8	3.45	4.18
<b>BERHAMPUR DIVISION.</b>																	
<i>concd.</i>																	
<b>Monghyr.</b>																	
1	Sadar	Act III (B.C.) of 1885.	1,890	788,741	...	19	...	12	...	12	3	9	10	2	...	6.4	6.4
2	Bogusarai	Ditto	769	618,107	...	18	...	13	1	12	6	7	14	3	1	4	8
3	Jaunpur	Ditto	1,593	844,598	1	12	...	13	2	11	...	18	12	5	1.6	3	4.6
<b>Rangpur.</b>																	
1	Sadar	Act III (B.C.) of 1885.	924	478,028	...	13	...	18	...	13	...	13	16	4	...	4.9	6.9
2	Ranka	Ditto	1,165	423,350	...	18	...	13	1	12	...	13	13	1	1	5	6
3	Madhipura	Ditto	908	412,497	...	13	...	13	1	12	2	11	12	7	1.9	2.5	3.4
4	Supaul	Ditto	1,198	644,670	...	15	...	15	2	13	1	14	16	5	1.8	2.7	4.5
<b>Purnea.</b>																	
1	Sadar	Act III (B.C.) of 1885.	2,522	846,639	...	12	...	12	...	12	5	7	13	7	...	4.8	4.8
2	Kishanganj	Ditto	1,304	642,573	...	13	...	13	1	12	...	13	10	3	1.8	4	6.8
3	Araria	Ditto	1,044	432,425	...	13	...	13	2	11	...	13	11	...	1.54	5.54	7.08
Total			13,019	8,831,618	1	129	...	130	10	120	17	113	120	37	7.85	3.99	4.84
<b>ORISSA DIVISION.</b>																	
<i>concd.</i>																	
<b>Cuttack.</b>																	
1	Cuttack	Act III (B.C.) of 1885.	1,619	984,866	3	12	...	15	...	11	3	18	16	6	1	5.5	6
2	Kondrapasa	Ditto	1,000	442,128	1	12	...	13	3	10	3	10	13	...	1.6	5.2	6.8
3	Jajpur	Ditto	1,099	513,918	1	12	...	13	3	10	...	13	12	2	1.4	4.2	5.6
<b>Balasore.</b>																	
1	Balasore	Act III (B.C.) of 1885.	1,152	520,008	1	11	...	12	1	11	2	10	11	...	1.9	4.9	5.8
2	Bhadrak	Ditto	908	447,782	...	11	...	11	2	9	1	10	13	4	1.2	4	5.3
<b>Puri.</b>																	
1	Puri	Act III (B.C.) of 1885.	1,527	584,781	1	7	...	8	3	5	...	8	2	...	1.5	3	4.5
2	Khurda	Ditto	943	331,423	...	6	...	6	2	4	1	5	4	...	1	2.2	3.2
Total			8,148	3,750,900	7	71	...	78	18	60	9	69	71	12	1.2	4.1	5.3
GRAND TOTAL			92,005	53,717,404	46	720	485	1,240	192	1,078	104	1,120	1,048	107	7.77	4.48	5.96



XIX.—EDUCATION.										XX.—MEDICAL.														
schools.	SCHOOL FEES.				Contributions.	MISCELLANEOUS.				Total.	Hospital and dispensary receipts.	Medicines sold by Civil Surgeons.	INCOME FROM		MISCELLANEOUS.				Total.					
	High schools.	Middle schools.	Primary schools.	Total.		Sale proceeds of books.	Miscellaneous.	Total.					Endowments.	Contributions.	Sanitary fees and fines.	Other receipts.	Total.							
1	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40					
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.					
...	...	1,362	...	1,362	73	...	172	173	1,007	...	...	...	240	...	...	...	...	240	...					
...	...	782	...	782	149	...	183	183	1,114	...	...	...	...	...	...	...	...	...	...					
...	...	910	...	910	31	...	121	121	1,062	...	...	9	165	...	...	15	15	...	169					
...	...	1,857	...	1,857	756	...	1,565	1,565	4,178	...	...	...	...	...	...	...	...	...	...					
...	...	1,622	...	1,622	299	...	257	257	2,148	...	...	...	...	...	...	...	...	...	...					
...	...	1,068	...	1,068	...	...	21	21	1,089	...	...	...	...	...	...	...	...	...	...					
...	...	7,601	...	7,601	1,278	...	2,319	2,319	11,108	...	...	0	405	...	...	15	15	...	429					
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...					
...	...	530	...	530	66	...	796	796	1,363	...	...	...	564	...	...	...	...	...	564					
...	...	340	...	340	108	...	346	346	794	...	...	...	41	...	...	...	...	...	41					
...	...	806	...	806	183	...	116	116	1,094	...	...	2	369	...	...	20	20	...	915					
...	...	322	...	322	91	...	91	91	521	...	...	...	...	...	...	...	...	...	...					
...	...	1,308	...	1,308	463	...	1,409	1,409	3,870	...	...	...	1,474	...	...	26	26	...	1,820					
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...					
...	...	670	...	676	799	...	596	596	2,071	...	...	...	123	...	...	...	...	...	123					
...	...	126	...	126	5	...	3	3	134	...	...	...	446	...	...	...	...	...	446					
...	...	905	...	1,279	1,592	...	192	192	3,063	...	...	...	...	...	...	...	...	...	...					
...	...	1,474	...	1,474	...	...	685	685	2,059	...	...	...	5,279	...	...	...	...	...	5,279					
...	...	124	...	124	2,760	...	233	233	3,117	...	...	...	1,152	...	...	74	74	...	1,226					
...	...	130	...	130	203	...	41	41	374	...	...	...	...	...	...	...	...	...	...					
74	...	3,435	...	3,899	5,339	...	1,650	1,650	10,818	...	...	...	7,000	...	...	74	74	...	7,074					
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...					
...	...	797	...	797	180	...	73	73	1,045	...	...	...	...	...	...	...	...	...	...					
...	...	1,150	...	1,304	...	...	520	520	1,844	...	...	...	301	...	...	...	...	...	301					
...	...	1,100	141	1,336	11,065	15	631	654	12,955	...	...	...	785	...	...	6	6	...	791					
...	...	3,047	141	3,047	11,345	15	1,240	1,255	16,997	...	...	...	1,086	...	...	0	0	...	1,092					
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...					
...	...	374	...	4,753	564	...	187	187	5,504	...	...	...	1,195	...	...	78	78	...	1,273					
...	...	815	...	815	60	...	686	686	1,461	...	...	...	667	...	...	...	...	...	663					
...	...	1,152	...	1,152	...	...	707	707	1,859	...	...	...	160	...	...	...	...	...	160					
...	...	2,341	...	0,730	624	...	1,480	1,480	8,524	...	...	2	2,022	...	...	78	78	...	2,102					
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...					
...	...	845	...	845	...	...	80	80	875	...	...	...	...	...	...	...	...	...	...					
...	...	606	...	606	114	...	488	488	1,208	...	...	...	1,618	...	...	18	18	...	1,636					
...	...	581	...	581	360	...	...	...	941	...	...	...	...	...	...	...	...	...	...					
...	...	107	...	107	...	...	10	10	177	...	...	...	...	...	...	...	...	...	...					
...	...	310	...	310	...	...	69	69	379	...	...	...	...	...	...	...	...	...	...					
...	...	751	...	751	65	...	89	89	915	...	...	...	...	...	...	...	...	...	...					
...	...	359	...	359	252	...	84	84	729	...	...	...	...	...	...	...	...	...	...					
...	...	3,049	...	3,049	791	...	784	784	5,224	...	...	...	1,618	...	...	18	18	...	1,636					
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...					
...	...	580	...	580	440	...	662	662	1,691	...	...	...	1,690	...	...	1	1	...	1,701					
...	...	510	...	510	275	...	296	296	1,081	...	...	...	373	...	...	...	...	...	373					
...	...	335	...	335	920	...	95	95	1,350	...	...	...	...	...	...	...	...	...	...					
...	...	703	...	703	...	...	60	60	863	...	...	...	...	...	...	...	...	...	...					
...	...	2,227	...	2,227	1,645	...	1,113	1,113	4,975	...	...	...	2,273	...	...	1	1	...	2,274					
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...					
...	...	408	40	448	580	...	60	60	888	...	...	...	225	...	...	2	2	...	227					
...	...	38	...	38	600	...	153	153	791	...	...	...	741	...	...	...	...	...	741					
...	...	174	...	174	...	...	2	2	176	...	...	...	...	...	...	...	...	...	...					
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...					
...	...	...	40	600	190	...	215	215	1,855	...	...	...	968	...	...	2	2	...	968					
...	...	24,918	181	30,161	23,375	15	10,210	10,225	62,761	...	...	4	16,844	...	...	233	233	...	17,003					





Statement showing the Expenditure of the District Boards in

Serial number.	NAME OF DISTRICT BOARD.	Closing balance of last year.	Total income during the year.	1.—REFUNDS AND DRAWBACKS.	15.—POST OFFICE.			18.—ADMINISTRATION.				20.—POLICE.			
				Local rate refunds.	District post establishments.	Mail cart service.	Total.	GENERAL ESTABLISHMENTS OF LOCAL FUNDS.				CATTLE-POUND CHARGES.			
								Office establishment.	Office contingencies.	Payment of establishments for offices of Accounts, Control and Audit.	Total.	Establishments.	Contingencies.	Refunds of cattle-pound collections.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<b>BURDWAN DIVISION.</b>															
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1	Burdwan ...	35,078	2,77,118	...	...	...	...	5,811	1,383	2,003	9,897	540	165	3	708
2	Bankura ...	18,307	93,381	...	...	...	...	2,415	492	773	3,670	...	11	6	17
3	Birbhum ...	20,398	95,540	...	...	...	...	3,354	843	1,084	4,781	550	100	27	527
4	Midnapore ...	40,962	2,32,217	...	...	...	...	6,449	1,300	2,864	10,413	701	125	30	916
5	Hooahly ...	43,101	1,98,084	...	...	...	...	3,067	1,920	1,588	7,194	...	4	...	4
6	Howrah ...	18,067	93,841	...	...	...	...	3,512	577	774	4,863	...	48	...	43
	Total ...	1,80,581	9,60,169	...	...	...	...	36,208	6,014	9,776	40,908	1,651	498	60	2,215
<b>PRESIDENCY DIVISION.</b>															
1	24 Pargannas ...	1,07,341	2,80,015	...	...	...	...	4,336	843	2,659	7,738	...	51	7	58
2	Khulna ...	20,664	1,10,846	...	...	...	...	3,088	800	1,314	5,351	...	43	...	43
3	Nadia ...	15,578	1,06,154	...	...	...	...	3,633	1,746	3,472	8,761	...	951	24	975
4	Jessore ...	28,456	1,47,692	...	...	...	...	6,331	2,169	2,062	9,462	52	634	15	691
5	Munshidabad ...	12,973	92,888	...	...	...	...	3,411	740	1,432	5,583	38	248	10	290
	Total ...	1,84,911	7,19,695	...	...	...	...	19,699	6,406	10,780	36,864	90	1,917	56	2,003
<b>RAJSHAHI DIVISION.</b>															
1	Dinajpur ...	44,842	2,00,970	...	...	...	...	2,037	405	2,609	5,111	1,037	43	...	1,080
2	Rajshahi ...	17,317	1,25,121	...	...	...	...	2,040	608	1,658	5,176	1,116	54	...	1,170
3	Raipur ...	29,083	2,17,261	...	...	...	...	7,294	2,650	3,110	12,468	...	...	...	...
4	Bogra ...	59,903	74,007	...	...	...	...	1,372	377	960	2,709	...	...	...	...
5	Pabna ...	22,406	1,12,581	...	...	...	...	3,065	529	1,028	5,823	1,141	125	...	1,268
6	Jalpaiguri ...	4,564	2,13,207	...	...	...	...	2,380	602	1,570	4,361	...	2	...	2
	Total ...	1,78,905	8,51,518	...	...	...	...	10,701	4,691	11,314	36,036	3,294	224	...	3,518
<b>DACCA DIVISION.</b>															
1	Dacca ...	45,146	2,89,065	...	...	...	...	5,290	1,067	1,839	6,725	226	72	...	298
2	Foydpur ...	31,396	1,58,764	...	...	...	...	3,278	900	1,275	5,613	672	570	13	1,155
3	Backergunge ...	45,842	1,79,314	...	...	...	...	4,688	944	1,973	7,580	...	...	...	...
4	Mymensingh ...	27,548	8,11,799	...	...	...	...	6,613	3,696	5,909	12,117	...	430	...	406
	Total ...	1,52,721	8,81,932	...	...	...	...	19,779	5,170	8,995	33,944	864	1,072	13	1,440
<b>CHITTAGONG DIVISION.</b>															
1	Uppeya ...	17,034	1,81,973	240	...	...	...	2,820	578	1,710	5,117	855	206	...	1,061
2	Nondiali ...	93,899	1,82,708	...	...	...	...	2,734	310	1,584	4,680	398	13	117	498
3	Chittagong ...	46,293	2,13,188	...	...	...	...	2,062	2,145	2,992	7,799	284	30	...	314
	Total ...	1,60,185	5,77,849	240	...	...	...	8,287	3,033	6,286	17,606	1,477	249	117	1,843
<b>PATNA DIVISION.</b>															
1	Patna ...	1,23,048	2,45,853	...	...	...	...	11,887	1,038	4,030	16,964	19	1,704	...	1,806
2	Gaya ...	96,778	3,51,410	...	...	...	...	10,271	1,308	3,870	16,530	12	1,188	50	1,250
3	Shahabad ...	1,24,751	2,19,322	...	...	...	...	7,400	2,833	3,342	13,261	161	13	8	172
4	Darbhanga ...	34,145	6,13,182	...	...	...	...	9,509	903	3,828	14,288	171	3	...	174
5	Muzaffarpur ...	35,008	8,45,355	...	...	...	...	6,343	878	3,036	10,205	...	18	16	33
6	Siwan ...	77,898	2,45,840	163	...	...	...	19,750	1,423	3,904	15,646	2,313	1,745	...	3,958
7	Champaran ...	26,159	1,19,706	...	...	...	...	3,102	453	2,021	5,575	6,178	2,231	18	8,427
	Total ...	5,14,845	21,92,988	163	...	...	...	68,869	8,615	21,097	91,678	8,737	6,992	91	15,820
<b>BHAGALPUR DIVISION.</b>															
1	Monohyr ...	20,413	2,21,404	...	...	...	...	4,934	1,205	2,624	8,823	55	1,040	41	1,745
2	Bhagalpur ...	4,709	3,07,144	...	...	...	...	3,813	1,384	2,588	7,785	148	94	21	263
3	Purnea ...	86,045	1,78,935	...	...	...	...	4,161	1,400	2,345	7,906	...	...	...	...
4	Malda ...	51,158	70,217	...	...	...	...	2,542	679	930	4,151	...	...	...	...
	Total ...	1,36,885	7,07,200	...	...	...	...	15,450	4,728	8,487	28,665	201	1,748	62	2,006
<b>ORISSA DIVISION.</b>															
1	Cuttack ...	42,111	1,05,708	...	...	...	...	3,082	1,174	2,367	6,623	2,547	1,378	...	4,825
2	Bilaspore ...	38,713	70,488	...	...	...	...	2,610	925	731	4,175	616	260	...	865
3	Puri ...	8,395	57,977	...	...	...	...	2,020	268	670	2,804	24	7	...	81
	Total ...	87,129	2,33,873	...	...	...	...	7,692	2,367	3,668	13,602	4,187	1,684	...	5,821
<b>GRAND TOTAL ...</b>		<b>16,93,102</b>	<b>71,93,905</b>	<b>403</b>	...	...	...	<b>1,74,617</b>	<b>49,924</b>	<b>63,442</b>	<b>2,98,983</b>	<b>20,501</b>	<b>14,329</b>	<b>405</b>	<b>35,235</b>



24.- MEDICAL--consolid			25.-SCIENTIFIC AND OTHER MINOR DEPARTMENTS.										26.-SUPERANNUATION ALLOWANCES AND PENSIONS.		30.-STATIONERY AND PRINTING.				
Isomatic sayings.	Refunds.	Total.	PUBLIC EXHIBITIONS AND FAIRS.				Veterinary charges.	Bull and stallion charges.	Botanical and other public gardens.	Provincial statistics.	Total.	Pension and Provident Fund contributions.	Gratuities.	Stationery purchased in the country.	Other stationery.	Printing.	Lithography.	Total.	
			Experimental cultivation.	Horse fairs.	Cattle fairs.	Other exhibitions or fairs.													
25	26	27	28	29	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
...	...	1,787	...	...	...	...	...	...	...	...	...	...	...	370	...	790	...	1,160	...
...	...	1,000	...	...	...	...	...	...	...	...	...	...	...	133	...	515	...	637	...
...	...	2,444	...	...	...	...	...	...	...	...	...	...	...	...	328	314	80	540	...
...	...	933	...	...	...	...	...	...	...	...	...	...	...	606	...	1,158	...	1,814	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	342	...	548	...	885	...
...	...	450	...	...	...	...	...	...	...	...	...	...	186	...	133	577	...	710	...
...	...	6,444	...	...	...	...	...	...	...	...	...	196	...	1,373	328	3,797	80	6,743	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	1,314	...	...	...	1,900	1,900	...	...	...	1,900	2,421	...	492	...	1,229	...	1,731	...
...	...	514	...	...	...	750	750	...	...	...	750	...	...	518	...	113	...	631	...
...	...	100	...	...	...	...	...	...	...	...	...	124	...	401	...	...	...	401	...
...	...	2,238	...	...	...	...	...	...	...	...	...	...	...	519	...	997	...	1,516	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	304	...	847	...	1,151	...
...	...	4,067	...	...	...	2,740	2,740	...	...	...	2,740	2,945	...	2,234	...	2,188	...	5,430	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	1,036	...	...	...	...	...	...	...	...	...	...	...	301	...	389	...	690	...
...	...	889	...	...	...	...	...	...	...	...	...	...	...	350	...	517	213	830	...
...	...	1,040	59	...	...	...	...	...	...	...	59	...	18	567	...	1,439	...	2,026	...
...	...	2,137	...	...	...	...	...	...	...	...	...	...	...	95	...	498	...	691	...
...	...	2,781	...	...	...	500	500	...	...	...	500	...	...	321	...	391	...	713	...
...	...	785	...	...	...	...	...	...	...	...	...	...	...	489	...	196	...	655	...
...	...	8,648	89	...	...	500	500	...	...	...	500	...	18	2,094	...	2,247	213	5,454	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	178	...	...	...	799	799	...	...	...	799	...	...	799	...	555	...	1,354	...
...	...	1,135	...	...	...	...	...	...	...	...	...	...	...	812	...	288	...	1,098	...
...	...	2,814	...	...	...	...	...	...	...	...	...	...	...	432	...	635	...	987	...
...	...	2,248	...	...	...	...	...	...	...	...	...	...	...	839	...	623	...	1,071	...
...	...	7,399	...	...	...	799	799	...	...	...	799	...	...	2,432	...	2,048	...	4,480	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	9,636	...	...	...	...	...	...	...	...	...	...	...	...	477	200	...	677	...
...	...	3,039	...	...	...	...	...	...	...	...	...	...	...	300	...	382	...	682	...
...	...	6,612	...	...	...	...	...	...	...	...	...	33	...	1,128	318	...	...	1,446	...
...	...	19,297	...	...	...	...	...	...	...	...	...	33	...	1,428	796	592	...	2,905	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	9,404	...	...	...	...	...	...	...	...	...	...	...	870	...	1,075	...	1,745	...
...	...	6,432	...	...	...	...	...	...	...	...	...	...	...	140	...	2,778	89	3,763	...
...	...	6,018	...	...	...	...	...	...	...	...	...	...	...	804	...	2,989	...	3,923	...
...	...	890	...	...	...	...	...	...	...	...	...	...	...	142	...	1,280	...	2,822	...
...	...	1,850	...	...	...	...	...	...	...	...	...	...	...	1,207	904	932	...	3,183	...
...	...	5,322	...	988	...	2,918	2,918	...	...	...	2,918	...	...	1,182	...	2,870	...	3,702	...
...	...	2,687	...	...	...	...	...	...	...	...	...	...	...	194	...	811	...	1,005	...
...	...	34,904	...	058	...	2,918	2,918	...	240	...	4,111	...	215	6,116	904	12,403	28	19,618	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	2,630	...	...	...	...	...	...	...	...	...	...	...	229	...	601	...	890	...
...	...	4,040	...	...	...	...	...	...	...	...	...	...	...	371	...	625	25	1,321	...
...	...	1,570	...	...	...	...	...	...	...	...	...	...	...	448	...	804	...	1,462	...
...	...	600	...	...	...	...	...	...	...	...	...	...	...	243	...	283	...	681	...
...	...	8,840	...	...	...	...	...	...	...	...	...	...	...	1,298	...	2,793	25	4,114	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	2,184	...	...	...	...	...	...	...	...	...	...	123	...	813	...	1,815	1,523	...
...	...	1,844	...	...	...	...	...	...	...	...	...	...	...	86	...	265	...	484	...
...	...	2,903	...	...	...	...	...	...	...	...	...	...	...	164	...	373	...	430	...
...	...	6,931	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	96,420	89	268	...	8,952	7,910	...	610	...	8,673	3,897	...	833	17,738	2,899	22,069	226	50,029





45.—CIVIL WORKS—concl.

IN CHARGE OF PUBLIC WORKS OFFICERS.

Original Works.				Repairs.				Establishment and contingencies appertaining to public works.	Tools and plant.	Water-supply and water-works.	Drainage works.	Total.	Total.
Civil buildings.	Communications.	Miscellaneous public improvements.	Total.	Civil buildings.	Communications.	Miscellaneous public improvements.	Total.						
73	75	74	75	76	77	78	79	80	81	82	83	84	85
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
2,577	25,675	...	29,252	6,611	1,52,862	...	1,59,473	18,261	556	4,821	...	2,12,583	2,12,468
5,548	8,163	...	13,711	877	31,107	...	31,984	9,260	317	420	...	50,184	50,408
...	8,055	...	13,903	769	30,873	...	31,642	8,466	55	630	...	54,086	54,691
...	16,670	...	16,670	...	91,238	...	91,238	18,586	365	608	...	1,24,727	1,29,101
...	10,555	...	10,555	13,547	78,589	...	92,135	17,451	2,000	749	...	1,23,998	1,29,906
8,900	11,389	800	17,489	...	8,376	...	8,376	5,138	...	...	...	80,966	82,946
15,225	79,407	800	95,022	21,794	3,93,064	...	4,14,858	75,110	3,313	7,518	...	5,95,821	6,02,597
...	...	...	...	...	...	...	...	...	...	...	...	...	...
1,764	10,344	...	12,108	50	1,80,372	...	1,80,422	17,610	401	151	...	2,10,898	2,12,031
...	24,553	...	24,553	864	32,694	...	33,558	8,976	863	254	...	67,034	68,719
...	2,911	...	2,911	...	40,360	...	40,360	13,384	59	3,000	...	59,615	59,615
...	16,16	...	16,16	7,058	61,707	...	68,765	18,248	506	5,248	...	1,09,183	1,09,201
...	8,54	19	3,566	...	47,097	...	47,097	12,350	158	...	484	63,655	63,677
2,134	56,517	19	58,670	8,308	3,63,222	...	3,70,530	70,694	1,026	8,659	484	5,10,987	5,13,326
...	...	...	...	...	...	...	...	...	...	...	...	...	...
10,468	44,192	...	54,660	2,548	55,873	139	56,012	14,463	1,034	1,832	2,503	1,57,072	1,57,072
7,318	14,090	...	21,408	3,679	34,163	...	37,842	13,708	600	161	404	74,197	74,578
11,032	54,440	...	65,472	3,225	36,014	...	39,239	14,171	1,164	35	2,632	1,37,113	1,38,920
2,138	4,706	...	6,844	1,113	25,276	...	26,389	6,081	699	82	...	43,695	43,695
6,316	12,720	281	19,317	4,062	17,607	411	23,180	8,185	637	439	...	51,758	52,307
869	67,630	7,765	75,784	7,502	32,905	...	40,407	13,216	1,150	...	...	1,50,537	1,52,085
37,658	2,01,708	8,046	2,47,412	23,629	2,05,138	550	2,29,217	74,481	5,374	2,540	5,430	6,04,472	6,09,344
...	...	...	...	...	...	...	...	...	...	...	...	...	...
36,625	35,059	...	71,684	16,912	31,682	400	38,094	10,858	62	315	...	1,29,913	1,33,868
19,132	23,007	567	42,706	3,406	24,479	225	25,000	9,337	191	6,261	...	87,098	87,098
4,413	35,295	...	39,708	4,709	28,709	1	33,479	13,684	465	467	...	87,833	88,239
12,495	1,10,065	880	1,24,360	5,212	37,572	...	42,784	21,281	453	12,679	...	2,01,757	2,05,144
73,635	2,01,347	1,436	2,76,418	30,789	1,32,412	626	1,33,038	55,180	1,201	19,955	...	5,06,631	5,23,636
...	...	...	...	...	...	...	...	...	...	...	...	...	...
8,636	25,821	...	34,457	1,382	16,638	...	18,020	11,956	177	...	...	64,510	64,510
23,292	27,709	...	51,001	3,537	45,750	...	49,287	10,872	156	...	...	1,17,932	1,18,267
3,340	12,040	...	15,380	5,906	73,064	...	78,970	20,091	479	120	...	1,16,599	1,16,599
35,177	65,570	...	1,00,747	10,025	1,38,473	...	1,48,497	43,410	792	170	3,766	2,97,981	2,99,080
...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	1,22,053	...	1,22,053	...	62,816	...	62,816	23,966	2,001	...	...	2,13,896	2,13,896
537	82,968	...	83,405	699	81,775	...	82,474	31,082	873	1,907	...	1,09,631	1,10,032
...	40,937	...	40,937	53	60,780	...	60,833	21,988	2,418	...	...	1,41,176	1,42,447
...	95,417	...	95,417	...	91,041	...	91,041	39,118	2,092	...	...	2,20,662	2,22,081
...	1,08,687	1,093	1,09,780	435	40,481	183	40,664	26,023	1,353	6,668	...	1,79,722	1,79,998
30	19,305	...	19,305	1,287	74,865	...	76,152	25,463	353	...	...	1,21,403	1,21,611
3,031	34,39	461	38,433	227	21,800	...	22,027	12,285	895	1,400	...	78,043	78,045
4,201	5,07,594	2,454	5,14,249	2,701	4,39,564	163	4,42,446	1,78,108	10,065	9,875	...	11,54,745	11,69,284
...	...	...	...	...	...	...	...	...	...	...	...	...	...
1,864	7,866	1,029	10,719	5,430	67,026	...	72,456	20,902	1,140	7,642	1,104	1,13,903	1,16,216
10,52	34,937	7,435	52,774	6,290	72,857	1,227	74,084	26,552	4,841	45,037	...	2,04,377	2,11,069
2,377	12,142	8	14,427	1,764	58,832	1,662	60,494	19,659	1,644	1,570	...	1,20,377	1,22,077
...	168	...	168	...	20,096	1,222	21,318	7,221	800	48	...	28,018	28,039
14,644	55,083	8,472	78,148	16,054	2,49,023	4,191	2,53,214	73,333	8,425	54,167	1,104	4,89,075	4,90,874
...	...	...	...	...	...	...	...	...	...	...	...	...	...
2,192	4,413	...	6,605	144	29,777	1,228	31,005	10,406	131	916	...	40,297	40,297
...	23,348	200	23,548	...	18,877	...	19,077	5,035	...	...	...	47,048	47,076
...	6,166	...	6,166	505	19,367	...	19,872	6,307	32	...	...	33,089	33,091
2,702	31,147	200	37,130	649	67,421	1,228	68,649	21,918	163	916	...	1,39,434	1,39,434
4,66,565	12,01,433	20,847	14,07,845	1,15,209	19,77,246	6,778	20,09,283	5,92,107	31,229	1,05,839	10,783	48,46,166	48,58,747

## No. III.

Bengal during the year ending the 31st March 1893.

CONTRIBUTIONS.			DEBT.			INTEREST ON DEBT.			Total expenditure.	BALANCE.			REMARKS.
To Provincial.	To other Boards.	Total.	Payments of loans.	Deposits and advances.	Total.	On account of last year.	On account of current year.	Total.		Deposits.	Actual balance.	Total.	
86	87	88	89	90	91	92	93	94	95	96	97	98	99
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
179	...	179	...	23,916	23,916	...	...	...	2,98,134	16,562	-2,440	14,062	
...	...	...	...	2,992	2,992	...	...	...	90,757	1,476	1,476	20,071	
...	...	...	...	2,322	2,322	...	...	...	86,302	4,286	2,507	29,563	
...	...	...	...	2,314	23,314	...	...	...	2,27,110	24,025	31,084	55,069	
...	...	...	...	8,930	8,930	...	...	...	1,87,104	8,015	4,267	24,182	
...	...	...	...	4,124	4,124	...	...	...	62,907	1,309	13,112	14,511	
179	...	179	...	68,663	68,663	...	...	...	3,52,313	56,603	1,31,735	1,88,398	
...	...	...	...	17,977	17,977	...	...	...	2,90,947	10,415	60,894	77,309	
...	...	...	...	11,103	11,103	...	...	...	1,18,401	6,129	9,280	16,100	
...	...	...	...	8,416	8,416	...	...	...	1,08,325	6,077	7,380	13,407	
...	...	...	...	13,434	13,434	...	...	...	1,72,212	3,756	...	3,756	
...	...	...	...	4,003	4,003	...	...	...	96,687	...	9,173	9,173	
...	...	...	...	54,342	54,342	...	...	...	7,88,652	33,027	86,777	1,10,764	
...	...	...	...	39,089	39,089	498	3,600	4,098	2,08,682	20,687	24,472	45,130	
...	...	...	...	14,557	14,557	...	...	...	1,33,006	4,730	14,005	19,344	
...	7,700	7,700	...	10,754	10,754	...	...	...	2,17,985	12,704	15,655	28,353	
...	...	...	...	7,710	7,710	...	...	...	71,145	3,454	5,271	61,725	
...	...	...	...	4,788	4,788	...	...	...	1,00,781	8,273	26,115	34,289	
...	4,000	4,000	5,000	17,047	22,047	...	650	650	1,76,311	...	41,457	41,457	
...	11,700	11,700	5,000	98,945	98,945	198	4,240	4,737	8,98,111	40,857	1,80,455	2,30,312	
...	...	...	...	21,200	21,200	...	...	...	2,97,855	8,778	60,578	69,356	
...	...	...	...	8,188	8,188	...	...	...	1,31,304	...	38,150	38,150	
...	...	...	...	13,848	13,848	...	...	...	1,62,075	10,134	62,947	63,681	
...	...	...	...	31,489	31,489	...	...	...	3,06,257	21,286	8,844	32,890	
...	...	...	...	77,725	77,725	...	...	...	8,11,181	43,208	1,60,174	2,03,472	
...	...	...	...	5,726	5,726	...	...	...	1,33,132	2,567	63,308	65,875	
...	...	...	...	13,188	13,188	...	...	...	1,69,591	12,411	96,105	1,09,016	
...	...	...	...	46,550	46,550	...	...	...	2,05,784	4,901	61,535	66,436	
...	...	...	...	65,464	65,464	...	...	...	5,95,707	19,879	2,11,148	2,31,327	
...	...	...	15,023	19,389	31,414	...	3,021	3,021	3,12,244	21,067	35,290	56,357	
...	...	...	...	30,907	30,907	...	...	...	2,81,320	19,441	1,30,411	1,40,862	
...	...	...	...	11,094	14,090	...	...	...	2,63,809	4,836	1,3,358	1,40,194	
...	...	...	...	96,227	96,227	...	...	...	6,28,050	4,884	11,677	19,261	
...	...	...	...	72,003	72,003	...	...	...	2,87,122	4,864	11,324	95,311	
...	...	...	11,270	51,475	42,444	...	...	...	2,26,222	6,459	90,454	96,904	
...	...	...	...	10,413	10,413	...	...	...	1,34,311	2,696	3,328	6,024	
...	...	...	20,304	2,85,074	8,11,978	...	3,021	3,021	20,72,210	63,948	5,01,575	5,65,523	
...	...	...	...	10,627	10,627	...	...	...	1,64,265	2,650	74,803	77,552	
...	...	...	...	83,002	83,002	...	...	...	3,33,122	10,006	2,065	12,731	
...	...	...	...	24,871	24,871	...	...	...	1,00,879	12,537	11,624	24,161	
...	...	...	...	10,926	10,926	...	...	...	64,318	5,349	31,708	37,057	
401	...	401	...	1,20,426	1,20,426	...	...	...	7,62,584	30,811	1,20,890	1,51,501	
...	...	...	...	81	34	...	...	...	1,00,019	2,022	45,778	47,800	
...	...	...	...	3,770	3,770	...	...	...	89,033	2,217	15,951	18,168	
...	...	...	...	2,514	2,514	...	...	...	58,960	1,080	5,942	7,022	
...	...	...	...	6,318	6,318	...	...	...	2,48,012	5,319	67,071	73,890	
640	11,700	12,370	31,334	7,81,517	8,12,821	408	7,200	7,708	70,33,750	3,02,642	14,00,075	17,63,217	

FORM

Statement showing the details of the works undertaken for the improvement of sanitation

IMPROVEMENT OF WATER-SUPPLY.											IMPROVEMENT OF INCLUDING VEGG	
DISTRICT BOARD.	New tanks dug.		New wells sunk.		Existing sources of supply repaired or otherwise improved.		Watchmen employed to guard sources of drinking water-supply.		Total expenditure.	Village site improvements, i.e., laying out streets, drains, &c.		
	Number of works.	Cost.	Number of works.	Cost.	Number and description of works.	Cost.	Sources and number of men employed.	Cost.		Number of villages.	Cost.	
1	2	3	4	5	6	7	8	9	10	11	12	
		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.	Rs. A. P.		Rs. A. P.	
BURDWAN DIVISION.												
Burdwan ..	...		1	500 0 0	1. Re-excavating a tank at Bernachite.	300 0 0						
			1	104 0 0	2. Re-excavating a tank at Jangraon.	200 0 0						
				604 0 0	3. Re-excavating a tank at Nawa-dih.	200 0 0						
					4. Re-excavating a tank at Mohar-pur.	300 0 0						
					5. Re-excavating a tank at Bako-ha.	200 0 0						
					6. Re-excavating a tank at Poon-ghur.	200 0 0						
					7. Re-excavating a tank at Kach-dih.	200 0 0						
					8. Re-excavating a tank at Bel-cate.	550 0 0						
					9. Re-excavating a tank at Agra-ma.	600 0 0						
					10. Re-excavating a tank at Dhut-matoh.	450 0 0						
					11. Re-excavating a tank at Moyn.	200 0 0						
					12. Re-excavating a tank at Bejra-dih.	250 0 0						
						3,050 0 0			4,264 0 0			
			1	243 0 0					243 0 0			
			8	420 0 0					420 0 0			
				663 0 0					663 0 0			
Bankura ..									630 0 0			
Birbhum ..			2	630 0 0					808 0 0			
						4	161 0 0		748 0 0			
Midnapore ..			7	737 0 0		1	200 0 0		200 0 0			
Hookhly ..												
Howrah ..												
TOTAL ..			20	2,634 0 0		18	4,750 0 0		7,393 0 0			
PRESIDENCY DIVISION.												
24 P. MANS ..			56	0 0	1 Improving a tank at Chaital.	80 0 0			151 0 0			
Wardha ..			1	46 2 6	1 Jail tank at Bagorhat.	208 0 0			254 2 6			



IMPROVEMENT OF WATER-SUPPLY.											IMPROVEMENT OF INCLUDING VILLAGES	
DISTRICT BOARD.	New tanks dug.		New wells sunk.		Existing sources of supply repaired or otherwise improved.		Watchmen employed to guard sources of drinking water-supply.		Total expenditure.	Village site improvements, i.e., laying out streets, drains, &c.		
	Number of works.	Cost.	Number of works.	Cost.	Number and description of works.	Cost.	Sources and number of men employed.	Cost.		Number of villages.	Cost.	
1	2	3	4	5	6	7	8	9	10	11	12	
RAJSHAHI DIVISION.												
Dinaipur ... ..		Rs. A. P.	5	*1,374 0 0	2 wells 2 tanks 1 tank	203 0 0 90 0 0 161 0 0			1,673 0 0 161 0 0			
Rajshahi ... ..												
Rangpur ... ..			4	35 0 0					35 0 0			
Pabna ... ..			8	434 0 0	1 tank	5 0 0			439 0 0			
Jalpaiguri ... ..			42	2,465 0 0					2,495 0 0			
Total ... ..			59	4,344 0 0	8	465 0 0			4,803 0 0			
DACCA DIVISION.												
Dacca ... ..			1	247 12 9	1 Improvement of a tank at Munshiganj.	67 2 7			314 15 4			
Faridpur ... ..	17	4,275 5 5			7	1,938 15 0			6,264 4 5			
Backergunge ... ..	1	496 8 3							496 8 3			
Mymensingh ... ..	7	520 0 0	28	614 0 0	69	1,755 0 0			2,879 0 0			
Total ... ..	25	5,291 13 8	29	851 12 9	77	3,411 1 7			9,954 12 0			
CHITTAGONG DIVISION.												
Tippera ... ..					1 Cleaning & reserved tank at Sandwip.	50 0 0			50 0 0			
Noakhali ... ..									129 0 0			
Chittagong ... ..			1	120 0 0					170 0 0			
Total ... ..			1	120 0 0	1	50 0 0						
PATNA DIVISION.												
Patna ... ..			5	1,520 1 0	4	1,038 0 5			2,558 10 5			
Gaya ... ..					1 tank 2 wells.	406 0 0			406 0 0			
Bahabad ... ..					25 tanks cleaned out and enlarged.	6,269 0 0			6,269 0 0			
Muzaffarpur ... ..					257 wells cleaned and lime put into them, and one re-excavated.	245 0 0			245 0 0			
					1 well repaired and provided with platform, &c.	54 0 0			54 0 0			
Darbhanga ... ..					1 well	40 0 0			40 0 0			
Saran ... ..												
Champaran ... ..					6(h)	1,400 0 0			1,400 0 0			
Total ... ..			6	1,520 1 0	307	9,482 9 4			10,973 10 5			



DISTRICT BOARD.	IMPROVEMENT OF WATER-SUPPLY.									IMPROVEMENT OF VILLAGE RANK VEGE	
	New tanks dug.		New wells sunk.		Existing sources of supply repaired or otherwise improved.		Watchmen employed to guard sources of drinking water-supply.		Total expenditure.	Village site improvements, i.e., laying out streets, drains, &c.	
	Number of works.	Cost.	Number of works.	Cost.	Number and description of works.	Cost.	Number of men employed.	Cost.		Number of villages.	Cost.
1	2	3	4	5	6	7	8	9	10	11	12
<b>BHAGALPUR DIVISION.</b>											
Monghyr ...	3	Rs. A. P.	18	Rs. A. P.	13 wells	Rs. A. P.		Rs.	Rs. A. P.		Rs. A. P.
Bhagalpur ...	15	1,064 0 0	2	219 0 0	Re-examination of 14 tanks as follows, —	163 0 0	.....	.....	7,512 0 0	.....	.....
		1,748 0 0			1 tank	1,050 0 0	....	....	45,937 0 0	.....	.....
		2,672 0 0			1 ..	2,526 0 0					
		1,667 0 0			1 ..	1,744 0 0					
		1,670 0 0			1 ..	1,209 0 0					
		1,058 0 0			1 ..	288 0 0					
		1,473 0 0			1 ..	331 0 0					
		3,855 0 0			1 ..	469 0 0					
		1,748 0 0			1 ..	529 0 0					
		2,841 0 0			8 tanks	706 0 0					
		3,432 0 0			12 wells	51 0 0					
		2,085 0 0									
		8,520 0 0									
		6,185 0 0				8,503 0 0					
		35,915 0 0									
Purnea ...	...	.....	...	...	21	1,570 0 0	.....	.....	1,570 0 0	.....	.....
Malda ...	...	.....	...	...	2 wells	48 0 0	.....	.....	48 0 0	.....	.....
Total ...	18	30,900 0 0	20	3,613 0 0	65	10,084 0 0	.....	.....	54,197 0 0	.....	.....
<b>ORISSA DIVISION.</b>											
Cuttack ...	3	286 0 0	24	374 0 0	3	250 0 0	.....	.....	916 0 0	.....	.....
Balasore ...	...	.....	...	.....	...	...	.....	.....	...	.....	.....
Puri ...	...	...	...	...	6 Tanks	336 0 0	...	...	886 0 0	...	...
Total ...	3	286 0 0	24	374 0 0	9	586 0 0	.....	.....	1,252 0 0	.....	.....
GRAND TOTAL ...	52	50,780 13 8	147	15,774 18 3	477	30,846 3 6	.....	.....	67,401 14 5	.....	.....



SITES &c., INCLUDING REMOVAL OF TATION.			CONSERVANCY OF TOWNS AND VILLAGES.			SANITARY ARRANGEMENTS AT FAIRS AND FESTIVALS.		OTHER OBJECTS CALCULATED TO PROMOTE THE SAFETY, HEALTH, COMFORT, AND CONVENIENCE OF RURAL POPULATION.				
Removal of prickly pear and rank vegetation.		Total expenditure.	Names of towns and villages conserved.	Scavenging establishments.			Names of places conserved.	Cost.	Particulars.	Cost.	Grand total.	REMARKS.
Number of villages.	Cost.			Number of men and of carts.	Cost.	Arrangements made for the supervision of these establishments.						
13	14	15	16	17	18	19	20	21	22	23	24	25
	Rs. A. P.	Rs. A. P.			Rs. A. P.			Rs. A. P.		Rs. A. P.	Rs. A. P.	
.....	.....	.....	.....	.....	.....	.....	.....	.....	Civil Hospital Assistants on cholera duty with medicine.	22 0 0	7,542 0 0 55,037 0 0	
.....	.....	.....	.....	.....	.....	.....	.....	.....	(1) Subsidy paid to steamer service.	1,282 0 0	2,462 0 0	
.....	.....	.....	.....	.....	.....	.....	.....	.....	(2) Clearing snags from rivers.	334 0 0	382 0 0	
.....	.....	.....	.....	.....	.....	.....	.....	.....		1,638 0 0	55,835 0 0	
.....	.....	.....	.....	.....	.....	.....	.....	.....				
.....	.....	.....	.....	.....	.....	.....	.....	170 0 0	Contribution to Jagannath Road Fund.	1,250 0 0	216 0 0 1,766 0 0	
.....	.....	.....	.....	.....	.....	.....	.....	170 0 0		1,250 0 0	2,672 0 0	
14	634 11 0	634 11 0	.....	.....	.....	.....	.....	8,065 11 8	.....	25,812 5 5	1,31,914 10 6	



MANAGED BY BOARDS.								GRANTS-IN-AID.						
22								23	24					
Schools, boys'.				Primary schools, girls'.				Grand total, primary schools.	Training and special schools.					
Lower.				Upper.	Lower.	Total.	Grand total.		Training schools for teachers.	Guru-training classes.	Industrial schools.	Other schools.	Total.	
Stipendiary.	Paid by rewards.	Mixed.	Total.											
21	25	26	27	28	29	30	31	32	33	34	35	36	37	
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
963	8,805	232	10,000	143	1,107	1,250	15,919	1,910	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	17,398	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	688	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	2,313	.....	.....	.....	550	550	
.....	.....	.....	.....	.....	.....	.....	.....	1,496	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	1,615	.....	.....	.....	.....	.....	
963	8,805	232	10,000	143	1,107	1,250	15,919	25,450	.....	.....	.....	550	550	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	816	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	1,614	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	900	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	1,722	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	4,082	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	6,976	406	7,442	38	189	227	10,837	1,691	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	11,052	.....	.....	.....	.....	.....	
486	1,002	69	2,547	.....	169	169	4,117	2,770	.....	.....	.....	750	750	
.....	.....	.....	.....	.....	.....	.....	.....	5,724	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	633	.....	129	.....	130	249	
.....	.....	.....	.....	.....	.....	.....	.....	406	.....	.....	.....	.....	.....	
486	8,968	535	9,989	38	368	386	14,964	22,365	.....	129	.....	970	969	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	978	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	3,512	.....	.....	.....	.....	.....	
202	.....	.....	202	.....	.....	.....	700	11,680	.....	.....	.....	.....	.....	
202	.....	.....	202	.....	.....	.....	700	16,209	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	3,497	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	1,098	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	944	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	5,544	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	10,820	.....	10,820	.....	506	506	33,714	17,150	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	2,335	.....	.....	.....	84	84	
1,015	1,952	.....	3,567	.....	11	11	6,734	8,769	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	1,147	.....	.....	.....	.....	.....	
597	5,402	206	6,325	.....	827	827	9,087	9,816	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	3,519	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	1,216	480	.....	.....	.....	480	
2,212	18,334	206	20,712	.....	1,344	1,344	28,555	13,952	480	.....	.....	84	564	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	2,956	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	2,179	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	2,560	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	655	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	8,331	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	208	1,841	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	395	450	118	.....	100	608	
.....	.....	.....	.....	.....	.....	.....	125	1,800	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	393	4,032	450	118	.....	100	668	
3,863	36,007	1,633	40,003	181	2,869	2,990	60,521	1,20,955	950	.....	.....	190	1,504	2,781

High schools.					Middle schools.						Primary schools, boys.									
General charges.	Prizes and rewards and library.	Charges for contingencies.	Charges for abolished schools.	Total.	English.		Vernacular.		Total.		Grand total.	Upper.				Lower.				
					For boys.	For girls.	For boys.	For girls.	For boys.	For girls.		Stipendiary.	Paid by rewards.	Mixed.	Total.	Stipendiary.	Paid by rewards.	Mixed.	Total.	
33	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
236	...	...	...	236	10,674	...	3,636	...	11,310	...	14,310	7,821	...	...	7,821	1,479	10,828	...	12,257	
336	...	...	...	336	3,127	...	2,630	...	5,757	...	5,757	...	...	...	...	...	...	...	...	
...	...	...	...	...	2,343	...	1,280	...	3,623	...	3,623	603	1,577	170	2,110	432	4,343	515	5,290	
...	...	...	...	...	6,806	...	2,941	...	8,747	...	8,747	7,754	43	...	7,797	2,686	16,910	...	19,004	
...	...	...	...	...	8,575	...	2,776	...	11,351	...	11,351	4,193	...	...	4,193	582	1,031	...	1,613	
...	...	...	...	...	3,702	...	1,080	...	4,812	...	4,812	1,842	2,234	271	2,605	678	3,980	...	4,658	
672	...	...	...	672	34,201	...	14,343	...	48,604	...	48,604	18,604	22,665	1,891	170	24,726	5,866	37,101	515	43,422
...	...	...	...	...	4,180	...	4,719	...	8,905	...	8,905	132	3,081	...	3,813	...	17,632	...	17,602	
...	...	...	...	...	4,138	...	4,736	...	8,874	...	8,874	3,901	...	...	3,901	1,165	6,521	...	7,084	
...	...	...	...	...	7,043	...	1,910	...	8,953	...	8,953	2,235	362	...	2,597	1,060	5,940	...	7,009	
...	...	...	...	...	4,781	...	5,220	...	10,001	...	10,001	5,310	...	...	5,310	848	8,081	...	8,023	
...	...	...	...	...	3,202	...	1,341	...	4,593	...	4,593	2,181	...	...	2,181	800	7,506	580	8,064	
240	670	...	...	621	1,131	...	17,926	...	41,336	...	41,336	13,746	3,983	...	17,729	3,023	45,606	580	49,878	
...	...	...	...	...	1,686	...	1,734	...	3,420	...	3,420	...	...	3,435	3,435	40	...	7,386	7,426	
...	...	...	...	...	3,214	...	1,460	...	4,674	...	4,674	...	...	...	...	...	...	...	...	
...	...	...	...	...	3,319	...	4,413	...	7,732	...	7,732	958	964	3,390	5,222	2,937	6,305	2,973	12,215	
...	...	...	...	...	1,008	...	966	...	2,064	...	2,064	...	...	...	...	...	...	...	...	
...	...	...	...	...	4,382	...	2,488	...	6,870	...	6,870	...	...	5,704	5,704	...	6,345	...	6,345	
...	...	...	...	...	728	...	1,524	...	2,251	...	2,251	430	34	806	1,309	798	924	562	2,052	
...	...	...	...	...	14,427	...	12,184	...	26,611	...	26,611	1,397	908	13,335	16,730	3,673	13,574	10,891	28,038	
...	...	...	...	...	6,484	...	4,109	...	10,593	...	10,593	2,459	2,392	...	5,251	267	9,066	...	10,233	
...	...	...	...	...	4,795	...	2,116	...	6,911	...	6,911	4,011	860	...	4,971	680	4,670	...	5,359	
...	...	...	...	...	4,391	...	1,718	...	6,109	...	6,109	82	144	2,804	3,900	353	7,446	1,197	8,070	
...	...	...	...	...	724	...	1,734	...	8,088	...	8,088	6,180	387	...	6,567	1,228	6,825	...	8,048	
...	...	...	...	...	22,804	...	9,767	...	32,571	...	32,571	13,958	3,702	2,804	21,044	2,503	24,910	1,197	32,610	
...	...	...	...	...	2,563	...	1,998	...	4,561	...	4,561	6,023	6,631	...	12,654	1,361	6,631	...	7,992	
...	...	...	...	...	1,247	...	1,263	...	2,510	...	2,510	3,678	848	...	4,526	916	7,028	...	7,974	
...	...	...	...	...	2,167	...	2,196	...	4,363	...	4,363	2,087	837	...	2,924	957	5,012	...	5,949	
...	...	...	...	...	6,667	...	5,307	...	11,974	...	11,974	11,788	8,310	...	20,114	3,244	18,671	...	21,915	
...	...	...	...	...	1,341	...	180	...	1,521	...	1,521	...	...	2,786	2,786	...	3,925	1,386	5,311	
...	...	...	...	...	729	...	...	...	729	...	729	...	...	...	...	...	...	...	...	
...	...	...	...	...	292	...	...	...	292	...	292	1,284	...	...	1,381	...	10,207	...	10,167	
...	...	...	...	...	1,179	...	180	...	1,179	...	1,179	...	...	...	...	...	...	...	...	
...	...	...	...	...	705	...	180	...	845	...	845	1,832	...	...	1,832	449	5,881	...	6,330	
...	...	...	...	...	609	...	...	...	609	...	609	...	...	1,918	1,918	...	6,743	530	7,273	
...	...	...	...	...	4,915	...	360	...	5,275	...	5,275	3,116	...	4,704	7,829	440	26,816	1,916	29,181	
132	...	...	...	132	654	...	168	...	822	...	822	1,396	...	...	1,386	2,758	3,398	...	6,156	
...	...	...	...	...	1,068	...	...	...	1,068	...	1,068	...	60	1,857	1,917	...	3,858	1,358	5,216	
...	...	...	...	...	1,125	...	156	...	1,281	...	1,281	473	167	841	1,471	814	4,837	2,143	7,794	
...	...	...	...	...	1,377	...	1,652	...	3,029	...	3,029	363	195	3,142	3,700	120	2,614	...	3,312	
132	...	...	...	132	4,224	...	2,908	...	6,230	...	6,230	2,222	413	5,810	8,474	3,692	14,707	4,100	22,508	
...	...	...	...	...	2,942	...	650	...	3,592	...	3,592	4,465	...	...	4,465	141	11,072	...	11,213	
...	...	...	...	...	2,120	...	2,017	...	4,137	...	4,137	4,460	...	...	4,460	373	6,830	...	7,203	
...	...	...	...	...	1,419	...	1,430	...	2,849	...	2,849	1,630	...	...	1,630	90	3,736	67	3,803	
...	...	...	...	...	6,481	...	4,097	...	10,578	...	10,578	10,551	...	...	10,551	580	21,688	67	22,508	
944	870	...	...	621	2,135	1,10,570	60,360	...	1,82,060	...	1,82,060	70,443	91,399	26,943	1,25,778	23,470	2,07,083	19,284	2,40,837	





B.

incurred by the District Boards in Bengal during the year 1892-93.

Primary schools, girls.					Scholarships held in--					Miscellaneous.			27	28	REMARKS.
Upper.	Lower.	Total.	Grand total, primary schools.	Grand total.	Institutions.				Total.	Buildings and furniture.	Contingent charges.	Total.	R. funds.	Grand total.	
					Primary.	Secondary.	Sp. sch.	College.							
58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
...	314	344	20,122	31,964	608	...	...	...	608	...	1,093	1,093	102	45,198	
38	210	248	7,918	11,571	728	...	...	...	728	...	117	433	530	24,656	
224	733	961	28,302	37,661	481	...	...	...	481	...	273	540	83	17,803	
201	168	372	6,178	17,591	318	458	23	...	699	...	14	3,904	3,918	55,566	
230	449	710	7,882	12,724	694	...	...	...	694	...	110	21	...	27,964	
700	1,944	2,644	70,772	120,518	2,850	702	231	...	3,783	734	7,161	7,895	102	1,94,207	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	474	474	21,880	32,794	161	194	50	...	434	265	1,397	1,662	...	42,721	
90	600	746	12,331	21,245	309	380	...	...	689	410	358	786	...	27,407	
...	1,045	1,065	10,589	20,907	...	363	...	...	363	190	1,294	1,444	...	29,661	
...	1,358	1,358	15,306	23,397	08	341	...	...	429	...	1,246	1,255	6	34,947	
...	188	188	11,323	16,892	70	381	...	...	451	735	243	978	...	21,913	
00	3,735	3,831	71,438	1,14,206	637	1,655	80	...	2,375	1,610	4,517	6,127	6	1,55,709	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	115	115	10,976	14,396	199	181	...	...	380	150	177	327	...	25,192	
...	...	...	...	4,674	156	491	...	...	647	40	735	775	...	22,203	
...	288	288	17,725	26,297	338	364	...	...	642	184	1,987	2,171	...	41,505	
...	...	...	...	2,465	716	...	...	...	716	50	247	297	...	12,004	
...	947	947	13,906	20,615	21	254	...	65	373	87	1,606	1,593	...	28,183	
...	82	82	3,503	5,753	309	...	50	...	359	190	930	1,138	...	9,850	
...	1,432	1,442	45,200	73,110	1,742	1,183	56	65	3,046	710	5,591	6,301	...	1,38,937	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
400	1,450	1,940	17,473	28,086	321	440	...	...	761	400	1,745	2,145	...	41,306	
164	1,680	1,714	12,799	18,049	...	314	...	...	544	230	3,100	3,480	...	2,615	
...	898	898	15,605	19,777	158	256	213	...	627	592	1,865	2,457	...	36,124	
81	2,617	2,696	17,313	26,391	1,105	...	183	...	1,288	...	505	505	...	41,042	
735	6,554	7,299	60,543	93,944	1,674	1,043	425	...	3,140	1,242	7,222	8,464	...	1,56,570	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
38	4,040	4,087	28,733	29,984	906	...	300	...	1,206	67	964	1,035	180	42,196	
...	235	245	12,735	15,145	472	316	120	...	908	783	1,583	2,366	...	26,905	
294	98	347	9,200	13,413	98	190	...	...	288	635	1,180	1,715	...	2,354	
332	4,377	4,709	46,728	55,692	1,471	500	480	...	2,451	1,385	4,151	5,516	180	90,435	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	212	212	6,309	9,944	1,116	365	...	...	1,116	...	1,316	1,316	...	25,393	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	280	280	11,897	12,919	141	223	...	...	1,078	...	612	612	...	15,439	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	980	980	9,161	10,105	275	528	28	...	831	25	404	429	...	17,316	
...	24	24	9,215	19,346	213	360	...	...	827	250	1,200	1,640	...	29,368	
...	1,621	1,521	38,627	41,361	2,006	2,076	53	...	5,128	328	5,608	5,936	...	1,34,710	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	2,223	2,223	9,765	10,719	159	446	...	...	650	...	203	203	...	19,060	
...	231	242	2,366	8,135	129	174	...	...	302	...	1,340	1,340	...	18,017	
...	26	25	9,249	10,571	173	223	...	...	396	...	260	260	...	19,724	
60	500	563	4,611	10,679	155	214	47	...	416	...	227	227	...	14,137	
60	2,980	3,049	34,031	40,493	600	1,067	47	...	1,713	...	2,045	2,045	...	71,847	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
48	1,130	1,176	16,850	20,443	505	820	124	...	1,215	301	248	544	...	33,537	
...	867	867	12,620	17,382	130	199	46	...	381	15	1,273	1,288	...	27,662	
60	412	472	5,477	8,826	56	627	...	...	683	183	913	1,096	...	16,406	
108	2,100	2,517	35,353	40,589	767	1,252	170	...	2,179	430	2,429	2,859	...	78,204	
1031	24,961	26,992	4,02,097	5,00,182	12,745	9,534	1,546	65	23,890	6,488	38,701	45,192	288	10,20,818	

**APPOINTMENT OF A COMMITTEE TO CONSIDER THE QUESTIONS  
OF RECRUITMENT, TRAINING, POSITION, PAY AND PROSPECTS  
OF CIVIL HOSPITAL ASSISTANTS IN BENGAL.**

MUNICIPAL DEPARTMENT—MEDICAL.

*Calcutta, the 19th December 1893.*

RESOLUTION—No. 4046 Med.

Read the following correspondence—

- Letter to the Government of India, Home Department, No. 314T.—M., dated 23rd October 1891.
- Letter from the Government of India, Home Department, No. 191, dated 26th March 1892.
- Letter to the Government of India, Home Department, No. 619T.—M., dated 20th September 1892.
- Letter from the Government of India, No. 5—229 Med., of the 10th May 1893.
- Letter to the Government of India, Home Department, No. 322T.—M., of the 30th June 1893.

Read also—

- Letters from the Inspector-General of Civil Hospitals, Nos. 71D., dated 22nd May 1893, and 110D., dated 6th June 1893.

Several questions of importance referring to the recruitment, training, position, pay and prospects of the Subordinate Medical Service in Bengal have lately been under the consideration of Government, and in the Lieutenant-Governor's opinion the time has come for a decision to be passed upon them.

2. In the first place, considerable difficulties have been experienced in making adequate arrangements for medico-legal work at the head-quarters of subdivisions. It was considered by this Government that the difficulty might be met by the creation of a grade of Sub-Assistant Surgeons, composed of officers possessing higher professional qualifications than Civil Hospital Assistants, while inferior in this respect to Assistant Surgeons. This proposal did not, however, commend itself to the Supreme Government, who have suggested the formation of a senior grade of Civil Hospital Assistants, to be filled by the best qualified of the men already in the service; but it has been represented to the Lieutenant-Governor that the chief need of the Civil Hospital Assistant class in Bengal is not so much the formation of a higher grade as the improvement of the pay and prospects of the lower grades, in order to attract better material into the service, and to enable Government to insist on higher qualifications in the candidates for employment as Civil Hospital Assistants. In this connection it has been stated that Government, in spite of its liberality in the matter of vernacular medical education, does not succeed in enlisting the best of the students in its service when they have passed out of the schools. In the second place, it has been urged that inequalities exist in the conditions of the vernacular medical schools in these provinces at Calcutta, Patna, Dacca, and Cuttack as regards not only the quality of the education afforded, but also the cost, the equipment, and the establishment in these institutions. Thirdly, it seems doubtful whether efficient arrangements are made at all the schools for the attendance of female students, so as to provide for their separation from the male students when coming to or leaving the schools, and when receiving instruction in the lecture rooms and dissecting halls.

3. All these are questions which demand the careful attention of the

1. Surgeon-Colonel R. Harvey, Inspector-General of Civil Hospitals, President.

2. Sir A. W. Croft, M.B., Director of Public Instruction.

3. Surgeon-Major G. Bonafant, Principal of the Medical College, Calcutta.

most experienced officers available, and the Lieutenant-Governor has decided to appoint for this purpose a Committee consisting of the officers named in the margin, upon whose mature judgment and intimate acquaintance with the requirements of Bengal he can confidently rely.



4. It will be the duty of the Committee to consider in the first place the present position of the Civil Hospital Assistant class, and to report whether the conditions under which they serve are such as to attract a sufficiently good type of students and to keep them contented: if reform is found to be advisable, they will state what direction it should take. They should consider whether better pay and improved prospects should not be made contingent upon the introduction of a higher standard of attainments, and these enquiries will lead the Committee to the second part of their labours, viz. an examination of the existing system of vernacular medical education. In the course of this investigation special attention should be given to the condition and the requirements of the different schools in the province, including the proposal to abolish that at Cuttack, and the possibility of introducing some approach to equality in the cost of each, and some uniformity in the equipment and the teaching staff. Connected with this point is the suggestion that some change should be effected in the duties or the emoluments of the Superintendent of the Campbell Medical School, Calcutta, who, it has been said, at present holds too many appointments to be able to devote adequate attention to all of them. Enquiry should be made into the conditions under which students are admitted into the schools, the extent to which, they are assisted by public funds during the period of tuition, the extent to which, after obtaining their certificates, they enter Government service, and the reasons which militate against their entering it, including among them the comparative attractions of other fields of employment open to them. The opportunity should also be taken of considering whether the Inspector-General of Civil Hospitals should not be associated to some extent with the Director of Public Instruction in the superintendence of medical education both in the college and the schools. Lastly, the Committee should draw up detailed recommendations for the training of female medical students, who may possibly at no distant date form an important element in the student class. Some materials for a conclusion on each of these questions will be found in the papers quoted above, but the Committee are empowered to make such further enquiries as they may think proper either personally or by letter in Calcutta or elsewhere. Finally, the Lieutenant-Governor hopes that they will commence their labours as soon as possible, and submit their report in time to allow him to give it full consideration and to introduce any reforms that may be required from the commencement of the next financial year.

ORDER.—Ordered that a copy of the Resolution be forwarded to the Inspector-General of Civil Hospitals, to the Director of Public Instruction, and to the Principal of the Medical College, for information.

By order of the Lieutenant-Governor of Bengal,

J. A. BOURDILLON,

*Offg. Secretary to the Govt. of Bengal.*

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 16th December, 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL.</b>			
BURDWAN DIV.	1 Burdwan Dec. 16, '93	Nil	Weather—seasonable. Harvesting of <i>aman</i> going on. <i>Rabi</i> coming on well. Fodder and water sufficient. Prices of common rice :— Srs. Burdwan ... 12 to 15½ Kulna ... 10 to 15 Katwa ... 16 Kanganj ... 16 } per rupee.
	Kulna ...	Nil	
	Katwa ...	Nil	
	Kanganj ...	Nil	
	2 Birbhum „ 16, '93	Nil	Weather—seasonable. Harvesting of winter rice nearly over; outturn excellent. <i>Rabi</i> crops doing well. Price of common rice 15 to 20 seers per rupee.
	Rampur Hât ...	Nil	
	3 Bankura „ 16, '93	Nil	Weather—seasonably cold. Harvesting of <i>aman</i> still continues. <i>Rabi</i> crops doing well. Fodder and water sufficient. Common rice (new) selling at— Srs. Sadar ... 18½ Visnampur ... 17½ } per rupee.
	4 Midnapore „ 16, '93	Nil	Weather—beginning to get cold. Winter rice is being reaped and threshed. <i>Rabi</i> is being sown in parts. Prospects continue good. Fodder and water abundant. Prices of common rice :— Srs. Sadar ... 16 Conlai ... 19 Ghatol ... 15 to 16 } per rupee.
	5 Hooghly „ 16, '93	Nil	Weather—seasonable. <i>Aman</i> is being harvested; outturn quite satisfactory. <i>Rabi</i> sowings in progress. No cattle-disease. Fodder and water-supply sufficient. Prices of common rice :— Srs. Sadar ... 11 to 12 Serampore ... 10 to 14 Jahanabad ... 11 to 14 } per rupee.
	Serampore ...	Nil	
	Jahanabad ...	Nil	
	6 Howrah „ 16, '93	Nil	Weather—seasonable. Harvesting of winter rice continues. Sugarcane and spring crops doing well. Condition of cattle good. Fodder and water-supply sufficient. Price of rice 10 to 13 seers per rupee according to locality.
	Ulubaria ...	Nil	
PRESIDENCY DIV.	7 24-Parganas „ 16, '93	Nil	Weather—seasonable. Harvesting of <i>aman</i> continues. Sowing of <i>rabi</i> nearly over. No cattle-disease reported. Supply of fodder and water sufficient. Rice sells at— Srs. C. Sadar ... 10 to 13 8 Barasat ... 11 8 Basirhat ... 10 10½ Diamond Harbour ... 13 8 } per rupee.
	8 Nadia „ 16, '93	Nil	Weather—cool. Harvesting of <i>aman</i> going on. Prospects of <i>rabi</i> crops good. Price of common rice has slightly fallen. Fodder and water sufficient.
	Kushtia ...	Nil	
	Meherpur ...	Nil	
	Chuadanga ...	Nil	
	Ranaghat ...	Nil	
	9 Murshidabad „ 16, '93	Nil	Weather—getting cold. Sowing of <i>rabi</i> crops finished. Harvesting of <i>aman</i> paddy continues. Fodder and water sufficient for cattle. Common rice sells at 13 seers per rupee.
	10 Jessore „ 16, '93	Nil	Weather—seasonable. <i>Aman</i> is being harvested; outturn moderate. Winter crops doing well. Condition of cattle, fodder and water-supply good. Prices of common rice :— Srs. C. Jessore ... 13 0 Jhenida ... 10 2 Magura ... 11 4 Narail ... 11 7 Bangaon ... 13 5 } per rupee.
	Jhenida ...	Nil	
	Magura ...	Nil	
	Narail ...	Nil	
	Bangaon ...	Nil	
	11 Khulna „ 16, '93	Nil	Weather—seasonable. <i>Aman</i> is being cut everywhere with results varying from 14 to 20 annas. Price of common rice about 12 seers per rupee. Fodder and water sufficient.
	Bagerhat ...	Nil	
	Satkhira ...	Nil	

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL—concl'd.			
RAJSHAHI DIVN.	12 Rajshahi Nator Nauagaon	Dec. 16, '93 ... ... Nil Nil Nil	Weather—seasonable. Prospects of standing crops good everywhere except in Boraigiam thana, where the outturn up to date is reported to be 6 annas only. There is a sufficiency of fodder and water-supply. No cattle-disease. Price of rice stationary.
	13 Dinapur Thakurgaon	„ 16, '93 ... Nil Nil	Weather—cool. Winter rice is being harvested. Paddy crops are coming out and doing well. Prospects all good. Prices gradually falling.
	14 Jalpaiguri	„ 16, '93 Nil	Weather—cool and bright. Harvesting of <i>kaimanti</i> paddy continues; outturn expected to be 18 annas. Common rice sells at 12 seers per rupee. No cattle-disease reported. Fodder and water-supply ample.
	15 Darjeeling Siliguri	„ 16, '93 0.02 Nil	Weather—bright and cool. There was a slight snowfall on the 15th instant. In the hills:— <i>Aghani dhun, marua, kalai</i> , are being harvested. <i>Phaphur</i> and potatoes ripening. Wheat, barley and <i>torre</i> progressing favourably. In the Terai:—Winter rice being harvested. Prospects of other crops good. Prices of coarse rice:— <div style="text-align: right;">Srs.</div> <div style="text-align: right;">Hills ... 8 to 11 } per rupee.</div> <div style="text-align: right;">Terai ... 12 to 14 }</div>
	16 Rangpur Gaibanda Korigaon Nilphamari	„ 16, '93 Nil Nil Nil Nil	Weather—fine and cool. <i>Aman</i> is being harvested; outturn estimated to be 18 annas. <i>Rabi</i> crop doing well; prospects continue good. Price of rice stationary.
	17 Bogra	„ 16, '93 Nil	Weather—fine and cool. <i>Aman</i> is now mostly cut; the outturn for the whole district is about 18 annas. Prospects of winter crops good. Fodder and water sufficient.
	18 Pabna	„ 16, '93 Nil	Weather—fine and cool. <i>Aman</i> paddy is being harvested. Price of common rice in the Sirajganj subdivision Rs. 3-4 per maund and 11 seers per rupee in the Sadar subdivision. Fodder and water-supply sufficient.
DACCA DIVN.	19 Dacca	„ 16, '93 Nil	Weather—seasonable. Harvesting of <i>aman</i> paddy going on. Prospects fair. Mustard, <i>mung</i> , and <i>kalai</i> doing well. Common rice selling from 8 to 11 seers per rupee. Fodder available. No cattle-disease.
	20 Mymensingh	„ 16, '93 Nil	Weather—seasonable. Prospects of standing crops good. Harvesting of <i>aman</i> paddy going on. Common rice selling from 8 to 12 seers per rupee. Condition of cattle good. Supply of fodder sufficient except in some places in the Kishorganj subdivision.
	21 Faridpur Goalundo Madaripur	„ 16, '93 Nil Nil Nil	Weather—seasonable. <i>Aman</i> harvest nearly completed in Goalundo and Sadar, but still continues in Madaripur. <i>Maskalai</i> and <i>mung</i> being gathered in the north. Cultivation of other <i>rabi</i> crops still going on. Common rice sells from 11 seers per rupee at Madaripur to 13 seers at Goalundo. No cattle-disease and no want of fodder.
	22 B. ckerungunge	„ 16, '93 Nil	Weather—seasonable. State and prospects of crops good. Common new rice sells from 11 to 13 seers per rupee. Fodder and water sufficient.
CHITTAGONG DIVN.	23 Chittagong	„ 16, '93 Nil	Weather—seasonable, though occasionally cloudy. Reaping of early paddy nearly over. <i>Aman</i> ripening and is being harvested in places; fair outturn expected. Sowing and transplantation of winter crops continue. Prices steady. Fodder and water sufficient.
	24 Noakhali	„ 16, '93 Nil	Weather—seasonable. Harvesting of <i>aman</i> continues. <i>Rabi</i> crops have been damaged by insects in some places in the district. Condition of cattle good. Water and fodder sufficient. Prices of rice:— <div style="text-align: right;">Srs.</div> <div style="text-align: right;">Noakhali ... 12 } per rupee.</div> <div style="text-align: right;">Fenny ... 14 }</div>
	25 Tippera	„ 16, '93 Nil	Weather—seasonable. <i>Aman</i> is still being harvested; probable outturn has been stated in previous reports as 10 annas.
	26 Chittagong Hill Tracts.	„ 15, '93 Nil	Weather—seasonable. Late plough-paddy being reaped in some places. Condition of cattle good. Prices of common rice:— <div style="text-align: right;">Srs.</div> <div style="text-align: right;">Rangamati ... 9 1/2 } per rupee.</div> <div style="text-align: right;">Manicksury ... 12 }</div> <div style="text-align: right;">Banderban ... 11 }</div>



No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.															
BIHAR—conold.																		
BHAGALPUR DIVN.—conold.	87 Malda Dec. 16, '93	Nil	Weather—seasonable. Harvesting of winter paddy going on. <i>Kalai</i> coming into maturity. Prospects of <i>rabi</i> crops continue good. Ordinary rice sells from 11 to 23 seers 10 chitaks per rupee. Fodder and water sufficient.															
	88 Sonthal Parganas .. 16, '93	Nil	Weather—cool and dry. Harvesting of paddy continues. Standing crops doing well. <i>Rabi</i> crops being sown in parts. Fodder and water sufficient. Price of new rice (common) 15 to 23 seers per rupee.															
	Deoghur ...	Nil																
	Godda ...	Nil																
	Jamtara ...	Nil																
	Pakur ...	Nil																
Rajmahal ..	Nil																	
ORISSA																		
ORISSA DIVN.	39 Cuttack .. 16, '93	Nil	Weather—seasonable. <i>Laghu</i> and <i>guru sarad</i> being harvested. <i>Mung</i> doing well and bearing pods. Prices of common rice :— <table><tr><td></td><td>Srs. c</td><td>Srs. c.</td></tr><tr><td>Sadar</td><td>...</td><td>10 8 to 17 0</td></tr><tr><td>Jaipur</td><td>...</td><td>13 2 to 18 6</td></tr><tr><td>Kendrapara</td><td>...</td><td>13 0 to 21 0</td></tr><tr><td>Bunki</td><td>...</td><td>21 0</td></tr></table> } per rupee.		Srs. c	Srs. c.	Sadar	...	10 8 to 17 0	Jaipur	...	13 2 to 18 6	Kendrapara	...	13 0 to 21 0	Bunki	...	21 0
		Srs. c	Srs. c.															
	Sadar	...	10 8 to 17 0															
	Jaipur	...	13 2 to 18 6															
Kendrapara	...	13 0 to 21 0																
Bunki	...	21 0																
40 Puri .. 14, '93	Nil	Weather—seasonable. <i>Laghu</i> is being reaped. <i>Sarad</i> is ripening and in places being cut. Sugarcane is being crushed. Miscellaneous crops doing well. Cattle-disease reported. Prices of common rice :— <table><tr><td></td><td>Srs. c.</td><td>Srs. c.</td></tr><tr><td>Sadar</td><td>...</td><td>15 12 to 23 10</td></tr><tr><td>Khurda</td><td>...</td><td>14 7 to 17 1</td></tr></table> } per rupee.		Srs. c.	Srs. c.	Sadar	...	15 12 to 23 10	Khurda	...	14 7 to 17 1							
	Srs. c.		Srs. c.															
Sadar	...	15 12 to 23 10																
Khurda	...	14 7 to 17 1																
Khurda ...	Nil																	
41 Balasore .. 16, '93	Nil	Weather—seasonable. The outturn of winter rice is estimated at 15 annas in the Sadar and 12 annas in the Bhadrak subdivision. <i>Birhi</i> and <i>mung</i> 15 annas in Sadar and 14 annas in Bhadrak. Mustard 15 annas in Sadar and 8 annas in Bhadrak.																
CHOTA NAGPUR.																		
South-West Frontier Agency.																		
CHOTA NAGPUR DIVN.	42 Hazaribagh Dec. 16, '93	Nil	Weather—cold. Paddy nearly harvested. <i>Kurthi</i> and sugarcane being harvested. Prospects excellent. Common rice 15 to 20 seers per rupee. Poppy has germinated satisfactorily all round; irrigation and weeding progressing.															
	Guidi ..	Nil																
	43 Lohardaga .. 16, '93	Nil	Weather—cold. Harvesting of winter rice nearly finished. Common rice selling at 18 seers per rupee. Fodder and water sufficient.															
	44 Palamau .. 15, '93	Nil	Weather—cold and clear. Prospects of crops excellent. <i>Rabi</i> sowings are being pushed vigorously. Harvesting of paddy nearly finished. Cutting of sugarcane in hand. Cattle-disease in parts. Prices stationary. Fodder sufficient.															
	45 Singhbhum .. 16, '93	Nil	Weather—clear and very cold. Winter rice is being harvested; a full 16-anna crop expected. A slight outbreak of cattle-disease reported from Asanboui outpost, Dulbhum pargana.															
	46 Manbhum .. 16, '93	Nil	Weather—bright and cold. Prospects very good. Harvesting of rice crop in full swing. Rice selling from 15 to 20 seers per rupee. Fodder and water very sufficient.															
Golindpur ...	Nil																	

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 19th December, 1893.

C. E. BUCKLAND,  
Secy. to the Govt. of Bengal.



WOOD.			SALT.			WHOLESALE PRICES PER MAUND OF 40 SEERS.			DISTRICTS.	Number.
return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.			

**BENGAL.**

Ch. S.	Ch. S.	S. Ch.	S. Ch.	No. A. P.	No. A. P.	No. A. P.			
0 100	0 10	0	10 0	12 0	3 11	9 3 11	9 3 5	4	Burdwan.
0 200	0 11	0	11 0	10 12	3 10	6 3 10	6 3 12	6	Birbhum.
0 320	0 10	0	10 2	11 0	3 14	0 3 14	0 3 10	0	Bankura.
0 240	0 10	12	10 12	11 7	3 11	6 3 11	6 3 8	0	Midnapore.
0 160	0 12	12	12 12	11 12	3 4	0 3 4	0 3 6	0	Hooghly.
0 106	0 10	0	10 0	10 10	3 12	0 3 12	0 3 8	0	Howrah.
0 100	0 10	8	10 8	11 0	3 9	6 3 10	0 3 4	6	24-Parganas.
0 85	0 10	13	10 13	9 8	3 11	0 3 11	0 3 4	0	Calcutta.
0 120	0 9	12	9 0	10 0	3 14	0 4 0	0 3 8	0	Nadia.
0 200	0 10	8	10 8	10 8	3 8	0 3 8	0 3 7	0	Murshidabad.
0 120	0 10	0	9 2	9 11	4 0	0 4 2	0 3 10	0	Jessore.
0 160	0 10	0	9 0	10 0	4 0	0 4 0	0 4 0	0	Khulna.
0 240	0 9	0	9 9	9 9	4 0	0 3 10	8 3 10	8	Rajshahi.
0 160	0 10	0	9 0	9 4	4 0	0 4 4	0 3 12	0	Dinajpur.
0 200	0 9	0	8 0	10 0	4 4	0 4 8	0 3 12	0	Jalpaiguri.
0 120	0 8	0	8 0	8 0	4 10	0 4 10	0 4 12	0	Darjeeling.
0 80	0 9	0	7 0	9 12	4 12	0 5 8	0 4 4	0	Rangpur.
0 90	0 8	1	8 10	9 12	4 6	8 4 5	3 3 12	0	Bogra.
0 260	0 9	12	9 12	9 12	3 15	0 4 0	0 3 10	0	Pabna.
0 120	0 8	0	8 0	10 0	4 8	0 4 8	0 3 10	0	Dacca.
0 120	0 10	0	10 0	10 0	4 0	0 4 0	0 3 15	0	Mymensingh.
...	8	0	9 4	10 0	4 7	0 4 6	0 3 14	0	Faridpur.
0 85	0 9	0	9 0	10 0	4 0	0 4 0	0 3 10	0	Backergunge.

77000.

rupees are :—Gaibanda 10 seers, Kurigaon 7 seers, and Nilphamari 9 seers.

Q In the mufassal marts the retail prices of salt per rupee are :—Madanganj not reported, Manikganj 9 seers, Mirkadim Hât 9 seers 8 chitaks, and Munshirhat 9 seers 6 chitaks.

R In the subdivisions the retail prices of salt per rupee are :—Jamalpur 8 seers, Kishorganj 8 seers, Netrokona 8 seers, 10 chitaks, and Kargamari 10 seers.

8 In the subdivisions the retail prices of salt per rupee are :—Goalundo 10 seers and Madaripur 9½ seers.

T In the subdivisions the retail prices of salt per rupee are :—Pirojpur 8 seers, Patuakhali 9 seers, and Bhola 8 seers.

## PRICES-CURRENT (retail) of Food-grains, Firew.

Number.	DISTRICTS.	WHEAT.			BARLEY.			RICE, BEST			KANGNI OR KAKUN, ITALIAN MILLET. (Setaria italica.)			GRAM, CHANA, CHHOLA, KADALAY OR SUNAGA. (Cicer arisctinum.)		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
BENGAL—continued.																
CHITTAGONE DIVISION.	23 Chittagong ...	11 0	11 0	9 4	...	...	...	8 14	8 1	...	...	...	11 0	11 0	10 8	...
	24 Noakhali (Kali-tara hat).	...	...	...	...	...	...	8 0	8	...	...	...	12 0	12 0	8 0	...
	25 Tippera ...	10 0	9 12	10 0	...	...	...	9 0	8	...	...	...	11 4	11 4	8 8	...
	26 Chittagong Hill Tracts.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
BIHAR.																
PATNA DIVISION.	27 Patna ...	18 0	18 0	15 0	24 0	24 0	21 8	11 0	11	20 0	20 0	23 0	30 0	30 0	20 0	...
	28 Gaya ...	15 0	15 0	12 8	20 0	19 8	18 0	10 8	9 1	15 4	15 4	17 0	19 0	19 0	16 8	...
	29 Shahabad ...	...	13 0	15 0	...	21 0	16 0	...	9	...	...	...	21 0	21 0	15 0	...
	30 Saran ...	15 0	14 0	13 12	18 12	18 8	20 0	12 0	12	18 0	18 0	16 0	24 0	23 14	19 0	...
	31 Champaran ...	13 4	13 0	11 0	...	...	...	8 4	8	...	...	...	22 8	24 0	16 4	...
	32 Muzaffarpur ...	13 8	13 0	12 0	18 0	20 0	18 0	8 0	8	...	...	...	21 0	20 0	15 0	...
	33 Darbhanga ...	14 13	14 4	13 3	17 9	16 8	11 8	10 0	13	13 3	...	13 3	24 3	24 0	17 8	...
BHAGALPUR DIVISION.	34 Monghyr ...	16 0	16 4	12 0	19 0	18 0	14 0	12 8	10	9 0	15 0	14 0	25 0	24 0	16 0	...
	35 Bhagalpur ...	16 6	16 6	13 14	20 3	20 3	12 10	10 11	10	...	...	...	20 3	20 3	15 2	...
	36 Purnea (Kusba) ...	16 0	18 0	10 0	...	...	...	10 0	10	...	...	...	20 0	20 0	13 0	...
	37 Malda (English Bazar).	17 0	16 0	13 0	...	...	...	10 0	10	13 0	13 0	13 0	16 0	16 0	13 0	...
	38 Sonthal Parganas.	12 8	12 8	11 8	...	...	...	11 8	11	...	...	...	15 0	15 0	13 8	...
ORISSA.																
ORISSA DIVISION.	39 Cuttack ...	13 2	13 2	11 13	...	...	...	10 8	10	...	...	...	19 11	19 1	19 1	...
	40 Puri ...	10 8	10 8	...	...	...	...	8 0	8	...	...	...	18 6	18 6	...	...
	41 Balasore ...	14 0	14 0	11 0	10 0	10 0	10 0	11 0	11	...	...	...	13 0	13 0	12 0	...
CHOTA NAGPUR.																
CHOTA NAGPUR DIVISION.	42 Hazaribagh ...	12 0	12 0	12 0	16 0	16 0	11 0	8 0	8	...	...	...	16 0	16 0	13 8	...
	43 Lohardaga ...	11 0	11 0	12 0	17 0	15 0	9 0	13 0	13	...	...	...	14 0	13 0	11 0	...
	44 Palamau ...	14 0	12 6	11 4	23 10	...	...	15 3	10	...	...	...	20 4	16 14	11 13	...
	45 Singhbhum ...	12 0	12 0	12 0	...	...	...	12 0	12	...	...	...	12 0	12 0	12 0	...
	46 Manbhum ...	13 4	13 4	11 8	12 0	16 0	...	12 0	10	...	...	...	16 0	16 0	14 0	...

\* Present return not received.

- U At Cox's Bazar the retail price of salt is 8 seers per rupee.  
V At Fenny Hat the retail price of salt is 6½ seers per rupee.  
W In the Ibrahimnagar and Chandpur subdivisions the retail price of salt is 8 seer  
X In the subdivisions the retail prices of salt per rupee are :—Barh 10½ seers, Bilu  
Y In the subdivisions the retail prices of salt per rupee are :—Nawada 8 seers, Jan  
Z In the subdivisions the retail prices of salt per rupee are :—Suwan 10 seers 6 chits  
A At Bettiah the retail price of salt is 9½ seers per rupee.

In the subdivisions of salt per rupee are :—Hajipur 10½ seers and



## Station Bazars of the Districts of Bengal on the 15th December, 1893—(concluded).

												WHOLESALE PRICES PER MAUND OF 40 SEERS.				DISTRICTS.	Number.
INDIAN-CORN OR MAIZE. (Zea Mays.)			ARHAR OR THUR, CADJAN PEA. (Cajanus indicus.)			FIREWOOD.			SALT.			SALT.					
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.			
S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
...	...	...	...	...	...	80 0	80 0	110 0	10 0	10 0	10 0	4 0 0	4 0 0	3 9 0	Chittagong.	23	
...	...	...	...	...	...	...	...	...	8 0	8 0	9 0	4 12 0	4 10 0	4 0 0	Noakhali. (Kalitara hát).	24	
...	...	...	7 0	6 12	8 0	...	...	...	9 0	8 0	10 0	4 8 0	5 0 0	4 0 0	Tippera.	25	
No. in 300	cohs. 300	...	...	...	...	240 0	240 0	320 0	8 0	8 0	3 0	5 0 0	4 12 0	4 8 0	Chittagong Hill Tracts.	26	
BENGAL—continued.																	
27 0	27 0	25 0	27 0	27 0	20 8	130 0	130 0	130 0	11 0	11 8	3 10 0	3 10 0	3 8 0	Patna.	27		
20 8	19 0	23 0	20 0	19 8	19 0	120 0	120 0	200 0	10 0	9 12	10 0	4 0 0	4 0 0	3 13 0	Gaya.	28	
...	21 0	22 0	...	20 0	16 0	160 0	160 0	160 0	...	10 0	11 0	...	4 0 0	3 10 0	Shahabad.	29	
23 8	23 8	23 4	22 8	23 0	18 0	200 0	200 0	200 0	10 0	9 12	10 8	4 0 0	4 0 0	3 11 8	Saran.	30	
22 8	22 8	26 8	22 8	22 8	16 4	180 0	180 0	160 0	10 8	10 4	10 8	3 12 0	3 13 0	3 13 0	Champanan.	31	
21 0	20 0	25 0	21 0	20 0	17 0	160 0	160 0	160 0	11 0	11 0	11 0	3 10 0	3 10 0	3 10 0	Muzaffarpur.	32	
24 3	24 0	27 8	23 0	23 0	17 9	176 0	176 0	176 0	11 0	11 0	10 6	3 10 0	3 10 0	3 11 0	Darbhanga.	33	
22 0	21 0	23 0	21 0	21 0	15 0	120 0	126 0	160 0	9 8	10 0	10 8	4 2 0	3 13 0	3 7 0	Monghyr.	34	
25 0	26 8	27 14	20 3	20 3	16 6	151 8	151 8	164 0	10 1	10 0	10 11	3 15 0	4 0 0	3 12 0	Bhagalpur	35	
...	...	...	16 0	20 0	16 0	320 0	320 0	320 0	9 0	9 0	10 0	4 0 0	4 0 0	3 10 2	Purnea (Kasba).	36	
...	20 0	26 0	13 0	12 0	11 0	160 0	160 0	160 0	9 0	9 0	10 0	...	...	3 12 0	Malda (English Bazar).	37	
21 0	20 0	24 0	22 8	22 8	11 8	120 0	120 0	200 0	10 0	10 0	10 8	3 14 0	3 14 0	3 10 3	Sonthal Parganas.	38	
ORISSA.																	
...	...	...	21 0	21 0	18 7	80 0	80 0	80 0	10 12	10 12	10 12	3 8 0	3 8 0	3 5 0	Cuttack.	39	
...	...	...	17 2	17 2	...	80 0	80 0	...	10 8	11 2	12 0	3 12 0	3 8 0	3 0 0	Puri	40	
...	...	...	10 0	10 0	10 12	130 0	130 0	160 0	11 0	11 0	11 0	3 12 0	3 12 0	3 10 0	Balasore.	41	
CHOTA NAGPUR.																	
19 0	18 0	22 0	17 0	18 0	16 0	240 0	240 0	240 0	9 8	8 0	9 0	4 8 0	4 8 0	4 0 0	Hazaribagh.	42	
20 0	20 0	21 0	Small. 18 8	Small. 20 0	Small. 15 0	...	...	...	9 0	9 0	9 8	4 6 0	4 6 0	4 1 0	Lohardaga.	43	
20 0	20 0	21 0	...	Big. 13 0	Big. 11 0	...	...	...	8 11 1/2	8 9	9 4 1/2	...	...	...	Palamu.	44	
23 10	18 9	23 2	...	...	...	...	...	...	8 0	8 0	9 0	4 6 0	4 6 0	4 6 0	Singbhum.	45	
...	...	...	16 0	16 0	12 0	100 0	100 0	100 0	9 2	9 2	10 10	3 14 0	3 14 0	3 10 0	Manbhum.	46	

c In the subdivisions the retail prices of salt per rupee are :—Madhubani 11 seers and Samastipur 10 seers.

d In the subdivisions the retail prices of salt per rupee are :—Bogusarai 9½ seers and Jamui 10 seers.

e In the subdivisions the retail prices of salt per rupee are :—Bhanka 10 seers, Mulhipura 8½ seers, and Supaul 9 seers.

f In the subdivisions the retail prices of salt per rupee are :—Kishanganj 10 seers and Arraria 9 seers.

g At Rahanpur the retail price of salt is 10½ seers per rupee.

h In the subdivisions the retail prices of salt per rupee are :—Dooghur 10½ seers, Godda 9 seers, Jamtara 9 seers, Pakur 10½ seers, and Rajmahal 10 seers.

i In the subdivisions the retail prices of salt per rupee are :—Jajpur 9 seers, Kontrapura 9 seers, and Banki 11 seers.

j At Bhadrak the retail price of salt is 8 seers per rupee.

k At Gobindpur the retail price of salt is 11 seers per rupee.

Published for general information.

C. E. BUCKLAND,  
Secretary to the Govt. of Bengal.

## PRICES-CURRENT (wholesale) of Food-grains, Firewood, and Salt

Number.	MARTS.	WHEAT.			BARLEY.			RICE, BEST SORT.			RICE COMMON.		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
		R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
1	Calcutta ...	3 2 0	3 2 6	3 6 0	2 10 6	2 9 6	2 12 0	5 7 0	5 7 6	5 0 0	4 0 0	4 0 3	3 12 0
2	Sirajganj ...	2 8 0	2 8 0	3 6 0	...	...	...	6 2 0	5 12 0	5 6 0	3 4 0	4 0 0	3 6 0
3	Dacca ...	3 4 0	3 4 0	...	...	...	...	4 8 0	4 8 0	4 10 0	4 0 0	4 0 0	3 1 0
4	Narayanganj*	...	...	...	...	...	...	...	4 10 0	3 0 0	...	3 8 0	2 12 0
5	Chittagong	3 4 0	3 4 0	4 2 0	...	...	...	4 8 0	4 8 0	4 6 0	3 2 8	3 2 8	3 0 0
6	Patna ...	2 3 6	2 3 6	2 10 6	1 10 6	1 10 6	1 13 9	3 10 0	3 10 0	3 13 0	1 14 6	2 1 6	2 8 0
7	Balasore ...	2 14 0	2 14 0	3 8 0	4 0 0	4 0 0	3 12 0	3 12 0	3 12 0	3 12 0	2 1 6	2 1 6	2 10 0
8	Puri ...	3 12 0	3 12 0	...	...	...	...	5 0 0	5 0 0	5 1 0	2 8 0	2 8 0	2 8 6
9	Cuttack ...	3 0 0	3 0 0	3 10 0	...	...	...	3 10 0	3 10 0	3 12 0	2 8 0	2 12 0	3 0 0

\* Present return not received.

CALCUTTA,  
The 19th December, 1893.

val on the 15th December, 1893.

PRICES PER MAUND

JOWAR OR CHOLUM. ( <i>Sorghum Vulgare</i> .)			BAJRA OR CUMBU. ( <i>Pennisetum typhoides</i> .)		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
2 2 0	2 1 6	2 3 0	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...

2744a

ARHAR OR THUR, CADJAN PEA. ( <i>Cajanus indicus</i> .)			FIREWOOD.			SALT.			MARTS.
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
P. R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	
0 2 3 0	2 3 0	3 0 0	0 7 0	0 7 0	0 7 0	3 11 0	3 11 0	4 0 0	Calcutta.
...	...	...	0 6 6	0 6 6	0 6 6	3 11 0	3 12 0	3 8 0	Sirajganj.
2 2 0	2 2 0	...	0 5 0	0 5 0	0 5 0	4 8 0	4 8 0	3 10 0	Dacca.
...	2 4 0	3 4 0	...	0 6 0	0 8 0	...	4 8 0	3 8 0	Narayanganj.
...	...	...	0 8 0	0 8 0	0 5 0	...	4 0 0	3 9 0	Chittagong.
0 0 1 7 9	1 7 9	1 15 0	0 5 0	0 5 0	0 5 0	3 10 0	3 10 0	3 8 0	Patna.
...	4 0 0	4 0 0	3 10 0	...	...	3 12 0	3 12 0	3 10 0	Balasore.
...	2 5 0	2 5 0	...	0 8 0	0 9 0	...	3 12 0	3 8 0	Puri.
...	2 0 0	2 0 0	2 7 0	0 8 0	0 8 0	3 8 0	3 8 0	3 5 0	Cuttack

O. E. BUCKLAND,  
Secretary to the Govt. of Bengal.

## Meteorological Report of the Province of Bengal

			STATION OBSERVATIONS.											
District.	Representative station.	AIR PRESSURE.			WIND.		TEMPERATURE.							
		Mean barometric height, 8 a.m. reduced to 32°.	Mean reduced to sea-level and constant gravity, lat. 45°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.	
ORISSA.	Puri	30.118	30.073	—	N	171	81.6	10th Dec.	68.6	12, 13 Dec.	80.0	60.4	70.2	
	Gopalpore	30.121	30.083	+0.070	NNW	247	80.7	10th	54.6	13th	78.8	57.1	68.0	
	False Point	30.123	30.089	+0.074	NNW	142	78.9	10th	53.0	12th	77.2	55.9	66.5	
	Cuttack	30.003	30.090	+0.076	Calm	31	82.3	10th	53.9	12th	80.2	56.2	68.9	
	Balasore	30.089	30.095	+0.070	NNW	711	79.3	10th	50.5	11, 13 to 15th	77.7	51.8	64.8	
SOUTH-WEST BENGAL.	Midnapore	30.007	30.111	+0.081	Nly	38	80.3	10th	50.2	13th	78.0	52.6	65.3	
	Calcutta	30.122	30.090	+0.071	Calm	24	76.2	10th	51.7	13th	74.7	53.1	63.9	
	Saugor Island	30.116	30.086	+0.073	NNE	206	76.7	10th	51.7	13th	74.0	53.0	63.4	
	Howrah													
	Nadia	Krishnagar	30.093	30.092	+0.077	WNW	51	75.6	10th	50.0	13th	75.5	51.3	63.4
SOUTH-WEST BENGAL.	Khulna	Jessore	30.101	30.082	+0.073	NNW	34	76.6	10th	51.5	13th	75.5	52.6	64.1
	Burdwan	Burdwan	30.033	30.105	+0.073	NW	29	76.9	10th	52.7	13th	76.0	54.1	65.1
	Banganj	29.817	30.126	+0.075	NW	35	78.0	10th	50.2	13th	76.0	51.6	63.8	
	Bankura	Bankura	29.829	30.101	+0.073	W	49	79.1	10th	50.8	11, 13th	76.6	52.1	64.4
	Birbhum	Berhampore	30.076	30.095	+0.072	NW	32	75.1	10th	53.3	13th	74.2	54.7	64.5
NORTH BENGAL.	Murshidabad	Sirajganj	30.077	30.075	+0.070	Calm	15	75.4	12th	49.9	12th	71.5	51.4	61.6
	Patna	Bogra	30.071	30.098	+0.112	NE & Calm, N	29	75.3	10-13 & 16	48.2	10, 11th	75.1	49.2	62.2
	Rohra	Rampur Bhojla	30.067	30.090	+0.091	N	109	75.6	14th	48.1	11th	74.5	51.0	62.8
	Rajshahi	Malda	30.072	30.100	—	NW	48	75.5	14th	47.5	11th	74.8	48.3	61.5
	Dinajpur	Dinajpur	30.016	30.101	+0.089	NE	32	75.6	13th	47.5	12th	74.6	48.7	61.7
NORTH BENGAL.	Rangpur	Rangpur	30.022	30.108	+0.071	NEly	19	74.8	16th	46.4	11th	74.0	48.2	61.1
	Jalpaiguri	Jalpaiguri	29.861	30.117	+0.079	Nly	26	74.9	10th	48.1	11th	73.8	49.0	61.4
	Kuch Bihar	Darjeeling	29.044	—	+0.021	Variable NEly	64	54.8	12th	31.4	15th	47.6	34.1	40.0
		Guntong	18.911	—	—		89	42.9	12th	13.1	16th	38.9	10.2	29.3
	Chittagong	Chittagong	30.023	30.062	+0.066	NNE	60	78.7	10th	54.1	12th	76.6	56.0	66.3
EAST BENGAL.	Chittagong Hill Tracts	Demagiri					Observations not received.							
	Rackergunge	Barisal	30.092	30.060	+0.068	Calm	35	78.8	10th Dec.	53.0	12, 13 & 16	76.0	53.4	64.7
	Noakhali	Noakhali	30.030	30.092	+0.054	NEly	04	79.1	10th	51.0	13th	76.0	52.7	64.4
	Faridpur	Faridpur	30.085	30.081	+0.074	Calm	26	73.5	10 to 16	51.5	11th	73.5	53.2	63.4
	Dacca	Dacca	30.002	30.091	+0.064	Nly	63	79.1	10th	53.3	11th	77.3	54.7	66.0
NORTH BENGAL.	Tippera	Comilla	30.079	30.064	+0.067	Calm	23	79.4	10th	50.6	11th	77.0	51.9	64.5
	Mymensingh	Mymensingh	30.064	30.078	+0.074	Nly	35	75.7	10th	50.1	12th	74.8	51.7	63.3
	Purnea	Purnea	30.014	30.102	+0.074	Wly	20	73.2	10 to 14 & 16	47.3	11 to 13	73.1	48.7	60.9
	Bhagalpur	Bhagalpur	29.974	30.096	+0.066	Calm	2	75.3	12, 16	47.5	12th	74.6	48.9	61.7
	Darbhanga	Darbhanga	29.975	30.105	+0.074	SWly	35	74.3	17th	51.0	12th	73.5	53.4	63.5
NORTH BENGAL.	Muzaffarpur	Muzaffarpur	29.972	30.115	—	Variable	80	73.7	10, 11	49.3	12th	72.6	51.4	62.1
	Champaran	Motihari	29.903	30.101	+0.067	Wly	75	74.2	10, 13	45.9	11th	73.7	48.3	61.0
	Narain	Chapra	29.973	30.118	+0.100	SWly	52	75.2	10th	49.0	13th	74.1	51.4	62.2
		Dehri	29.803	30.132	+0.082	SW	126	77.3	10th	50.4	11th	75.3	52.1	63.7
	Shahabad	Buxar	29.905	30.115	+0.062	WSW	50	76.6	10th	47.4	13, 14	75.1	50.1	62.6
SOUTH BENGAL.		Arrah	29.964	30.110	+0.087	W	39	75.9	10th	47.5	13th	74.9	49.6	62.3
	Gaya	Gaya	29.771	30.125	+0.060	Sly	149	76.7	10th	48.5	13th	75.6	50.2	63.0
	Patna	Bankipore	29.965	30.112	+0.058	W	61	74.2	10th	49.1	12, 13	73.4	51.4	62.4
	Monghyr													
	Montal Parganas	Naya Dumka	29.636	30.115	+0.077	Calm	46	75.8	16th	48.1	11, 13	74.3	49.5	61.9
CHOTA NAGPUR.	Hazaribagh	Hazaribagh	28.058	30.113	+0.044	NWly	152	76.2	10th	45.3	12th	71.3	47.7	59.5
	Leharaga	Ranchi	27.037	30.103	+0.089	Calm	120	74.5	16th	45.3	12th	70.5	45.5	59.5
	Palamanu	Daltonganj	29.363	30.075	—	SW	31	77.2	16th	42.5	12th	74.9	44.3	59.6
	Singbhum	Chaibassa	29.358	30.115	+0.083	Calm	3	80.3	16th	47.8	13th	76.1	49.5	63.6
	Manbham													

\* Means for 8 days. | † Means for 5 days.

**Explanation.—Summary.**—The normal means of air pressure and temperature are the arithmetical average or means of the reading during the same period. The humidity of the atmosphere is expressed as percentage, saturated air being presented by 100. A clear sky is denoted by 0 and an overcast sky by 10. The normal mean are the numerical means or averages of the rainfall in that district determined from the returns sent in by the subdivisional stations. A rain day is one of

for the week ending Saturday, the 16th of December 1893.

DISTRICT OBSERVATIONS.															DISTRICT.
Variation from normal mean.	Mean 8 A.M., temperature.	Average humidity at 8 A.M.	Average cloud amount at 8 A.M.	Rainfall of week at observing station.	OF WEEK.				RAINFALL.						
					Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Since 1st of month.			Since 16th October 1893.			
									Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.	
-	64.1	76	0	Nil	Nil	0.33	0.00	0.35	Nil	0.77	-0.77	0.83	7.40	-0.57	Puri.
-3.5	61.7	77	0	Nil											
-1.0	61.6	81	1.9	Nil											
-2.3	62.1	68	0.3		Nil	0.16	0.00	0.30	Nil	0.45	-0.45	4.20	4.70	-0.50	Outback.
-1.9	67.6	85	0	Nil	Nil	0.00	0.00	0.16	Nil	0.19	-0.19	4.21	3.23	+0.98	Balasore.
-2.2	59.8	65	0.3	Nil	Nil	0.08	0.00	0.20	Nil	0.21	-0.21	3.32	3.36	-0.04	Midnapore.
-3.0	59.0	84	0	Nil	Nil	0.08	0.00	0.16	Nil	0.24	-0.24	2.44	3.43	-1.04	24-Parganas.
-2.7	60.9	91	0.6	Nil											
					Nil	0.08	0.00	0.23	Nil	0.24	-0.24	2.38	2.41	-0.03		Howrah.
					Nil	0.07	0.00	0.16	Nil	0.19	-0.19	2.83	2.40	+0.43	Hooghly.
-3.6	59.2	80	0.1	Nil	Nil	0.01	0.00	0.03	Nil	0.09	-0.09	1.47	2.20	-0.73	Nadia.
					Nil	0.05	0.00	0.12	Nil	0.30	-0.30	2.19	3.44	-1.25	Khulna.
-3.3	59.6	85	0.1	Nil	Nil	0.03	0.00	0.04	Nil	0.19	-0.19	0.95	2.75	-1.80	Jessore.
-2.4	59.3	71	0.3	Nil	Nil	0.02	0.00	0.05	Nil	0.13	-0.13	2.05	2.21	-0.16	Burdwan.
-2.7	59.1	80	0	Nil											
-3.6	57.4	73	0.6	Nil	Nil	0.02	0.00	0.05	Nil	0.16	-0.16	2.29	2.35	-0.06	Bankura.
					Nil	0.02	0.00	0.14	Nil	0.11	-0.11	1.76	2.12	-0.36	Birbhum.
-2.1	60.7	89	0.3	Nil	Nil	0.02	0.00	0.07	Nil	0.12	-0.12	1.83	2.26	-0.43	Murshidabad.
-4.1	58.0	89	0	Nil	Nil	0.02	0.00	0.08	Nil	0.00	-0.00	3.17	2.83	+0.34	Pabna.
-4.0	58.6	83	0	Nil	Nil	0.04	0.00	0.13	0.03	0.13	-0.08	4.08	2.09	+1.99	Bogra.
-1.6	57.7	81	0	Nil	Nil	0.01	0.00	0.05	Nil	0.11	-0.11	2.73	1.88	+0.85	Rajahm.
-	55.7	85	0	Nil	Nil	0.02	0.00	0.10	Nil	0.08	-0.08	3.13	1.58	+1.55	Malda.
-2.6	55.4	87	0	Nil	Nil	0.05	0.00	0.10	Nil	0.14	-0.14	2.81	1.56	+1.25	Dinajpur.
-2.9	54.9	91	0	Nil	Nil	0.10	0.00	0.15	Nil	0.12	-0.12	1.79	2.21	-0.42	Rangpur.
-3.0	55.8	84	0.0	Nil	Nil	0.06	0.00	0.10	0.39	0.04	+0.33	3.09	3.07	+0.02	Jalpaiguri.
					Nil	0.11	0.00	0.26	0.52	0.11	+0.41	4.34	1.97	+2.37	Knob Bihaz.
-2.6	39.7	73*	2.0	0.32	0.61	0.09	0.00	0.29	0.53	0.11	+0.42	5.59	2.82	+2.76	Darjeeling.
-	25.6	84	2.3	0.15											Ghatag.
-2.6	61.2	91	1.6	Nil	Nil	0.09	0.03	0.15	0.04	0.52	-0.48	6.18	5.46	+0.72	Chittagong.
					Nil	0.06	0.09	0.10	Nil	0.53	-0.53	5.31	4.07	+1.24	Chittagong Hill Tracts.
-2.6	61.5	80	0.1	Nil	Nil	0.06	0.00	0.16	0.03	0.40	-0.37	5.39	3.30	+2.09	Backergunge.
-2.3	60.8	89	0.3	Nil	Nil	0.06	0.00	0.15	0.01	0.78	-0.77	5.09	3.30	+1.79	Noakhali.
-2.4	59.5	89	0	Nil	Nil	0.02	0.00	0.07	0.01	0.12	-0.11	1.67	2.33	-0.66	Faridpur.
-2.6	59.3	85	0	Nil	Nil	0.03	0.00	0.08	Nil	0.20	-0.20	3.00	2.04	+0.96	Dacca.
-2.4	61.1	87	0.4	Nil	Nil	0.04	0.00	0.15	0.01	0.35	-0.34	3.00	3.08	-0.08	Tippura.
-2.5	57.4	92	0.4	Nil	Nil	0.03	0.00	0.07	0.04	0.13	-0.09	3.72	2.90	+0.82	Mymensingh.
-2.7	62.7	91	0	Nil	Nil	0.09	0.00	0.19	Nil	0.10	-0.10	2.67	1.68	+0.99	Purnea.
-1.4	66.0	80	0.3	Nil	Nil	0.04	0.00	0.13	Nil	0.05	-0.05	2.51	1.43	+1.08	Bhagalpur.
-1.0	56.7	90	0.4	Nil	Nil	0.04	0.00	0.14	Nil	0.04	-0.04	0.03	1.04	+0.99	Darbhanga.
-	55.6	92	0.6	Nil	Nil	0.04	0.00	0.14	Nil	0.04	-0.04	7.84	1.20	+6.64	Muzaffarpur.
-1.5	55.1	93	0.6	Nil	Nil	0.08	0.00	0.16	Nil	0.09	-0.09	8.62	0.50	+8.12	Champaran.
-0.4	57.7	82	1.9	Nil	Nil	0.07	0.00	0.20	Nil	0.07	-0.07	3.80	1.06	+2.74	Saran.
?	58.1	80	0	Nil											
-0.6	55.9	68	1.1	Nil	Nil	0.18	0.00	0.21	Nil	0.18	-0.18	6.25	1.51	+4.74	Shahabad.
-0.4	54.0	80	1.0	Nil											
-0.7	57.4	70	2.7	Nil	Nil	0.12	0.00	0.11	Nil	0.12	-0.12	2.53	1.13	+1.40	Gaya.
-1.1	58.3	72	1.3	Nil	Nil	0.08	0.00	0.14	Nil	0.08	-0.08	4.40	1.40	+3.00	Patna.
					Nil	0.08	0.00	0.07	Nil	0.03	-0.03	1.71	1.54	+0.17	Monkhyr.
-2.0	54.6	80	0	Nil	Nil	0.01	0.00	0.04	Nil	0.06	-0.06	2.43	1.74	+0.69	Sonthal Parganas.
-1.7	55.3	62	0	Nil	Nil	0.10	0.00	0.11	Nil	0.12	-0.12	3.57	1.59	+1.98	Hazaribagh.
-1.5	67.1	63	0.6	Nil	Nil	0.11	0.00	0.13	0.01	0.14	-0.13	3.36	1.81	+1.55	Lohardaga.
-	56.3	77	0.0	Nil	Nil	0.04	0.00	0.10	Nil	0.04	-0.04	2.34	1.45	+0.89	Palaman.
-1.4	55.1	76	0.0	Nil	Nil	0.11	0.00	0.25	Nil	0.21	-0.21	0.87	2.28	-1.41	Singhbhum.
					Nil	0.05	0.00	0.16	0.01	0.13	-0.11	1.94	1.59	+0.35	Manbhum.

for the last ten years. The variations are *negative* when the mean for the week is less than the corresponding normal mean, and *positive* when greater. The numbers denoting cloud amount represents the part of the sky covered the whole sky being denoted by 10. Under the head District observations of for the period in question during the past ten years. The means of the district are the numerical average of the rainfall returned received in the which at least a tenth of an inch fall.









**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL FOR THE WEEK ENDING 8 A.M., SATURDAY  
THE 16TH OF DECEMBER 1893.**

THE meteorological conditions during the week again call for no detailed review, for fine settled weather of ordinary north-east monsoon character has prevailed throughout the period. At the commencement of the week pressure was unusually high, being above the normal in most districts by from 0·08" to 0·1". The excess pressure in the south of the Bay was only equal to about 0·06", so that the differences of pressure were somewhat larger than usual, and hence the north-east monsoon current blowing was rather strong. Temperature also on the 10th, or the first day of the week, was in small to moderate defect in all except the extreme western districts and in Orissa, where slight excess temperatures were still registered. On the 11th the barometric changes were extremely small, while temperature had fallen, and had become in defect at all stations, the defect in the mean temperature ranging up to about 5° at some of the north-eastern stations. On the 12th, 13th, 14th, and 15th the changes both of temperature and pressure were small and unimportant, though on the whole temperature was increasing slowly, and on the 16th, or the last day of the week, while pressure was still in excess by about 0·08" to 0·1", the mean temperature had become slightly above the normal over a large part of the western half of the province, while only small defects, generally between 1° and 2°, were registered over the remainder. At the same time the excess pressure in the south of the Bay only equalled about 0·03", so that again baric gradients were decidedly steep—considerable steeper than usual, and hence a fairly strong northerly wind current was blowing over Bengal and over the whole Bay. Throughout the whole week, therefore, fine weather with almost cloudless skies has prevailed, and there has been absolutely no rainfall except for a few light showers in the Darjeeling district, which were reported on the 16th.

*Pressure.*—The mean pressure for the week has hence been in very considerable excess in all districts, the usual excess varying from 0·09" to 0·07", and this excess has generally been largest in the north-eastern districts and smallest at the southern stations. The excess, however, seems to have been comparatively small in the upper strata of the atmosphere, where Darjeeling reports an excess of only 0·02".

*Temperature.*—The mean temperature of the whole province for the week has been below the normal by 2·1°, and the defect has been largest in South-West and North Bengal, where it has averaged about 3°.

The actual temperatures registered during the week and their variations from the usual temperature for the present season are most clearly seen in the table below, where the average maximum, minimum and mean temperatures for the week at nine typical stations in different districts of the province are compared with the normal values for the same period. The variations it will be seen have been large in both the night and day temperatures, which have been considerably below the normal, the usual defect at the nine stations averaging 1·8° in the case of the day, or maximum temperature, and 2·4° in the minimum, or night temperature.

*Table showing the excess or defect of the actual mean temperature from the normal for the week ending Saturday, the 16th of December 1893.*

	Normal mean maximum temperature for the week ending 16th December.	Actual mean maximum temperature for the week ending 16th December 1893.	Variation of actual mean from the normal.	Normal mean minimum temperature for the week ending 16th December.	Actual mean minimum temperature for the week ending 16th December 1893.	Variation of actual mean from the normal.	Normal mean daily temperature for the week ending 16th December.	Actual mean daily temperature for the week ending 16th December 1893.	Variation of actual mean from the normal.
Cuttack ... ..	89·1	80·2	-1·9	58·9	56·2	-2·7	70·5	68·2	-2·3
Calcutta ... ..	76·8	74·7	-2·1	57·0	53·1	-3·9	66·9	63·9	-3·0
Dacca ... ..	70·0	72·3	+2·3	58·2	54·7	-3·5	65·0	66·0	+1·0
Burdwan ... ..	78·2	70·0	-8·2	56·7	54·4	-2·3	67·4	65·1	-2·3
Patna ... ..	74·7	73·4	-1·3	52·2	51·4	-0·8	63·5	62·4	-1·1
Gaya ... ..	70·1	73·0	+2·9	51·1	50·2	-0·9	61·0	63·0	+2·0
Purnea ... ..	76·8	73·1	-3·7	56·3	48·7	-7·6	63·6	60·9	-2·7
Hazarihagh ... ..	71·7	71·3	-0·4	50·7	47·7	-3·0	61·2	59·5	-1·7
Darjeeling ... ..	40·0	47·6	+7·6	37·0	31·1	-5·9	43·5	40·9	-2·6

*Rainfall.*—Except for two or three light showers in the Darjeeling district, which were reported on the 16th, the whole province has been rainless throughout the week.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 16th of December 1893:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.						RAINFALL.									
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.		Rainy days.			Since 1st of month.		Since 16th Oct. 1893.		
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.
Orissa ... ..	82.8	50.5	78.8	50.3	67.5	-2.2	Nil	0.18	-0.18	0.00	0.28	-0.28	Nil	0.44	5.43	4.87
South-West Bengal ...	80.3	50.0	75.7	53.1	64.4	-2.0	Nil	0.04	-0.04	0.00	0.10	-0.10	Nil	0.18	3.04	2.81
North Bengal ... ..	76.6	46.4	73.9	40.4	61.8	-3.1	Nil	0.06	-0.06	0.00	0.13	-0.13	0.01	0.12	3.06	1.90
East Bengal ... ..	79.4	50.1	75.9	53.4	64.7	-2.5	Nil	0.04	-0.04	0.00	0.11	-0.11	0.01	0.31	4.18	3.48
North Bihar ... ..	75.3	45.9	73.7	50.4	62.0	-1.5	Nil	0.06	-0.06	0.00	0.16	-0.16	Nil	0.06	5.25	1.17
South Bihar ... ..	77.3	47.4	74.8	50.5	62.7	-1.0	Nil	0.08	-0.08	0.00	0.12	-0.12	Nil	0.09	3.56	1.82
Chota Nagpur ... ..	80.3*	45.3*	73.3*	48.5*	60.9*	-1.5*	Nil	0.09	-0.09	0.00	0.13	-0.13	Nil	0.12	3.21	1.51

\* Daltonganj not included.

METEOROLOGICAL OFFICE, BENGAL,  
The 19th December 1893.

A. PEDLER,  
Meteorological Reporter to the Govt. of Bengal.

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 10th to 16th December 1893.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32 Fahr.	TEMPERATURE.						HYGROMETRY.			Rain/fall, past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
December	10th	30.142	64.7	74.9	20.5	54.4	71.1	60.7	.303	52.3	52	Nil
"	11th	.145	64.2	74.9	21.4	53.5	69.6	59.7	.381	51.4	53	"
"	12th	.138	63.2	74.9	22.0	52.9	68.1	60.7	.433	54.9	63	"
"	13th	.139	64.2	75.9	23.4	52.5	69.6	60.7	.413	53.5	57	"
"	14th	.112	64.4	75.9	23.0	52.9	69.6	61.7	.445	55.7	61	"
"	15th	.142	64.9	76.9	24.0	52.9	69.1	62.2	.469	57.1	65	"
"	16th	.176	65.7	76.9	22.5	54.4	70.4	62.2	.451	56.1	60	"

The mean 10 A.M. pressure of the seven days	...	...	...	Inches. 30.142
The mean temperature of the seven days	...	...	...	64.6
The extreme variation of temperature	...	...	...	24.4
The maximum temperature	...	...	...	76.9
The mean 10 A.M. relative humidity of the seven days	...	...	...	% 59
The total fall of rain from 10th to 16th December 1893	...	...	...	Inch. Nil
The daily mean temperatures are the crude means of maximum and minimum temperatures.				

C. LITTLE,  
For Meteorological Reporter to the Govt. of India.  
METEOROLOGICAL OFFICE, INDIA,  
The 18th December 1893.

Results of the Meteorological Observations taken at the Alipore Observatory from  
10th to 16th December 1893.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
		°		Inches.	°	°	°	°	°	Inches.	°	%			Inches.	
Dec.	10th	126.7	9.0	30.086	64.0	73.7	19.1	54.6	58.3	0.412	53.6	71	NNW and calm	57	Nil	Clear, P.
"	11th	128.0	9.2	.075	62.8	73.7	20.3	53.4	56.6	.378	51.2	69	N and calm	45		Clear, P.
"	12th	127.0	9.1	.080	62.6	74.0	20.9	53.1	57.1	.398	52.6	72	NNW and calm	22	"	Clear, P.
"	13th	123.8	8.5	.061	62.4	74.6	23.1	51.5	57.3	.411	51.6	74	NNW and calm	10	"	Clear, P, H.
"	14th	125.5	8.9	.016	62.7	74.7	21.9	52.8	58.0	.422	54.2	76	NNW and calm	10	"	Chiefly clear, P.
"	15th	126.1	9.0	.082	62.9	75.6	22.8	52.7	58.5	.437	55.2	78	NNW and calm	9	"	Clear, P, =.
"	16th	123.5	8.9	.125	63.6	76.7	22.7	53.0	59.1	.445	55.7	77	N and calm	27	"	Chiefly clear, P, =.

The mean pressure of the seven days	...	...	...	Inches.
The average pressure of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	30.080
The total number of hours of bright sunshine	...	...	...	Hours.
The maximum possible number of hours of sunshine	...	...	...	62.6
				75.1
The mean temperature of the seven days	...	...	...	63.0
The average temperature of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	67.8
The extreme variation of temperature	...	...	...	24.2
The maximum temperature	...	...	...	75.7
				Miles.
The highest velocity of the wind in one hour	...	...	...	10
				lbs.
The highest pressure of wind on one square foot	...	...	...	?
				%
The mean relative humidity	...	...	...	74
The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	71
				Inches.
The total fall of rain from 10th to 16th December 1893	...	...	...	Nil
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	0.04
The total fall from 1st January to 16th December 1893	...	...	...	85.23
The average fall of the corresponding period for 24 years, Surveyor-General's Office	...	...	...	65.23

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

P, dew; =, fog.

## IRRIGATION DEPARTMENT, BENGAL.

*Abstract statement showing Tollage on Canals in Bengal classed as Major Works for the month of October 1893, as compared with that of the corresponding month of the previous year.*

CANALS.	TOLLAGE, 1893-94.			TOLLAGE, 1892-93.		
	During the month.		To end of the month.	During the month.		To end of the month.
<i>Orissa Circle.</i>	Rs.	A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Taldanda Canal System	429	8 6	9,755 6 2	332	11 6	5,294 4 3
Kendrapara ditto	7,591	6 0	43,382 2 5	6,760	4 1	32,902 12 7
High Level, Range I	1,225	13 9	8,982 4 3	1,454	11 9	7,384 2 9
Ditto " II	275	12 7	1,845 13 10	269	4 3	1,219 4 9
Ditto " III	160	12 0	1,209 0 0	159	6 3	704 0 9
Jajpur Canal	36	4 3	200 5 7	25	8 9	105 4 6
Total Orissa Circle	9,719	9 1	70,375 0 3	8,992	14 7	47,609 13 7
<i>South-Western Circle.</i>						
Midnapore Canal	10,094	15 3	57,613 5 9	7,695	10 3	70,005 8 9
Hijili Tidal Canal	4,593	4 6	37,253 5 6	3,060	2 6	32,773 3 3
Total South-Western Circle	14,688	3 9	94,866 11 3	10,755	12 9	1,02,778 12 0
<i>Sone Circle.</i>						
Patna Canal System	1,019	5 0	13,013 14 6	1,243	7 6	13,521 6 0
Arrah ditto	910	8 10	12,270 10 4	805	7 6	11,262 12 6
Buxar ditto	421	13 2	4,155 8 2	654	15 9	6,384 8 0
Total Sone Circle	2,351	11 0	29,440 1 0	2,703	14 9	31,168 10 6
GRAND TOTAL	26,759	7 10	1,94,681 12 6	22,452	10 1	1,81,557 4 1

## Government Transport Service.

CANAL.	TOLLAGE, 1893-94.						TOLLAGE, 1892-93.					
	During the month.			To end of the month.			During the month.			To end of the month.		
	Passengers.	Goods.	Total receipts.	Passengers.	Goods.	Total receipts.	Passengers.	Goods.	Total receipts.	Passengers.	Goods.	Total receipts.
<i>Orissa Circle.</i>	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.
High Level	1,858	329	1,902 8 0	15,346	4,152	15,368 1 1	2,260	717	1,887 0 4	7,035	3,830	7,217 10 3
Total Orissa Circle	1,858	329	1,902 8 0	15,346	4,152	15,368 1 1	2,260	717	1,887 9 4	7,035	3,830	7,217 10 3

## Total Navigation Receipts.

CANALS.	EARNINGS, 1893-94.			EARNINGS, 1892-93.		
	During the month.		To end of the month.	During the month.		To end of the month.
	Rs.	A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Orissa Canals	11,622	1 1	85,743 1 4	10,880	7 11	54,827 7 10
Midnapore Canal	10,094	15 3	57,613 5 9	7,695	10 3	70,005 8 9
Hijili Tidal Canal	4,593	4 6	37,253 5 6	3,060	2 6	32,773 3 3
Sone Canals	2,351	11 0	29,440 1 0	2,703	14 9	31,168 10 6
Total	28,661	15 10	2,10,049 13 7	24,340	3 5	1,88,774 14 4

CALCUTTA,  
The 19th December 1893.

G. O. MACONCHY,  
Under-Secy. to the Govt. of Bengal.

## . IRRIGATION DEPARTMENT, BENGAL.

*Abstract statement showing Tollage on Canals in Bengal classed as Minor Works and Navigation for the month of October 1893, as compared with that of the corresponding month of the previous year.*

CANALS.	TOLLAGE, 1893-94.		TOLLAGE, 1892-93.	
	During the month.	To end of the month.	During the month.	To end of the month.
	Rs.   A.   P.	Rs.   A.   P.	Rs.   A.   P.	Rs.   A.   P.
Calcutta and Eastern Canals ...	33,475   11   9	1,54,304   9   3	30,895   10   6	1,49,837   10   9
Tolly's Nala ...	6,915   0   9	42,908   3   9	6,664   0   0	43,220   8   3
Total ...	40,390   12   6	1,97,212   13   0	37,559   10   6	1,93,058   3   0
Orissa Coast Canal ...	8,101   9   9	62,346   9   9	4,309   5   3	28,932   0   9
Nadia Rivers ..	18,844   7   0	1,26,875   4   10	15,949   12   0	1,13,119   8   9
GRAND TOTAL	67,336   13   3	3,86,434   11   7	57,818   11   9	3,35,109   12   6

CALCUTTA,  
The 19th December 1893

G. C. MONCHY,  
Under-Secy. to the Govt. of Bengal.

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 9th December 1893, on 1,610½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	270,061	Rs. A. P. 3 10,924 15 0	Mds. S. 27,27,125 0	Rs. A. P. 6,89,925 6 0	Rs. A. P. 18,546 2 0	Rs. A. P. 10,17,376 7 0	76,816	110,088	186,904
Or per mile of railway ...	167	193 1 0	169	428 6 3	10 4 4	631 11 7	...	...	...
For previous 22½ weeks of half-year ...	6,097,867	69,07,867 1 0	5,31,78,919 0	1,29,47,902 6 0	3,41,875 4 0	1,92,97,614 11 0	1,700,196½	2,172,222½	3,872,419
Total for 23½ weeks ...	6,367,928	72,18,792 0 0	5,50,00,244 0	1,27,37,827 12 0	3,58,420 6 0	2,03,15,010 2 0	1,777,012½	2,382,310½	4,059,323
COMPARISON.									
Total for corresponding week of previous year ...	232,075	2,95,873 7 3	28,63,677 3½	6,94,827 4 7	81,465 13 0	10,72,106 0 4	75,747	108,874	184,621
Per mile of railway corresponding week of previous year ...	144	183 11 5	144	431 7 0	50 9 4	665 11 0	...	...	...
Total for corresponding 23½ weeks of previous year ...	6,078,962½	65,32,300 0 1	5,43,64,916 10	1,25,27,547 8 9	4,54,317 15 8	1,93,14,106 16 0	1,740,370	2,193,564	3,933,934

## TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 9th December 1893, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	17,181	Rs. A. P. 4,430 12 0	Mds. S. 12,15 20	Rs. A. P. 479 8 0	Rs. A. P. 8 0 0	Rs. A. P. 4,918 4 0	9½	121	1,022
Or per mile of railway ...	766	193 2 2	542	21 8 10	0 6 9	221 0 9	...	...	...
For previous 22½ weeks of half-year ...	394,880	96,592 8 0	12,12,777 0	17,280 9 0	1,351 0 0	1,04,223 12 0	19,870	1,632½	21,502½
Total for 23½ weeks ...	412,061	1,01,021 15 0	2,24,902 20	7,769 1 0	359 0 0	1,09,142 0 0	20,771	1,763½	22,534½
COMPARISON.									
Total for corresponding week of previous year ...	17,654	4,197 4 4	12,341 10	612 9 0	13 12 6	4,823 9 10	862	160	1,022
Per mile of railway corresponding week of previous year ...	785	188 10 3	549	27 8 6	0 9 11	216 12 8	...	...	...
Total for corresponding 23½ weeks of previous year ...	431,066½	1,08,172 10 2	1,75,504 3½	7,520 9 0	239 10 0	1,16,302 13 2	20,911	1,760	22,671

\* Added number of passengers 1,400 and Rs. 42½ on account of difference between the approximate and audited figures for the weeks ended 28th Oct. and 4th November 1893.  
 † Do. maunds 651 and .. 13½  
 ‡ Deducted

## DELHI-UMBALLA-KALKA RAILWAY.

Approximate Return of Traffic for week ended 9th December 1893, on 161½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	16,113	Rs. A. P. 10,663 5 0	Mds. S. 87,376 30	Rs. A. P. 10,526 15 0	Rs. A. P. 49 0 0	Rs. A. P. 21,230 4 0	5,624	3,575	9,099
Or per mile of railway ...	100	66 1 1	542	65 3 7	0 4 10	131 9 6	...	...	...
For previous 22½ weeks of half-year ...	440,351	3,33,454 6 0	14,30,607 20	1,18,715 2 0	1,065 0 0	5,16,134 8 0	130,800	64,890½	201,690½
Total for 23½ weeks ...	456,464	3,41,117 11 0	15,10,984 10	1,24,242 1 0	1,014 0 0	5,36,373 12 0	142,324	68,462½	210,786½
COMPARISON.									
Total for corresponding week of previous year ...	14,765	10,306 7 11	50,610 0	9,435 11 0	21 14 0	19,764 1 8	5,427	2,020	8,356
Per mile of railway corresponding week of previous year ...	91	63 13 8	307	58 7 5	0 2 2	122 7 3	...	...	...
Total for corresponding 23½ weeks of previous year ...	392,142	3,02,372 1 6	10,16,854 20	1,72,847 15 8	2,202 3 3	4,78,022 4 4	148,031	59,260	207,330

\* Added number of passengers 716 and Rs. 2,850 on account of difference between the approximate and audited figures for the weeks ended 28th October and 4th November 1893.  
 † Do. maunds 21,012 and .. 32½  
 ‡ Do.

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K.-D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for the week ended 9th December 1893, on 778 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	198,000	91,220 0 0	7,43,820 0	1,48,440 0 0	16,880 0 0	2,36,200 0 0	28,338	31,477	59,835
Or per mile of railway ...	256	117 0 0	956 0	191 0 0	13 0 0	301 0 0	...	...	...
For previous 22 weeks of half-year* ...	3,734,678	17,21,195 0 0	19,108,651 0	38,68,470 0 0	3,95,714 0 0	59,63,370 0 0	222,224	770,209	1,401,433
Total for 23 weeks ...	3,933,578	18,12,415 0 0	19,911,871 0	40,16,910 0 0	4,11,594 0 0	62,40,919 0 0	650,562	810,686	1,461,268
COMPARISON.									
Total for corresponding* week of previous year ...	193,680	81,888 0 0	680,918 0	1,25,629 0 0	10,991 0 0	2,21,538 0 0	31,703	20,000	57,703
Per mile of railway corresponding week of previous year ...	249	109 0 0	748 0	162 0 0	12 0 0	273 0 0	...	...	...
Total to corresponding date of previous year ...	3,713,591	16,73,644 0 0	17,194,584 0	41,22,191 0 0	4,21,188 0 0	62,16,933 0 0	630,414	876,624	1,513,038

\* Audited up to week ending 14th October 1893.  
† Excluding steamer earnings.

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for the week ended 9th December 1893, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	37,180	12,930 0 0	23,890 0	2,110 0 0	310 0 0	15,650 0 0	3,844	1,828	5,672
Or per mile of railway ...	297	103 0 0	231 0	19 0 0	3 0 0	125 0 0	...	...	...
For previous 22 weeks of half-year* ...	679,567	2,35,470 0 0	12,16,905 0	2,78,400 0 0	3,383 0 0	3,32,692 0 0	81,405	44,470	125,894
Total for 23 weeks ...	729,747	2,46,400 0 0	12,35,825 0	2,83,410 0 0	3,693 0 0	3,48,332 0 0	85,249	46,307	131,556
COMPARISON.									
Total for corresponding week of previous year ...	35,976	10,902 0 0	49,206 0	3,649 0 0	140 0 0	14,731 0 0	3,844	1,896	5,680
Per mile of railway corresponding week of previous year ...	288	88 0 0	394 0	29 0 0	1 0 0	118 0 0	...	...	...
Total to corresponding date of previous year ...	709,981	2,38,555 0 0	12,72,271 0	1,95,971 0 0	4,160 0 0	3,48,687 0 0	85,785	48,802	134,647

\* Audited up to week ending 14th October 1893.

## DACCA STATE RAILWAY.

Approximate Return of Traffic for the week ended 9th December 1893, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	22,320	7,630 0 0	32,290 0	3,130 0 0	70 0 0	10,230 0 0	2,487	737	3,224
Or per mile of railway ...	260	82 0 0	375 0	36 0 0	1 0 0	119 0 0	...	...	...
For previous 22 weeks of half-year* ...	340,591	1,33,902 0 0	7,75,422 0	63,890 0 0	8,570 0 0	2,01,461 0 0	55,623	24,165	79,788
Total for 23 weeks ...	411,911	1,41,532 0 0	8,07,712 0	67,020 0 0	8,640 0 0	2,11,601 0 0	68,110	24,902	93,012
COMPARISON.									
Total for corresponding week of previous year ...	22,116	7,393 0 0	22,844 0	2,347 0 0	107 0 0	9,846 0 0	2,547	737	3,284
Per mile of railway corresponding week of previous year ...	267	86 0 0	266 0	27 0 0	1 0 0	114 0 0	...	...	...
Total to corresponding date of previous year ...	393,275	1,28,376 0 0	5,63,748 0	49,903 0 0	4,811 0 0	1,83,089 0 0	58,748	17,409	76,157

\* Audited up to week ending 14th October 1893.

## BENGAL AND NORTH-WESTERN RAILWAY.

(INCLUDES THE TIBHUT STATE RAILWAY.)

Approximate return of traffic for the week ending 9th December 1893, on 756 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-bont.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs.	Mds.	Rs.	Rs.	Rs.			
Total traffic for the week on 756 miles open ... ..	88,786	38,730	2,70,290	41,940	8,090	92,660	11,039	13,768	28,707
Or per mile of railway ... ..	113.53	51.23	365.46	55.45	11.89	122.57	...	...	...
For previous 22½ weeks of half-year (a) ... ..	2,221,601	8,19,749	54,23,349	7,34,300	2,02,163	17,56,213	338,740	298,421	637,161
Total for 23½ weeks ... ..	2,141,441	8,58,479	56,90,638	7,79,240	2,11,153	18,48,872	353,679	312,189	665,868
COMPARISON.									
Total for corresponding week of previous year on 755 miles open ... ..	85,730	34,530	3,55,725	47,083	10,513	95,823	12,329	16,323	28,652
Per mile of corresponding week of previous year ... ..	113.53	51.05	471.16	62.36	13.65	127.05	...	...	...
Total to corresponding date of previous year ... ..	2,094,834	8,37,762	63,12,076	8,46,733	2,21,214	19,05,799	318,013	356,115	674,128

(a) Includes audited figures up to 31st November 1893.

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

	Rs.	A.	P.
Approximate earnings for the week ending 2nd December 1893 ... ..	...	...	12,152 0 0
Corresponding period of 1892 ... ..	...	...	10,792 0 0
Increase ... ..	...	...	1,600 0 0
Receipts per mile for the week ending 2nd December 1893 ... ..	...	...	238 4 5
Corresponding period of 1892 ... ..	...	...	207 10 11
Increase ... ..	...	...	30 9 6
Receipts from 1st July to 2nd December 1893 ... ..	...	...	2,73,294 0 0
Corresponding period of 1892 ... ..	...	...	2,72,871 0 0
Increase ... ..	...	...	423 0 0

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

	Rs.	A.	P.
Approximate earnings for the week ending 9th December 1893 ... ..	...	...	11,962 0 0
Corresponding period of 1892 ... ..	...	...	12,335 0 0
Decrease ... ..	...	...	373 0 0
Receipts per mile for the week ending 9th December 1893 ... ..	...	...	234 8 9
Corresponding period of 1892 ... ..	...	...	241 14 1
Decrease ... ..	...	...	7 6 4
Receipts from 1st July to 9th December 1893 ... ..	...	...	2,85,256 0 0
Corresponding period of 1892 ... ..	...	...	2,85,296 0 0
Increase ... ..	...	...	50 0 0





# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, DECEMBER 27, 1893.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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## RESOLUTION ON THE ANNUAL AGRICULTURAL REPORT FOR 1892-93.

### REVENUE DEPARTMENT—AGRICULTURE.

*Calcutta, the 26th December 1893.*

#### RESOLUTION No. 5309Agri.

READ—

Letter No. 977A., dated the 14th September 1893, from the Board of Revenue, submitting the Annual Agricultural Report of the Director of the Department of Land Records and Agriculture for the year ending 31st March 1893.

THIS is the first separate report on Agriculture which Government has received, and the Lieutenant-Governor is pleased to record his satisfaction with the care and completeness with which the report has been drawn up. The first chapter contains a brief account of the harvests of the year, together with a list of the Agricultural Statistics which, under existing orders, the Director furnishes to Government. The Director's estimate of the outturn of the various harvests is on the whole favourable, and the Lieutenant-Governor fully accepts the view that, except in a few districts, the production of food-grains during the year was not less than the average. The statistics furnished comprise periodical forecasts and reports relating to the different crops and were submitted with commendable punctuality during the year, together with certain annual statements, of which the most important form the set of statistics known as the "Agricultural Statistics" for 1891-92. The latter were received

long after the date on which they were due; but it is known that their compilation entails considerable labour. Similar statistics for 1892-93 are now overdue, and have not yet reached Government.

2. The number of emigrants from Bihar to Burma increased from 77 in 1891-92 to 313 during the year under report; nearly all of them were from the neighbourhood of Arrah.

Emigration to Burma.

Mr. Macpherson quotes some interesting remarks on the subject by Mr. J. L. Mackay, C.I.E., from which the following extract is taken:—

"Several men of the first batches of emigrants have been back to their homes for their families and friends, thus doing recruiter's work in its most satisfactory form.

"It has been found by experience that Biharis are not suited to compete successfully with the Mossi coolies employed in factories, &c., in Rangoon and the towns, but they do better as agriculturists. The men who returned to their friends are all of this latter class, and they speak well of the country and their prospects when questioned.

"The requirements and conditions of the journey and voyage are becoming much better known, and the emigrants now show scarcely any of the fear and hesitation that appeared at first, though there are still occasional desertions at the last moment before sailing."

3. No tree-planting operations on a large scale were carried on during the year. The Board of Revenue suggest that the cultivation of pear, apple and other fruit trees should

Tree-planting.

be tried experimentally on the large plateau called the "Main Pat" in Sirguja, or other elevated tracts in the Tributary States of Chota Nagpur, but such experiments must be left to private enterprise, unless as suggested the Chiefs will take an interest in the matter.

In this connection, it may be remarked that a report written in 1883 by the late Mr. Worsley, regarding the system of planting trees along the sides of roads followed by him when he was in charge of the district of Muzaffarpur was, with some additions, circulated to all Commissioners of Divisions during the year, with an expression of the Lieutenant-Governor's opinion that Mr. Worsley's system might be adopted with advantage by all District Officers and District Boards in Bengal. Under this system young trees are raised in nurseries from seed sown in pots, and when five or six feet high they are planted out at the commencement of the rainy season along the sides of roads. A list of trees was drawn up whose planting was recommended where the soil is suitable, care being taken not to plant large and small fruit-bearing and timber trees indiscriminately together.

4. In connection with the enquiry into the diseases of silkworms on which

Pebrine.

Mr. Nitya Gopal Mukherji has been employed since 1886, the Lieutenant-Governor recognizes

the useful work done by that officer in promoting the distribution and use of healthy seed. The rearing stations of Kalimpong, Pokhuria and Khulna were kept up during the year, and new stations were opened at Babukhali in Jessore and Kagachina in Malda. The growing popularity among native rearers of seed selected on the system adopted by Mr. Mukherji is an encouraging proof of the progress which has been made. His Honour has also read with interest the account contained in the Director's Report of the experiments recently conducted at Alipore by Messrs. J. A. Anderson and R. A. Lyall. These gentlemen are to be congratulated on the success with which they obtained healthy seed by the simple device of subjecting the worms to healthy conditions of life, including constant and sufficient food. Their success, indeed, has been such as to suggest a doubt in regard to the existence in India of the diseases known as pebrine and muscardine, which, being due to specific causes, cannot, it is said, be eradicated by merely providing the worms with good food and fresh air. This surmise, however, which can only be regarded as tentative, is at variance with the view hitherto accepted; and in order to set all doubts at rest, Mr. Mukherji has been requested to take steps to bring the matter to a practical issue. The experiments will be undertaken as soon as the necessary appliances are available, and their result is awaited by Government with interest.

5. A large part of the report is taken up with an account of the agricultural experiments conducted in these Provinces during the year. The Lieutenant-Governor, while admitting

Agricultural experiments.

the interesting nature of those experiments, concurs in the remark made by the

Board that their history is not of great general value on account of the absence of sufficient information as to the soils experimented on.

6. At the Burdwan farm experiments were conducted by the Director's Assistant, Mr. Nagendra Nath Banerji, with Burdwan experimental farm. sugarcane, fodder-grasses, jute, paddy, maize, potatoes, wheat, barley, gram and oats. They showed, among other things, that a mixture of bonemeal and saltpetre proves a profitable manure for the winter paddy crop. The best plot on the farm yielded  $55\frac{1}{2}$  maunds of grain, and 61 maunds 35 seers of straw per acre, a result obtained by the application of 3 maunds of bonemeal and 30 seers of saltpetre, costing Rs. 9-6 per acre. After deducting the cost of manure and of cultivation, the net profit per acre in the plot amounted to Rs. 99-10-3.

The gross expenditure of the farm during the year was Rs. 1,361-5-9, against Rs. 1,565-14-4 of the preceding year, the increase being due to the addition of new land to the farm. The actual cost of cultivation was Rs. 1,193-6, while the income was Rs. 1,167-7 as against Rs. 1,162-3 in the previous year.

7. The crops under experiment in the Dumraon Farm were winter paddy, sugarcane and wheat; in the Bhojpur Farm potatoes, and in the Sibpur Farm jute, and paddy, fodder grasses, wheat, oats, barley, potatoes, sugarcane, cotton, tobacco, and cabbage. One of the results brought out by the experiments was to confirm the experience of previous years that a plough which inverts the soil gives a larger outturn of wheat and paddy than the country plough which breaks the soil, but does not invert it. It is reported that a plot on which a plough of the former description had been used gave 2 maunds 10 seers of wheat, and a net profit of Rs. 6-6 over and above the outturn and net profit of a plot on which the country plough had been used.

The total expenditure at Dumraon and Bhojpur on the experimental farms and Economic Museum amounted to Rs. 1,856-5-11, the actual cost of cultivation being only Rs. 483-8.

8. The cultivation of tobacco was undertaken for the first time in the Sibpur Farm. Three country varieties, viz. (1) Rangpur, (2) Matihar, (3) Hingli, and the American variety known as *Macana* were planted on one-third of an acre of land, and it is reported that they gave a good outturn. The leaves were cured in the shade, and Government will be glad to be informed of the further progress of the experiment, when the opinion of an expert has been obtained on the results achieved.

The total actual cost of cultivation in the Sibpur Farm amounted to Rs. 1,522-8-1, while the income was Rs. 1,225-5-6.

9. The manufacture of bonemeal was continued during the year at the Jalpaiguri and Darjeeling Jails, and was also introduced into the Saran Jail. The bone-crushing operations at the Jalpaiguri Jail were transferred in July 1892 to the exclusive supervision of the Jail Department. The total outturn of bonemeal in the Jalpaiguri Jail amounted to 77 maunds 25 seers, which were sold chiefly to European tea planters, for Rs. 110-8. Two hundred maunds of bonemeal were manufactured at the Saran Jail, and sold to an European indigo planter at Re. 1-8 per maund, the cost of manufacture being a little under Re. 1. The Director gives in his 40th paragraph an interesting summary of the results of the action taken by his Department since 1890 in the utilization of bones for manure. It is to be regretted that native cultivators have not hitherto appreciated the advantages of bonemeal manure to a greater extent.

10. The Bengal Veterinary Institution, located at Belgachia on the Belgachia-Dum-Dum road, about five miles from Government House, is now practically ready. The Institution owes its origin mainly to the munificence of Babu Sheo Baksh Bogla of Calcutta, who contributed Rs. 30,000 and  $3\frac{1}{4}$  bighas of land, and of Sir Dinshaw Manukji Petit of Bombay, who gave a further donation of Rs. 25,000. The total cost of the buildings will be Rs. 82,799 according to the estimate, and the balance required will be provided from Provincial revenues. The Institu-

tion, which has been constructed on plans approved by the Committee of Management and the Inspector-General of the Civil Veterinary Department, includes a lecture-room, museum, pharmacy, library, reading-room, four horse wards and four cattle wards, *post-mortem* room, forge and stables for isolated cases, besides offices for the Superintendent and Assistant Superintendent, and a residence for the latter. Veterinary Captain W. D. Gunn was appointed during the year to be Superintendent of the Civil Veterinary Department, Bengal, and of the Bengal Veterinary Institution, and all District Boards were informed that he would be available for consultation by them and other local authorities on <sup>all</sup> ~~any~~ matters connected with horse and cattle-breeding, or diseases of horses <sup>and</sup> ~~any~~ cattle. In connection with the Veterinary School to be attached to the Institution 30 stipends of Rs. 5 each to be held by pupils are to be offered, besides a scholarship of Rs. 10 a month founded by Dr. Kenneth McLeod, late of Calcutta. Mr. E. Burke, Veterinary Overseer, Civil Veterinary Department, has been appointed on Veterinary Colonel Hallen's nomination to be Assistant Superintendent. Rules for the admission of students and animals to the Institution have been drawn up and are now under the consideration of Government. Full clinical and other facilities for the instruction of veterinary students will be afforded, and while designed specially for Bengal, the Institution is open to students from all parts of India.

11. The Director has appended to his present Report Veterinary Captain Gunn's account of the work which he has done since his appointment as Superintendent of the Civil Veterinary Department, Bengal, on the 31st May 1892. The Lieutenant-Governor admits that at the commencement of a new undertaking too much must not be expected, but for the future he looks to the Superintendent to suggest and carry out a systematic scheme for the collection of information on subjects within the scope of the Veterinary Department. It is desirable that Veterinary Captain Gunn should acquire experience of the conditions of animal life in this Province, and devote as much of his time as he can spare from his duties in connection with the Bengal Veterinary Institution to thorough investigation in the districts with the object of acquiring and placing on record a stock of useful information which may eventuate hereafter in practical measures being undertaken to the great advantage of the country. Instructions have recently been received from the Government of India for the supply by Provincial Veterinary Officers to the Assistant to the Inspector-General, Civil Veterinary Department, of information regarding animal diseases and cattle breeds in India. In connection with the latter subject, the Superintendent's Report shows that he has suggested to the

Cattle-breeding.

District Boards which he has visited the importation of Burman bulls as a means of improving the breed of cattle in their districts. It is stated that the District Boards of Mymensingh and Tippera have indented for two Burman bulls. The attention of the Superintendent should be drawn to the results reported in paragraph 52 of the Director's Report, which were obtained by the use of the Hissar, English and Bachour bulls for the purpose of breeding; and he should compare them with the results obtained by the use of Burman bulls.

12. It was at one time proposed that experiments on mule-breeding should be conducted by the Political Agent of

Mule-breeding.

Sikkim at the cost of the State, but the proposal was abandoned on the ground that the finances of the State did not justify such expenditure. Since this decision was come to, a circular calling attention to the importance of the subject, and suggesting certain action, has been received from the Government of India; and the Lieutenant-Governor awaits a report from the Director. Veterinary Captain Gunn is mistaken in thinking that any indent has been made by this Government for donkeys for use in Kalimpong and Sikkim.

13. The Superintendent is wrong in supposing that there is only one cattle fair of any importance in the Province, as he will

Horse and Cattle fairs.

doubtless discover for himself when he has been longer in the Province. With reference to his remarks on the Sonapur fair, it may be stated that there are difficulties in the way of effecting the improvements he suggests, as the land on which the fair is held is not under the control

of the District Board, but belongs to private landowners. The local officers will, however, do all they can to improve the arrangements. The Lieutenant-Governor will bring to the notice of the Government of India the remarks made by Veterinary Captain Gunn in connection with the Kalimpong méla.

14. Cattle disease was present in other parts of the province as well as in Darjeeling, though no virulent outbreaks were reported, except from Kalimpong. Veterinary Captain Gunn visited the latter place thrice during the progress of the disease, and his action appears to have been energetic and useful; his services at such times will no doubt be more frequently applied for in the future when the benefits of his presence and advice become better known.

15. The thanks of the Lieutenant-Governor are due to Mr. Macpherson for his efficient supervision of the Department during the year under report. The remarks of the Director regarding his three Assistants, Mr. Nitya Gopal Mukerji, Mr. Bhupal Chandra Basu, and Mr. Nagendra Nath Banerji, all of whom, especially Mr. Basu, rendered good service, will be communicated to the Appointment Department.

ORDER.—Ordered that this Resolution be published in the *Calcutta Gazette*. Ordered also that a copy of the Resolution be submitted to the Government of India, in the Revenue and Agricultural Department, for information, and that a copy be forwarded to the Board of Revenue for information and guidance.

By order of the Lieutenant-Governor of Bengal,

C. E. BUCKLAND,

*Secretary to the Government of Bengal.*

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 23rd December, 1893.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL.</b>			
BUREDWAN DIVN.	1 Burdwan Dec. 23, '93 Nil Kahna ... Nil Katwa ... 8.1 Rangganj ... Nil	Nil	Weather—seasonable. Harvesting of <i>aman</i> continues. <i>Rabi</i> doing well. Water and fodder sufficient. Prices of common rice :— <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> Srs. Burdwan ... 13 to 15½ Kahna ... 10 to 15 Katwa ... 16 Rangganj ... 16 </div> <div style="font-size: 2em; margin: 0 10px;">}</div> <div>per rupee.</div> </div>
	2 Birbhum „ 23, '93 Nil Rampur Hât ... Nil	Nil	Weather—seasonable. Spring crops look well. Price of common rice stationary at 15 to 20 seers per rupee.
	3 Bankura „ 23, '93 Nil	Nil	Weather—seasonably cold. Harvesting of <i>aman</i> all but completed. <i>Rabi</i> excellent. Fodder and water sufficient. Common rice selling at— <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> Srs. Sadar ... 17 Vishnupur ... 17½ </div> <div style="font-size: 2em; margin: 0 10px;">}</div> <div>per rupee.</div> </div>
	4 Midnapore „ 23, '93 Nil	Nil	Weather—cold always with some clouds, but no appearance of rain. Reaping of rice crop is almost finished. Sowing of <i>rabi</i> crops over; prospects good. Prices of common rice <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> Srs. Sadar ... 16 Contai ... 15 to 21 Tamluk ... 11 to 16 Ghatal ... 15 to 16 </div> <div style="font-size: 2em; margin: 0 10px;">}</div> <div>per rupee.</div> </div>
	5 Hooghly „ 23, '93 Nil Serampore ... Nil Jahannabad ... Nil	Nil	Weather—seasonable. Harvesting of <i>aman</i> progressing briskly. Prospects of <i>rabi</i> good. Fodder and water-supply sufficient. Prices of common rice :— <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> Srs. Sadar ... 12 to 13 Serampore ... 10 to 14 Jahannabad ... 11 to 14 </div> <div style="font-size: 2em; margin: 0 10px;">}</div> <div>per rupee.</div> </div>
	6 Howrah „ 23, '93 Nil Ulubaria ... Nil	Nil	Weather—seasonable. Harvesting of winter rice continues. Sugarcane and spring crops doing well. Condition of cattle good. Fodder and water-supply sufficient. Price of rice 10 to 14 seers per rupee.
	7 24 Parganas	...	Report not received.
	8 Nadia „ 23, '93 Nil Kushtia ... Nil Meherpur ... Nil Chuadanga ... Nil Ranaghat ... Nil	Nil	Weather—cool. Harvesting of <i>aman</i> going on. Prospects of <i>rabi</i> crops good. Price of common rice slightly fallen. Fodder and water sufficient.
	9 Murshidabad „ 23, '93 Nil	Nil	Weather—getting cold. Harvesting of <i>aman</i> paddy still going on. Sowing of <i>rabi</i> crops finished. Prospects of crops good. Fodder sufficient. Common rice sells at 13 seers per rupee.
	10 Jessore „ 23, '93 Nil Jhenida ... Nil Magura ... Nil Narail ... Nil Bangaon ... Nil	Nil	Weather—seasonable. Harvesting of <i>aman</i> still going on; outturn short. Prospects of winter crops fair. No cattle-disease reported. Fodder and water sufficient. Price of rice stationary.
	11 Khulna „ 23, '93 Nil Bagerhat ... Nil Satkhira ... Nil	Nil	Weather—seasonable. Harvesting of <i>aman</i> is vigorously going on. Prospects of winter crops good. Common rice selling at about 12 seers per rupee. Fodder and water sufficient.
<b>PRESIDENCY DIVN.</b>			

No.	District and date of return.		Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.	
BENGAL—concd.					
RAJSHAHI DIVN.	12	Rajshahi Nator Naugaon	Dec. 23, '93 ... ...	Nil Nil Nil	Weather—seasonable and cold. Crops are in a very satisfactory condition. Fodder and water-supply ample. No cattle-disease. Rice selling from 12 to 18 seers per rupee.
	13	Dinajpur Thakurgaon	„ 23, '93 ...	Nil Nil	Weather—cold. Rice is being harvested; the crop has been a bumper one. Potatoes coming out. Condition of cattle good. Fodder and drinking water ample.
	14	Jalpaiguri	„ 23, '93	Nil	Weather—fine and cool. <i>Haimanti</i> -paddy is still being harvested. Potato doing well. Common rice sells from 13 to 14 seers per rupee. Fodder and water-supply sufficient.
	15	Darjeeling Siliguri	„ 23, '93 ...	Nil Nil	Weather—bright and cool. <i>In the hills</i> :— <i>Murua</i> , <i>phaphur</i> and <i>aghani</i> rice being harvested. <i>Torce</i> and barley progressing favourably. Prospects good. <i>In the Terai</i> : Harvesting of winter rice in full swing. Other crops doing well. Mustard in flower. Prices of coarse rice:— Hills                   ...                   ...                   8 to 12 } Terai                   ...                   ...                   12 to 13 } per rupee.
	16	Rangpur Gaibanda Kurigaon Nilphamari	„ 23, '93 ... ... ...	Nil Nil Nil Nil	Weather—fine and cool. Prospects of crops continue good. Harvesting of <i>aman</i> and sowing of <i>rabi</i> crops nearly finished. Fodder sufficient. Price of rice stationary.
	17	Bogra	„ 23, '93	Nil	Weather—seasonable. <i>Rabi</i> crops doing well. Cutting of <i>aman</i> almost finished. Rice selling at 15 seers per rupee. Fodder and water sufficient.
DACCA DIVN.	18	Pabna	„ 23, '93	Nil	Weather—seasonable. <i>Aman</i> paddy is being harvested. Price of common rice in the Sirajganj subdivision Rs. 3 4 per maund and 11 seers per rupee in the Sadar subdivision. Fodder and water-supply sufficient.
	19	Dacca	„ 23, '93	Nil	Weather—seasonable. Harvesting of <i>aman</i> paddy going on. Prospects fair. Mustard, <i>mug</i> and <i>kalai</i> doing well. Common rice selling from 8 to 11 seers per rupee. Fodder available. No cattle-disease.
	20	Mymensingh	„ 23, '93	Nil	Weather—seasonable. Prospects of standing crops good. Harvesting of <i>aman</i> paddy going on. Common rice is selling from 8 to 12 seers per rupee. Supply of fodder sufficient.
	21	Faridpur Goalundo Madaripur	„ 23, '93 ... ...	Nil Nil Nil	Weather—seasonable. <i>Aman</i> harvest finished except in the south. <i>Rabi</i> crops doing well. Common rice sells from 11 to 13 seers per rupee. No cattle-disease. Fodder plentiful.
CHITTAGONG DIVN.	22	Backergunge	„ 23, '93	Nil	Weather—seasonable. State and prospects of crops fair. Common new rice sells from 11 to 13 seers per rupee. Fodder and water sufficient.
	23	Chittagong	„ 23, '93	Nil	Weather—seasonable, though sometimes cloudy. <i>Aman</i> being harvested. Sowing and transplantation of cold weather crops continue. Prospects fair. Prices steady. Water and fodder sufficient.
	24	Noakhali	„ 23, '93	Nil	Weather—seasonable. State and prospects of standing crops good. No cattle-disease. Fodder and water sufficient. Price of common rice going down.
	25	Tippers	„ 23, '93	Nil	Weather—seasonable. <i>Aman</i> being reaped; full 10-anna outturn expected. Prospects of <i>boro</i> paddy good. No cattle-disease. Fodder deficient in north of district. Rice selling from 10 to 12 seers per rupee.
	26	Chittagong Hill Tracts.	„ 22, '93	Nil	Weather—seasonable. Harvesting of late plough-paddy going on. Vegetables selling in the bazar. Condition of cattle generally good. Common rice sells at 9½ seers per rupee.

No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.
<b>BIHAR.</b>			
27	Patna Dec. 23, '93	Nil	Weather—clear and cold. Harvesting of paddy continues. Prospects of <i>rabi</i> and poppy so far favourable. Prices of common rice:— Srs. 21 } per rupee. Sadar ... .. Bihar ... ..
28	Gaya .. 23, '93 Jahanabad ... Aurangabad ... Nawada ..	Nil Nil Nil Nil	Weather—cold and clear. Harvesting of paddy and pressing of sugarcane going on. Prospects of <i>rabi</i> good. Fodder and water-supply for cattle sufficient. Prices of food-grains stationary
29	Shahabad .. 23, '93	Nil	Weather—seasonable. Prospects favourable. Harvesting of winter rice continues
30	Saran .. 23, '93 Siwan ... Gopalganj ..	Nil Nil Nil	Weather—seasonable. Prospects of all crops, including poppy, good. Sugarcane pressing going on. Water and fodder plentiful. Prices of common rice:— Srs. 16 } per rupee. Chapra ... .. Siwan ... .. Gopalganj ... ..
31	Champaran .. 23, '93	Nil	Weather—fine and seasonable. Harvesting of paddy in progress. <i>Rabi</i> sowings going on in the area affected by floods. Poppy doing well both at Sadar and Bettiah. Prospects favourable. Fodder and water sufficient for cattle. Prices stationary.
32	Muzaffarpur .. 23, '93	Nil	Weather—cold and fair. Standing crops promising well. Sowing of <i>rabi</i> completed. Harvesting of paddy continues in places. New rice coming into the market. Cattle disease to some extent reported from Bela outpost in Sitamarhi subdivision. Fodder and water sufficient.
33	Darbhanga .. 23, '93	Nil	Weather—fair and seasonable. Harvesting of rice nearly finished. Prospects of <i>rabi</i> , <i>rahar</i> and tobacco continue favourable. Poppy doing well. There is a sufficiency of fodder and water-supply. Ordinary rice sells from 16 to 17 seers per rupee.
34	Monghyr .. 23, '93 Begusarai ... Jamui ...	Nil Nil Nil	Weather—very cold. <i>Rabi</i> sowings nearly completed. Winter rice is being harvested; outturn estimated to be about 16 annas. All standing crops doing well. Prospects of indigo good. Fodder and water sufficient. Prices of common rice (new):— Srs. 15 to 20 } per rupee. Sadar ... .. Begusarai ... .. Jamui ... ..
35	Bhagalpur .. 23, '93 Banka ... Mudhipura ... Sipaul ..	Nil Nil Nil Nil	Weather—normal. The <i>kharij</i> has now been harvested; results above the average all round. <i>Rabi</i> crops are thriving; but rain would benefit the young wheat and barley. Prices falling. Common rice 18 seers 15 chittacks per rupee.
36	Purnea .. 23, '93 Kishanganj ... Araria ...	Nil Nil Nil	Weather—seasonable. <i>Aghani</i> being cut and threshed. Pressing of sugarcane going on. <i>Rabi</i> crops promise well. No cattle disease. Fodder and water sufficient. New rice is selling at 15 seers per rupee.

PATNA DIVISION.

BHAGALPUR DIVISION.



No.	District and date of return.	Rainfall at Sadar Station in inches.	Character of the weather and state and prospects of the crops.																														
BIHAR—conold.																																	
BHAGALPUR DIVN.— <i>conold.</i>	87 Malda Dec. 23, '93	Nil	Weather—cold and clear. Harvesting of winter rice still going on. <i>Kalai</i> coming to maturity. Prospects of <i>rabi</i> crops favourable. Common rice sells from 13 to 21 seers per rupee. Fodder and water ample.																														
	88 Sonthal Parganas .. 23, '93	Nil	Weather—seasonable. Harvesting of paddy continues. Standing crops doing well. Price of common rice (new) 15 to 20 seers per rupee. Fodder and water sufficient.																														
	Deoghur ...	Nil																															
	Godda ...	Nil																															
	Jamtara ...	Nil																															
	Pakur ...	Nil																															
Rajmahal ...	Nil																																
ORISSA.																																	
ORISSA DIVN.	39 Cuttack .. 23, '93	Nil	Weather—seasonable. <i>Sarad</i> harvest in progress. <i>Mug</i> doing well. Prices of common rice :—																														
	40 Puri ...		<table><tr><td></td><td>Sadar</td><td>...</td><td>...</td><td>Srs. C.</td><td>Srs. C.</td></tr><tr><td></td><td>Jajpur</td><td>...</td><td>...</td><td>10</td><td>8 to 16</td></tr><tr><td></td><td>Kendrapara</td><td>...</td><td>...</td><td>13</td><td>2 to 18</td></tr><tr><td></td><td>Banki</td><td>...</td><td>...</td><td>15</td><td>0 to 21</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>21</td></tr></table> } per rupee.		Sadar	...	...	Srs. C.	Srs. C.		Jajpur	...	...	10	8 to 16		Kendrapara	...	...	13	2 to 18		Banki	...	...	15	0 to 21						21
		Sadar	...	...	Srs. C.	Srs. C.																											
	Jajpur	...	...	10	8 to 16																												
	Kendrapara	...	...	13	2 to 18																												
	Banki	...	...	15	0 to 21																												
					21																												
41 Balasore .. 23, '93	Nil	Report not received																															
CHOTA NAGPUR																																	
South-West Frontier Agency.																																	
CHOTA NAGPUR DIVN.	42 Hazaribagh Dec. 23, '93	Nil	Weather—seasonable. Harvesting of paddy completed; outturn excellent everywhere. Sowing of poppy practically completed, and the crop is very promising. Fodder and water sufficient. Common rice selling from 14 to 20 seers per rupee.																														
	Giridi ...	Nil																															
	43 Lohardaga .. 23, '93	Nil	Weather—seasonable. Harvesting of winter rice finished. Common rice selling at 18 seers per rupee. Fodder and water sufficient.																														
	44 Palamanu .. 22, '93	Nil	Weather—seasonable. Paddy harvesting nearly at an end. <i>Rabi</i> sowing finished. <i>Arhar</i> and mustard promising. Sugarcane pressing commenced. Prices stationary. Fodder sufficient.																														
	45 Singhbhum .. 23, '93	Nil	Weather—clear and cold. Harvesting of paddy continues with full outturn. <i>Rahar</i> pulse also being harvested with 16 annas outturn. Cotton 8 to 10 annas outturn. Price of rice from 16 to 21 seers per rupee.																														
46 Manbhum .. 23, '93	Nil	Weather—bright and cold. Prospects of crops very good. Harvesting of rice nearly finished. Rice selling from 15 to 20 seers per rupee. Fodder and water sufficient.																															
Gobindpur ...	Nil																																

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 26th December, 1893.

C. E. BUCKLAND,  
Secy. to the Govt. of Bengal.

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.											
			AIR PRESSURE.				WIND.		TEMPERATURE.					
			Mean barometric height, S. A. W. reduced to 32°.	Mean reduced to sea-level and constant gravity, at 45°.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest.	Date.	Lowest.	Date.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.
ORISSA.	Puri	Gopalpore ...	30.110	30.015	—	N	113	79.6	18th & 20th Dec.	59.6	18, 19, 22 & 23 Dec.	78.9	60.4	69.5
		Pulse Point ...	30.107	30.060	+0.024	NNW	237	79.7	17th ..	57.1	18th ..	78.4	58.5	68.5
		...	30.114	30.078	+0.032	NNW	111	77.4	17 & 21 ..	54.0	19th ..	76.4	55.0	65.7
	Cuttack ...	Cuttack ...	30.051	30.078	+0.031	Calm	31*	81.8	17th ..	55.9	18 & 19 ..	79.9	56.8	68.3
	Balasore ...	Balasore ...	30.080	30.085	+0.004	Nly	73	79.3	17th ..	51.5	18 & 19 ..	77.3	52.8	65.0
SOUTH-WEST BENGAL.	Midnapore ...	Midnapore ...	29.998	30.103	+0.038	N	42	78.3	17 & 23 ..	52.3	18 to 20 ..	77.0	53.2	65.1
	24-Parganas ...	Calcutta ...	30.115	30.081	+0.028	Nly	24	76.2	23rd ..	53.2	17 & 19 ..	74.7	54.3	64.5
		Saugor Island ...	30.107	30.077	+0.032	NEly	213	76.2	17 & 23 ..	53.8	17th ..	74.8	55.6	65.2
	Howrah Hooghly ...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Nadia ...	Krishnagar ...	30.089	30.088	+0.041	NNW	53	77.1	22nd ..	50.1	18th ..	75.9	52.5	64.4
	Khulna Jessore ...	Jessore ...	30.093	30.074	+0.033	Calm & NNW	35	77.6	22 & 23 ..	52.0	20th ..	76.1	53.7	64.9
	Burdwan ...	Burdwan ...	30.042	30.093	+0.040	Calm	35	76.7	23rd ..	53.5	18th ..	75.7	55.0	65.5
		Raniganj ...	29.814	30.121	+0.049	NNW	32	76.4	17th ..	50.9	19th ..	74.6	52.2	63.4
	Bankura ...	Bankura ...	29.815	30.080	+0.031	Calm	35	77.3	17th ..	50.5	18th ..	75.7	52.4	64.1
	Birbhum Murshidabad ...	Berhampore...	30.076	30.095	+0.036	NWly	36	75.6	21st ..	53.5	18th ..	74.5	54.9	61.7
NORTH BENGAL.	Pabna ...	Sirajganj ...	30.076	30.074	+0.033	Calm	17	77.3	23rd ..	48.9	18th ..	75.8	51.5	63.7
	Bogra ...	Bogra ...	30.062	30.079	+0.003	NE	30	76.9	22nd ..	49.2	17 & 19 ..	75.5	51.0	63.3
	Rajshahi ...	Ranpur Bonga ...	30.063	30.086	+0.050	N	102	76.3	23rd ..	49.1	18th ..	74.7	50.2	62.5
	Malda ...	Malda ...	30.065	30.102	—	NW	61	75.9	22nd ..	49.3	22nd ..	74.7	50.0*	64.3*
	Dinajpur ...	Dinajpur ...	30.024	30.110	+0.056	NE	3	76.1	22 & 23 ..	48.5	23rd ..	75.0	50.1	62.6
	Rangpur ...	Rangpur ...	30.024	30.100	+0.037	ENE	22	75.6	23rd ..	46.1	23 d ..	74.4	48.8	61.6
	Jalpaiguri Kuch Bihar ...	Jalpaiguri* ...	29.867	30.123	+0.056	N	31	75.4	22 & 23 ..	48.1	17th ..	74.5	49.1	61.8
	Darjeeling Sikkim ...	Darjeeling ...	23.060	—	+0.048	E	68	55.4	23rd ..	35.7	24th ..	50.8	37.8	44.5
	...	Guntong ...	18.916	—	—	SE	75	46.4	22nd ..	18.1	17th ..	41.2	22.1	31.7
	Chittagong ...	Chittagong ...	30.024	30.063	+0.033	NEly	*57	77.7	21st ..	54.1	17th ..	78.2	56.3	67.3
EAST BENGAL.	Chittagong Hill Tracts ...	Demagiri ...	...	...	...	...	...	No observations received.						
	Backergunge ...	Batatal ...	30.095	30.054	+0.042	Calm	37	78.3	22 & 23 Dec.	52.5	19th ..	76.9	54.7	65.8
	Noakhali ...	Noakhali ...	...	...	...	...	...	...	...	...	...	...	...	...
	Faridpur ...	Faridpur ...	30.093	30.079	+0.039	Calm	22	74.0	22nd ..	52.5	19th ..	73.5	53.8	63.7
	Dacca ...	Dacca ...	30.093	30.062	+0.029	N & NNE	78	81.1	22nd ..	53.3	17th ..	78.7	55.0	66.9
	Tippera ...	Comilla ...	30.079	30.061	+0.035	Calm	28	79.4	21 to 23 ..	51.6	17th ..	78.5	53.2	65.9
	Mymensingh ...	Mymensingh ...	30.068	30.083	+0.046	ENE	36	76.3	23rd ..	49.1	18th ..	75.3	52.0	63.7
	Purnea ...	Purnea ...	30.014	30.103	+0.039	Calm	15	74.2	22nd ..	48.3	18, 21 & 23 ..	72.9	49.0	61.0
	Bhagalpur ...	Bhagalpur ...	29.976	30.099	+0.032	Calm	3	75.3	17 to 22 ..	47.0	18th ..	74.4	48.4	61.5
	Darbhanga ...	Darbhanga ...	29.985	30.116	+0.036	Variable	27	74.6	23rd ..	51.9	18th ..	73.3	52.5	62.9
NORTH BIHAR.	Muzaffarpur ...	Muzaffarpur ...	29.981	30.125	—	Calm	22	73.7	22 & 23 ..	48.3	18th ..	72.4	50.9	61.2
	Champaran ...	Motibari ...	29.912	30.119	+0.046	SE	52	73.2	23rd ..	43.9	21st ..	75.3	45.9	60.7
	Baran ...	Chapra ...	29.970	30.125	+0.074	Calm	31	74.3	17th ..	48.7	19th ..	73.1	49.7	61.4
	Shahabad ...	Dehri ...	29.911	30.139	+0.051	SW	73	75.3	17 & 21 ..	50.6	17th ..	74.1	51.5	62.8
		Buxar ...	29.912	30.122	+0.035	SWly	43	75.6	17th ..	48.4	18th ..	73.5	50.3	61.9
	...	Arrah ...	29.961	30.117	+0.068	NW	27	75.1	17th ..	47.7	22nd ..	73.8	48.3	61.3
	Gaya ...	Gaya ...	29.973	30.127	+0.039	SEly	140	75.5	17 22 & 23 ..	49.1	17th ..	73.3	50.8	63.0
	Patna ...	Bankipore ...	29.968	30.110	+0.023	Variable	30	73.7	23rd ..	48.4	18th ..	72.5	51.4	62.0
	Monghyr ...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Sonhal Parganas ...	Naya Dumka ...	29.935	30.119	+0.045	NNW	51	75.5	17th ..	48.1	18th ..	74.0	50.4	62.2
CHOTA NAGPUR.	Hazaribagh ...	Hazaribagh ...	28.653	30.104	+0.014	Variable	89	72.4	23rd ..	46.2	18th ..	70.7	48.0	59.6
	Lohardaga ...	Ranchi ...	27.929	30.099	+0.025	Calm	74	71.0	17th ..	40.6	18th ..	69.8	49.2	59.6
	Palamau ...	Daltonganj* ...	27.923	30.157	—	NW	27	74.9	20th ..	44.0	18th ..	73.7	45.2	59.4
	Singbhum Manbhum ...	Chaibassa ...	29.350	30.106	+0.049	Calm	13	78.8	17th ..	49.2	18th ..	76.4	50.0	63.2
	...	...	...	...	...	...	...	...	...	...	...	...	...	...

\* Means of 6 days.

*Explanation.—Summary*—The normal means of air pressure and temperature are the arithmetical average or means of the readings during the same period. The humidity of the atmosphere is expressed in percentage, saturated air being represented by 100. A clear sky is denoted by 0 and an overcast sky by 10. The normal means are the numerical means or averages of the rainfall in that district determined from the returns sent in by the subdivisional stations. The normal means of the total rainfall at the subdivisional stations in the district sending in returns divided by the number of stations. A rainy day is one of

for the week ending Saturday, the 23rd of December 1893.

DISTRICT OBSERVATIONS.														
Variation from normal mean.	Mean 8 A.M., temperature.	Average humidity at 8 A.M.	Average cloud amount at 8 A.M.	Rainfall of week at observing station.	OF WEEK.				RAINFALL.					
					Mean for district.	Normal mean.	Average number of rainy days.	Normal number of rainy days.	Since 1st of month.			Since 16th October 1893.		
									Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.
-	63.0	72	0.6	Nil	Nil	0.18	0.00	0.17	Nil	0.05	-0.05	6.83	7.59	
-1.1	61.9	81	0.3	Nil										
-0.3	62.7	82	3.9	Nil										
-1.1	62.1	72	0.9	Nil	Nil	0.13	0.00	0.11	Nil	0.38	-0.58	4.29	4.83	-0.63
+1.2	68.0	86	0	Nil	Nil	0.08	0.00	0.09	Nil	0.27	-0.27	4.21	3.31	+0.90
-0.6	60.4	71	0.6	Nil	Nil	0.08	0.00	0.08	Nil	0.29	-0.29	3.32	3.64	-0.32
-0.5	59.5	81	0.1	Nil	Nil	0.06	0.00	0.14	Nil	0.39	-0.30	2.44	3.54	-1.10
-1.1	60.3	91	3.4	Nil										
					Nil	0.07	0.00	0.03	Nil	0.31	-0.31	2.38	2.48	-0.10
					Nil	0.07	0.00	0.11	Nil	0.26	-0.26	2.81	2.56	+0.25
-0.8	59.6	82	1.0	Nil	Nil	0.04	0.00	0.08	Nil	0.13	-0.13	1.47	2.24	-0.77
					Nil	0.03	0.00	0.09	Nil	0.33	-0.33	2.19	3.47	-1.28
-0.5	59.0	88	0	Nil	Nil	0.05	0.00	0.13	Nil	0.24	-0.24	0.95	2.80	-1.85
-0.2	58.8	75	0	Nil	Nil	0.05	0.00	0.08	Nil	0.18	-0.18	2.05	2.27	-0.21
-1.6	57.7	79	0	Nil										
-1.2	57.4	79		Nil	Nil	0.12	0.00	0.15	Nil	0.28	-0.28	2.21	2.47	-0.26
-0.1	57.6	91	0.3	Nil	Nil	0.03	0.00	0.07	Nil	0.13	-0.13	1.76	2.14	-0.38
					Nil	0.03	0.00	0.09	Nil	0.15	-0.15	1.83	2.29	-0.46
-0.6	58.0	92	0	Nil	Nil	0.01	0.00	0.05	Nil	0.10	-0.10	3.17	2.64	+0.53
-1.9	57.7	84	0	Nil	Nil	0.02	0.00	0.07	0.05	0.15	-0.10	4.06	2.11	+1.95
-0.3	58.6	84	0	Nil	Nil	0.01	0.00	0.06	Nil	0.12	-0.12	2.74	1.83	+0.91
-	57.0	86	0	Nil	Nil	0.02	0.00	0.09	Nil	0.10	-0.10	3.13	1.60	+1.53
-0.3	57.2	81	0	Nil	Nil	0.02	0.00	0.08	Nil	0.16	-0.16	2.81	1.58	+1.23
-0.9	55.6	88	0	Nil	Nil	0.03	0.00	0.09	Nil	0.18	-0.18	1.79	2.24	-0.45
-1.0	55.2	83	0.7	Nil	Nil	0.04	0.00	0.05	0.39	0.10	+0.29	3.09	3.11	-0.02
					Nil	0.05	0.00	0.12	0.52	0.16	+0.36	4.34	2.02	+2.32
+2.6	41.4	51	0	Nil	Nil	0.14	0.00	0.28	0.53	0.25	+0.28	6.38	2.06	+4.32
-	33.0	85	0	Nil										
+0.4	61.4	91	2.3	Nil	Nil	0.05	0.00	0.08	0.04	0.57	-0.53	6.18	5.61	+0.57
					Nil	0.03	0.00	0.15	Nil	0.56	-0.56	5.31	4.70	+0.61
+1.2	61.8	88	0	Nil	Nil	0.03	0.00	0.09	0.03	0.43	-0.40	5.30	3.03	+1.97
					Nil	0.04	0.00	0.10	0.01	0.82	-0.81		5.13	
-0.8	59.5	91	0	Nil	Nil	0.02	0.00	0.09	0.01	0.14	-0.13	1.07	2.55	-0.88
+0.1	60.0	84	0.1	Nil	Nil	0.03	0.00	0.12	Nil	0.23	-0.23	3.00	2.97	+0.03
+0.6	62.4	82	0.6	Nil	Nil	0.03	0.00	0.19	0.01	0.34	-0.37	3.69	3.11	+0.49
-0.1	56.9	90	0.1	Nil	Nil	0.02	0.00	0.05	0.04	0.15	-0.11	3.72	2.92	+0.80
-0.2	51.9	92	0	Nil	Nil	0.02	0.00	0.05	Nil	0.12	-0.12	2.67	1.70	+0.97
+0.1	55.6	89	0	Nil	Nil	0.03	0.00	0.06	Nil	0.08	-0.08	2.51	1.51	+1.00
+0.1	55.7	90	0	Nil	Nil	0.03	0.00	0.07	Nil	0.07	-0.07	6.03	1.07	+4.96
-	55.0	94	0	Nil	Nil	0.05	0.00	0.10	Nil	0.09	-0.09	7.54	1.25	+6.29
-0.1	53.5	93	0	Nil	Nil	0.08	0.00	0.11	Nil	0.17	-0.17	8.62	0.67	+7.95
-0.2	56.1	86	0	Nil	Nil	0.07	0.00	0.12	Nil	0.14	-0.14	5.96	1.13	+4.73
?	58.1	86	0	Nil										
+0.7	58.2	77	0.1	Nil	Nil	0.09	0.00	0.11	Nil	0.27	-0.27	6.25	1.60	+4.65
+0.4	54.5	88	0	Nil										
+0.8	55.3	78	1.1	Nil	Nil	0.06	0.00	0.08	Nil	0.18	-0.18	2.53	1.19	+1.34
+0.3	56.3	83	0	Nil	Nil	0.04	0.00	0.05	Nil	0.12	-0.12	4.49	1.50	+2.99
					Nil	0.04	0.00	0.05	Nil	0.07	-0.07	1.71	1.88	+0.13
-0.1	55.1	82	0	Nil	Nil	0.04	0.00	0.10	Nil	0.10	-0.01	2.43	1.78	+0.65
-0.1	56.3	75	0	Nil	Nil	0.14	0.00	0.15	Nil	0.26	-0.26	3.57	1.72	+1.85
+0.3	56.5	73	0.1	Nil	Nil	0.25	0.00	0.18	0.01	0.39	-0.38	3.36	2.06	+1.30
-	56.0	77	0	Nil	Nil	0.12	0.00	0.25	Nil	0.16	-0.16	2.34	1.57	+0.77
-0.5	55.7	82	0.7	Nil	Nil	0.16	0.00	0.20	Nil	0.37	-0.37	0.87	2.44	-1.57
					Nil	0.08	0.00	0.10	0.01	0.20	-0.19	1.94	1.67	+0.27

for the last ten years. The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater. The numbers denoting cloud amount represent the part of the sky covered the whole sky being denoted by 10. Under the head District observations of for the period in question during the past ten years. The means of the district are the numerical average of the rainfall returned received in the which at least a tenth of an inch fell.







SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL FOR THE WEEK ENDING 8 A.M., SATURDAY  
THE 23RD OF DECEMBER 1893.

The meteorology of the week under review has again been of little importance, and calls for no detailed review, for conditions have been of fine settled north-east monsoon character throughout the period. On the 17th of December, or the first day of the week, pressure was decidedly high, and was above the normal by amounts ranging from 0.04 inch at the southern and south eastern stations to 0.06 inch and 0.07 inch in the north and west of the province. The differences of pressure were hence a little larger than usual, and the northerly winds which were blowing were fairly strong. The mean temperature was in defect of the normal at almost all stations in the province, the usual defect falling from 1° to 2°. Skies were almost cloudless throughout the province, and no rain was reported. The changes of temperature and pressure from day to day during the week have been small, and their general effect has been to make temperature somewhat higher and pressure somewhat lower than at its commencement. Indeed, on the 22nd and 23rd, the mean temperature had become in slight excess of the normal, while on the 23rd pressure was almost normal over the province. Throughout the whole week, however, a steady northerly wind current has been blowing, skies have been almost cloudless, and no rain has been reported from any station in the province.

*Pressure.*—The mean pressure for the week has hence been in small excess, and this excess has been largest at the northern and western stations, and smallest at the southern and south-eastern stations. Thus excess pressures of about 0.05 inch and 0.06 inch have been registered at many stations in North Bengal and at some in Bihar, while at Calcutta the excess has equalled 0.028 inch, at Gopalpur 0.024 inch, and at Chittagong 0.033 inch. The general excess for the whole province has equalled about 0.04 inch.

*Temperature.*—Was in small defect for all except the last few days of the week, when slight excess amounts were recorded. The variation of the mean temperature of the week from the normal has therefore been small, and for the whole province the average defect only equals about a fifth of a degree, while the main defect has been confined to South-West and North Bengal, where the defect has been more than half a degree. On the other hand, slight excess average temperatures for the week have been recorded in South Bihar and East Bengal.

The actual temperatures registered during the week and their variations from the usual temperature for the present season are most clearly seen in the table below, where the average maximum, minimum and mean temperatures for the week at nine typical stations in different districts of the province are compared with the normal values for the same period. The variations it will be seen have been small in both the night and day temperatures.

Table showing the excess or defect of the actual mean temperature from the normal for the week ending Saturday, the 23rd of December 1893.

	Normal mean maximum temperature for the week ending 23rd December.	Actual mean maximum temperature for the week ending 23rd December 1893.	Variation of actual mean from the normal.	Normal mean minimum temperature for the week ending 23rd December.	Actual mean minimum temperature for the week ending 23rd December 1893.	Variation of actual mean from the normal.	Normal mean daily temperature for the week ending 23rd December.	Actual mean daily temperature for the week ending 23rd December 1893.	Variation of actual mean from the normal.
Cuttack	81.6	79.0	-1.7	57.3	56.8	-0.4	69.4	68.3	-1.1
Calcutta	75.1	74.7	-0.4	54.9	54.4	-0.6	65.0	64.5	-0.5
Dacca	77.6	78.7	+1.1	56.0	55.0	-1.0	66.8	66.9	+0.1
Bardwan	76.8	75.7	-1.1	54.5	53.0	-1.5	65.7	65.5	-0.2
Patna	78.0	73.5	-4.5	49.7	51.4	+1.7	61.3	62.0	+0.7
Gaya	74.3	75.2	+0.9	50.2	50.8	+0.6	62.3	63.0	+0.7
Purnea	74.9	72.9	-2.0	47.8	49.0	+1.2	61.4	61.0	-0.4
Hazaribagh	70.3	70.7	+0.4	49.0	48.6	-0.4	59.7	59.6	-0.1
Darjeeling	47.0	50.8	+3.8	35.8	37.8	+2.0	41.9	44.5	+2.6

*Rain fall.*—The whole province has been rainless throughout the week.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Saturday, the 23rd of December 1893:—

METEOROLOGICAL DIVISIONS.	Highest observed during week.	TEMPERATURE.						RAINFALL.									
		Lowest observed during week.	Averages for week.				Average mean of week above or below normal mean of week.	Of week.			Rainy days.	Since 1st of month.		Since 16th Oct, 1893.			
			If highest of each day.	If lowest of each day.	Of mean for each day	Average.		Normal average.	Variation.	Average.		Normal average.	Average.	Normal average.			
Cuttack	81.8	51.5	78.2	56.6	67.1	-0.3	Nil	0.12	0.12	0.00	0.12	-0.12	Nil	0.56	5.43	1.69	
South-West Bengal	78.3	50.1	75.4	53.8	64.6	-0.7	Nil	0.06	-0.06	0.00	0.10	-0.10	Nil	0.21	2.94	2.67	
North Bengal	77.3	46.1	74.9	50.1	62.5	-0.8	Nil	0.03	-0.03	0.00	0.08	-0.08	0.01	0.15	3.06	2.02	
East Bengal	81.1	43.1	76.8	54.2	65.6	1.2	Nil	0.05	-0.05	0.00	0.09	-0.09	0.01	0.34	4.18	3.51	
North Bihar	75.3	43.9	73.2	49.3	61.3	-0.1	Nil	0.04	-0.04	0.00	0.08	-0.08	Nil	0.19	5.25	1.29	
South Bihar	75.6	47.7	73.9	50.5	62.2	1.1	Nil	0.05	-0.05	0.00	0.09	-0.09	Nil	0.19	3.56	1.57	
Chota Nagpur	78.8*	46.2*	72.3*	49.3*	63.5*	-0.1*	Nil	0.15	-0.15	0.00	0.16	-0.16	Nil	0.27	2.21	1.66	

\* Daltonganj not included.

METEOROLOGICAL OFFICE, BENGAL,  
The 26th December 1893.

A. PEDLER,  
Meteorological Reporter to the Govt. of Bengal.

### Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 17th to 23rd December 1893

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Faint.	TEMPERATURE.					HYGROMETRY.				Rainfall, past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1893.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
December	17th	30.185	61.9	74.9	20.0	51.9	68.6	60.7	.427	54.6	61	Nil
"	18th	.118	63.6	74.3	21.4	52.9	68.6	59.7	.396	53.1	56	"
"	19th	.132	64.0	74.9	21.8	53.1	67.1	61.7	.479	57.8	70	"
"	20th	.141	65.0	75.5	21.1	54.4	69.6	62.7	.478	57.7	66	"
"	21st	.134	66.2	76.9	21.4	55.5	70.1	62.7	.470	57.2	64	"
"	22nd	.161	67.3	77.7	20.8	56.9	71.6	63.6	.483	58.0	62	"
"	23rd	.119	65.6	76.1	21.7	54.7	69.6	61.7	.445	55.7	61	"

The mean 10 A.M. pressure of the seven days ... 30.142  
Inches.

The mean temperature of the seven days ... 65.2

The extreme variation of temperature ... 24.8

The maximum temperature ... 77.7

The mean 10 A.M. relative humidity of the seven days ... 63

The total fall of rain from 17th to 23rd December 1893 ... Nil

The daily mean temperatures are the crude means of maximum and minimum temperatures.

C. LITTLE,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA,  
The 25th December 1893.



## Results of the Meteorological Observations taken at the Alipore Observatory from 17th to 23rd December 1893.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Falt.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	W.S. recorded.		
		°		Inches.	°	°	°	°	°	Inches	°	%			Inch	
Dec.	17th	127.3	9.0	30.085	63.6	71.4	21.1	53.3	58.2	0.119	54.0	73	NNW and calm ...	50	Nil	Clear, ☀.
"	18th	122.3	8.9	30.057	62.8	72.8	19.3	53.5	57.6	0.109	53.4	73	NNE and calm ...	31	"	Chiefly clear, ☀.
"	19th	125.7	7.3	30.068	62.5	73.6	20.3	53.3	57.7	0.118	54.0	75	NNW and calm ...	12	"	Day clear, night partially cloudy, ☀, ☁.
"	20th	133.5	7.6	30.061	61.7	74.5	20.0	54.5	58.7	0.132	54.8	75	NNE and calm ...	17	"	Day clear, night partially cloudy, ☀.
"	21st	132.7	8.1	30.051	61.5	75.5	20.9	54.6	59.4	0.113	55.6	75	NNE and calm ...	27	"	Chiefly clear, ☀.
"	22nd	136.5	8.7	30.070	65.8	76.0	20.1	55.9	60.1	0.177	56.1	71	NNE and calm ...	20	"	Chiefly clear, ☀.
"	23rd	128.0	9.1	30.02	63.9	75.1	20.6	54.5	59.2	0.113	55.6	71	NNW and calm ...	22	"	Clear, ☀, ☁.

The mean pressure of the seven days ...	...	Inches.
The average pressure of the corresponding period for 24 years, Surveyor-General's Office ...	...	30.061
The total number of hours of bright sunshine ...	...	Hours.
The maximum possible number of hours of sunshine ...	...	58.9
The mean temperature of the seven days ...	...	63.8
The average temperature of the corresponding period for 24 years, Surveyor-General's Office ...	...	67.4
The extreme variation of temperature ...	...	22.7
The maximum temperature ...	...	76.0
The highest velocity of the wind in one hour ...	...	Miles.
The mean relative humidity ...	...	71
The average relative humidity of the corresponding period for 24 years, Surveyor-General's Office ...	...	71
The total fall of rain from 17th to 23rd December 1893 ...	...	Inches.
The average fall of the corresponding period for 24 years, Surveyor-General's Office ...	...	Nil
The total fall from 1st January to 23rd December 1893 ...	...	85.23
The average fall of the corresponding period for 24 years, Surveyor-General's Office ...	...	65.23

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

☀, dew; ☁, fog.

## CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 16th December 1893, as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 16TH DECEMBER 1893.			WEEK ENDING SATURDAY, THE 17TH DECEMBER 1892.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ...	783	42,045	498	1,539	1,19,300	1,733
Jute ...	217	1,18,460	1,914	430	2,37,975	4,127
Firewood ...	121	81,345	1,236	81	48,175	715
Other articles ...	848	1,98,890	3,155	905	2,24,200	3,599
Total ...	1,969	4,40,740	6,803	2,955	6,29,650	10,174

EASTERN BENGAL STATE RAIL.

Abstract of principal commodities carried over the Eastern Bengal State September 1893, as compared with the same month of the year 1892.

STAPLES.	1893.		1892.		1893.	Increase.		1892.	Tons.	1893.
	Up.	Down.	Up.	Down.						
	Tons.	Tons.	Tons.	Tons.	Tons.					
Coal and Coke carried for the Public and Foreign Railways.	2,744	25,279	2,981	2,335	31,542					
Cotton, raw	1	41	5	190	42					
Cotton, manufactured—										
Twist and yarn, European	540	30								
Ditto, Indian	195	183								
Piece-goods, European	5,059	50	3,211	57	0,140	3,208				
Ditto, Indian	31	12								
Drugs and Chemicals—										
Intoxicating, other than opium	5	6								
Non-intoxicating—										
Cinchona bark					40		40			
Others	19	10								
Dyes and Tans										
Indigo	2									
Myrabolans										
Cutch	13				145		145			
Turmeric	3	121								
Aniline dyes	1									
Others	2	3								
Grain and pulse—										
Wheat	33	4								
Rice in the husk	2,473	5,580								
Rice not in the husk	12,480	2,491	8,005	1,030	24,808	7,325	17,583			
Jawar and bajra										
Gram and pulso	1,018	450	1,822	1,363						
Others	250	11								
Hides and skins—										
Hides of cattle—										
Dressed or tanned										
Raw	18	653								
Skins of sheep, &c.—										
Dressed or tanned										
Raw	1	45								
Horns	2	9			11		11			
Jute—										
Raw	342	52,419	72	65,280	52,701	65,352				12,591
Gunny bags and cloth	272	8,341	153	1,095	8,613	1,247	7,366			
Lac—										
Stick		1								
Shell	4				5		5			
Leather, manufactured	22	1			23		23			
Liquors—										
Beer	48									
Whisky										
Wines	55				103		103			
Metals—										
Copper, unwrought	1									
do	14	1								
Brass, do	0									
Copper, wrought			821	74	1,145	805	260			
Brass, do	100	53								
Iron	646	101								
Others	74	22								
Oils—										
Kerosine	7,745	14	5,270	24						
Castor	19	8								
Cocconut	87				8,234	5,615	2,619			
Others	273	88	260	43						
Oilseeds—										
Linseed		156								
Rape and mustard	101	646								
Til or junjili										
Poppy	2		317	720	1,080	1,037	52			
Earth-nuts										
Castor										
Others	20	74								
Opium	3				3		3			
Paper and pasteboard	52	2			54		54			
Provisions—										
Ghee	52	4								
Dried fruits and nuts	16		404	213	1,180	707	482			
Others	805	312								
Railway plant and rolling-stock carried for the Public and Foreign Railways—										
Locomotives, engines and tenders and parts thereof										
Carriages and trucks and parts thereof					11,621 1/2	10,089 1/2				8,408
Materials—										
Steel rails and fish-plates, sleepers and keys of steel and cast-iron.	16									
Other sorts		14								
Salt	4,314	41	3,807	21	4,355	3,828	527			
Salt-petre, &c.—										
Salt-petre	4				4		4			
Other saline substances										
Silk, raw—										
Foreign					18		18			
Indian		18								

(a) Includes 5,519 tons and 4,407 tons of locomotive coal during 1893 and 1892, respectively, carried for Revenue, for which no "Up" and "Down" registers maintained.

(b) Railway plant and rolling-stock 1,621 tons and 10,089 tons during the years 1893 and 1892, respectively, for which no "Up" and "Down" registers maintained.

STAPLES.	1893.		1892.		Total.		Increase.	Decrease.
	Up.	Down.	Up.	Down.	1893.	1892.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Silk piece-goods—								
Foreign .....								
Indian .....	304	243						
Spices—								
Betel-nuts .....	38	76						
Pepper .....	453	61	77	295	1,391	372	2,819	
Ginger .....		12						
Chillies .....	107	97						
Cardamoms .....	271	317			598		598	
Others .....								
Stone and lime								
Sugar, including sugar-	31	31						
Coffees and jaggery or	452	200	750	458	1,913	1,247		666
Other saccharine produce.								
	2	4,016	1	4,885	4,018	4,986	532	
	46	34	133	117	62	250		198
Manufactured	47	1,657						
Manufactured—								
Cloths .....			53	2,108	1,722	2,160		438
Other sorts .....	2	16						
Wool, raw .....	1	4			5		5	
Wool, manufactured—								
Wool-wools, European .....								
Ditto, Indian .....								
Shawls .....								
All other articles of merchandise	4,111	708	5,246	1,272	4,819	6,518		1,699
Total	46,353	1,08,737	28,514	81,753	1,67,200	1,24,763	55,213	23,791

Calcutta, the 20th December 1893. H. STUART, Examiner of Accounts.

Statement of principal commodities carried on the Eastern Bengal State Railway during the month of September 1893.

INCREASES.		Tons.	
Coal and coke	...	21,829	
Due to large despatches of coal for the public to Shamnagar, Kamkithara, Mamookdia-ghat, Goalundo, Kooabtea, Jalpaiguri and stations on the Bengal Central Railway.			
Cotton, manufactured	...	2,872	
Due to despatches from Calcutta for the poojah sales. Shamnagar shows a small increase in despatches of bales of cotton-yarn.			
Grain and pulses	...	17,583	
The increase is chiefly in despatches from Armeen-ghat, Chitpur, Ruttolla and stations on the Northern section to the eastern districts. The crops in these districts suffered from flood.			
DECREASES.		Tons.	
Jute, raw	...	12,591	
Atrai, Kooabtea, Pungsa and Goalundo show large decreases under this head.			
Gunny-bags and cloth	...	7,366	
Jalpaiguri shows increases under this head.			
Oils	...	2,619	
Partly due to prohibition of carriage by boat of kerosine-oil within certain limits of the port of Calcutta and partly to extension of bulk oil traffic.			
Railway plant and rolling-stock	...	8,468	
Due to completion of works on the Barsoo-Kissen-gunge branch and the C. B. S. Railway.			

The 19th December 1893. P. D. BARCLAY, Traffic Superintendent.











